CITY OF SANTA CRUZ WATER DEPARTMENT

CONSUMER CONFIDENCE REPORT

2020

Este informe contiene información muy importante sobre su agua para beber. Favor de comunicarse el Departamento de Agua de la Ciudad de Santa Cruz a (831) 420-5220 o 212 Locust Street, Suite D; Santa Cruz, CA 95060 para asistirlo en español.

WHAT IS THIS REPORT?

This annual Consumer Confidence Report provides a summary of the water quality tested in 2020 and has been prepared to inform the City of Santa Cruz Water customers about their drinking water quality. Included in this report are details about where your water comes from, what it contains, and how it compares to Federal and State drinking water standards. The City of Santa Cruz vigilantly safeguards its water supplies and provides thorough treatment to ensure that our customers receive high quality drinking water. We are committed to providing our customers with accurate information about their drinking water quality. **In 2020, as in years past, your tap water met all U.S. Environmental Protection Agency and State of California drinking water health standards.**

WHERE DOES OUR WATER COME FROM?

To provide water for our service area, the City of Santa Cruz depends on water supplies from four locales: the North Coast sources, San Lorenzo River, Loch Lomond Reservoir and the Live Oak wells. Except for groundwater from the Live Oak wells, all other water sources are from surface water diversions or groundwater under the direct influence of surface water, which are dependent on annual rainfall and runoff.

The North Coast sources consist of surface water diversions from three coastal streams and one natural spring. Due to the excellent water quality and the lowest production cost, these North Coast sources are used to the greatest extent possible. These source waters are conveyed to the City's Graham Hill Water Treatment Plant for treatment. The use of these sources by the City dates back to 1890.

San Lorenzo River flows are diverted to the Graham Hill Water Treatment Plant for treatment. Three Tait wells (groundwater under the direct influence of surface water) located next to the San Lorenzo River and hydraulically connected, are included in the City's water right. Additionally, the City can divert water from the San Lorenzo River in Felton to store in Loch Lomond Reservoir. This water is used to supplement storage in the reservoir during dry years, when natural water inflow from Newell Creek is low.

Loch Lomond Reservoir, constructed in 1960, provides surface water storage on Newell Creek. Water from the reservoir is treated at the Graham Hill Water Treatment Plant. Additionally, the reservoir and surrounding watershed are used for public recreation purposes, including fishing, boating, hiking and picnicking.

The Live Oak well system consists of four groundwater wells and two small groundwater treatment plants located in the southeast portion of the City's service area. Three of these wells draw directly from the Purisima Aquifer, while one well draws from both the Purisima and Santa Margarita Aquifers. During the late spring, summer and early fall seasons, when surface water flows may be inadequate to meet the daily customer water demand, this supplemental groundwater supply is pumped from the four Live Oak Wells and treated on site at two groundwater treatment plants and distributed to customers in the southeast service area.

Additionally, to supplement water supply in August 2020, we received 2 million gallons of water from Soquel Creek Water District through an intertie connection.

IS OUR WATER VULNERABLE TO CONTAMINATION?

Since 1996, water suppliers who rely on surface water have been required to conduct assessments, called Watershed Sanitary Surveys of their water sources to identify potential sources of contamination and their respective treatment plants' ability to treat those potential contaminants. Assessments include a delineation of the area around water sources and a review of activities with the potential to release contaminants within the delineated area. Watershed Sanitary Surveys are required to be conducted every five years. A number of potentially contaminating activities exist in the area of the Santa Cruz water sources, including commercial cannabis cultivation, wastewater and urban runoff, confined animal facilities, unauthorized activities, roads (including timber harvest roads), mining and quarry activities, geologic hazards and fires including landslides after significant rains, chemical spills, pesticides and herbicides, among others. Also, a number of legacy land disturbances including historic timber harvest roads and isolated industrial operations that resulted in contaminant plumes, which still have the potential to impact drinking water sources. To provide the highest quality drinking water possible, the City works proactively with a number of partners to reduce or eliminate potential contaminant sources and prioritizes the use of the highest quality source waters during times when the drinking water system is most vulnerable (i.e. during storm runoff periods). This watershed protection effort also provides benefits to other "beneficial users" of the watersheds like steelhead trout and Coho salmon. In 2018, the Watershed section of the City Water Department completed an update to the 2013 Drinking Watershed Sanitary Survey of the San Lorenzo Valley and North Coast Watersheds, which can be viewed at www.cityofsantacruz.com/SanitarySurvey2018 . Vulnerability assessments of drinking water sources for the Santa Cruz Water Department were completed in 2003-2017. The sources are considered most vulnerable to the following activities associated with contaminants detected in the water supply: septic and sewer collection systems; and surface water - streams, lakes and rivers. In addition, these sources are considered most vulnerable to these activities not associated with any detected contaminants: fertilizer, pesticide and herbicide applications; fleet/truck/bus terminals; plastics/synthetics producers; automobile repair shops and gas stations; machine shops; and electrical and electronic manufacturing. You may request a summary of the vulnerability assessments to be sent to you by contacting Chris Berry, Watershed Compliance Manager at (831) 420-5483. In response to the CZU August Lightning Complex Fire, the City revised production procedures and increased water quality sampling to ensure protection of the City's drinking water.

WHY ARE THERE CONTAMINANTS IN DRINKING WATER?

In order to ensure that tap water is safe to drink, the U.S. EPA and the State Water Resources Control Board prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. State Board regulations also establish limits for contaminants in bottled water that provide the same protection for public health https://www.cdph.ca.gov/Programs/CEH/DFDCS/Pages/FDBPrograms/FoodSafetyProgram/Water.aspx .

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 U. S. EPA's Safe Drinking Water Hotline (1-800-426-4791).

The sources of drinking water (both tap 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 activities. Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses, parasites 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 byproducts of industrial processes and petroleum production, and can 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

DO I NEED TO TAKE SPECIAL PRECAUTIONS?

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 about drinking water from their health care providers. US-EPA/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 (1-800-426-4791). *Cryptosporidium* is a microbial pathogen (parasite) found in surface water throughout the United States. Although filtration removes *Cryptosporidium*, the most commonly used filtration methods cannot guarantee 100 percent removal. *Cryptosporidium* monitoring confirms the presence of these organisms in our raw source waters. Current test methods do not allow us to determine if these organisms are dead or if they are capable of causing disease. **Ingestion of *Cryptosporidium* may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immune-compromised people, infants and small children, and the elderly are at greater risk of developing life-threatening illness. We encourage immune-compromised individuals to consult with their doctors regarding appropriate precautions to take to avoid infection. *Cryptosporidium* must be ingested to cause disease, and it may be spread through means other than drinking water** https://www.cdc.gov/parasites/water.html **.** Based on the *Cryptosporidium* results from the Long Term 2 Enhanced Surface Water Treatment Rule Round Two (2015-2017), the Graham Hill Water Treatment Plant (GHWTP) source waters were classified in Bin 2 by the State Water Resources Control Board on February 20, 2019. With a Bin 2 classification, Santa Cruz Water Department must provide an additional 1.0 log of *Cryptosporidium* treatment for a total required 3.0 log reduction using lowered individual and combined filter turbidity standards at the GHWTP, as required by 40 CFR 141.711.

INORGANIC CONTAMINANTS WITH ACTION LEVELS

If present, elevated levels of lead can cause serious health problems, especially for pregnant women, young children and infants. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The City of Santa Cruz Water Department is responsible for providing high quality drinking water, but cannot control the variety of materials used in household plumbing components. **When your water has been sitting for several hours, you can minimize the potential for lead exposure from brass faucets or lead solder by flushing your tap water 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. Use only cold tap water to drink, cook, mix juice or prepare baby formula. If you need hot water for cooking, take it from the cold water tap and heat it.** 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 (1-800-426-4791) or at http://www.epa.gov/lead . In 2018, tap water samples were collected from 34 Santa Cruz area homes after their water sat unused overnight for six hours or more, then analyzed for lead and copper as required by the Lead and Copper Rule https://www.epa.gov/dwreginfo/lead-and-copper-rule . The City of Santa Cruz has a three-year waiver for required Lead and Copper Rule monitoring frequency, the next study will be conducted in the summer of 2021. In 2019-2019, 24 schools within the Santa Cruz service area were tested for lead per the free Lead Testing Schools program https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.html.

WATER QUALITY DATA

Water at various locations in the distribution system is tested by the City of Santa Cruz Water Quality Laboratory, a California Environmental Laboratory Accreditation Program certified laboratory. Test results from the distribution system and our source water analyses are provided in the Water Quality Table of Detected Contaminants on pages 4-6 of this report. Some of the data in this report, though representative, are more than one year old. The State Water Resources

Control Board, Division of Drinking Water allows the City to monitor for some contaminants less than once per year, because the concentrations of these contaminants do not change frequently.

Laboratory analysis was also performed for many constituents other than those listed in the tables; only those constituents detected in the tap water are shown. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. To interpret the tables, you will need the following definitions:

Definition of Terms

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

LRAA: Locational Running Annual Average: The locational quarterly average of the most recent 12 months of data.

MCL: Maximum Contaminant Level: 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.

MCLG: Maximum Contaminant Level Goal: 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.

MRDL: Maximum Residual Disinfectant Level: 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.

MRDLG: Maximum Residual Disinfectant Level Goal: 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.

N/A: Not Applicable

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

PHG: Public Health Goal: 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, Office of Environmental Health Hazard Assessment (OEHHA).

SDWS: Secondary Drinking Water Standards: MCLs for contaminants that may adversely affect the taste, odor or appearance of drinking water. These aesthetic considerations are not considered as health concerns.

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

WATER QUALITY TABLE OF DETECTED CONTAMINANTS

Regulated Contaminants with Primary Drinking Water Standards								
Contaminant (units)	**PHG or MCLG**	**MCL**	**Treated Water Average[2]**	**Source Water Range[1]**		**Sample Date**	**Violation**	**Major Sources in Drinking Water**
				Low	**High**			
Aluminum (mg/L)	0.6	1	0.02	< 0.02	0.51	2019-2020	No	Erosion of natural deposits; residue from some surface water treatment processes
Arsenic (µg/L)	0.004	10	< 1.0	< 1.0	3.0	2019-2020	No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Fluoride (mg/L)	1	2.0	0.2	< 0.1	0.55	2020	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Gross Alpha Particle Activity (pCi/L)	0	15	< 3.00	< 3.00	< 3.00	2017	No	Erosion of natural deposits
Nitrate as N-Nitrogen (mg/L)	10 (as N)	10 (as N)	0.05 (as N)	< 0.02 (as N)	0.14 (as N)	2020	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits

Reporting of Turbidity Results						
Contaminant	**MCL**	**PHG**	**Level Found**	**Sample Date**	**Violation**	**Typical Source of Contamination**
Turbidity	TT = 1 NTU TT = 95% of samples ≤ 0.15 NTU	N/A	0.03 NTU 100%	2020	No	Soil runoff
Turbidity is a measure of the cloudiness of the water. We monitor it because it is an excellent indicator of the effectiveness of our filtration performance						

Microbiological Contaminants							
Contaminant	**PHG or MCLG**	**MCL**	**Treated Water[2]**	**Source Water[1]**	**Sample Date**	**Violation**	**Major Sources of Contamination**
Total Coliform Bacteria	0	less than 5% positive	1 positive		2020	No	Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful bacteria are present
E. Coli	0	0	0 positive		2020	No	*E. coli* are bacteria whose presence indicates that the water may be contaminated with human or animal wastes

Contaminants Regulated by MRDL								
Contaminant (units)	**PHG**	**PDWS MRDL**	**Treated Water Average[2]**	**Treated Water Range[2]**		**Sample Date**	**Violation**	**Typical Source of Contamination**
				Low	**High**			
Chlorine (mg/L)	4	4	0.87	0.06	1.91	2020	No	Drinking water disinfectant added for treatment

Disinfection Byproduct Contaminants under Stage 2 DBP Rule								
Contaminant (units)	**PHG MCLG**	**MCL**	**Treated Water[2]**	**Treated Water Range[2]**		**Sample Date**	**Violation**	**Typical Source of Contamination**
				Low	**High**			
TTHM [Total Trihalomethanes] (µg/L)	N/A	80 (LRAA)	60 (LRAA)	14	69	2020	No	By-product of drinking water disinfection
HAA5 [Haloacetic Acids (five)] (µg/L)	N/A	60 (LRAA)	34 (LRAA)	4	43	2020	No	By-product of drinking water disinfection

Inorganic Contaminants with Action Levels							
Contaminant (units)	**PHG**	**AL**	**Tap Water 90th Percentile[3]**	**# of Samples Exceeding AL[3]**	**Sample Date**	**Exceeds AL**	**Typical Source of Contamination**
Copper (mg/L)	0.3	1.3	0.4	0/34	2018	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (µg/L)	0.2	15	< 2	0/34	2018	No	Internal corrosion of household plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

Contaminants with Secondary Drinking Water Standards (SDWS)						
Contaminant (units)	**SDWS MCL**	**Treated Water Average[2]**	**Treated Water Range[2]**		**Sample Date**	**Typical Source of Contamination**
			Low	**High**		
Iron (µg/L)	300	< 20	< 20	160	2020	Leaching from natural deposits; industrial wastes
Chloride (mg/L)	500	26	16	64	2020	Runoff/leaching from natural deposits; seawater influence
Color (C.U.)	15	1	1	6	2020	Naturally-occurring organic materials
Manganese (µg/L)	50	< 2	< 2	22	2020	Leaching from natural deposits
Specific Conductance (µmhos/cm)	1600	462	395	815	2020	Substances that form ions when in water; seawater influence
Sulfate (mg/L)	500	78	62	140	2020	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (mg/L	1000	276	250	510	2019-2020	Runoff/leaching from natural deposits

Other Monitoring Results					
Constituent (units)	**Treated Water Average[2]**	**Treated Water Range[2]**		**Sample Date**	**Typical Source of Contamination**
		Low	**High**		
Hardness (mg/L)	172	144	308	2020	Hardness is the sum of naturally occurring cations present in the water, generally calcium and magnesium
Sodium (mg/L)	28	23	52	2019-2020	Sodium refers to the salt present in the water from runoff/leaching from natural deposits and saltwater influence

Other Unregulated Contaminants					
Constituent (units)	**Treated Water Average[2]**	**Treated Water Range[2]**		**Sample Date**	**Typical Source of Contamination**
		Low	**High**		
Hexavalent Chromium (µg/L)	0.05	<0.020	0.08	2020	Naturally occurring in rocks, plants, soil, volcanic dust, and animals

Unregulated Contaminants – UCMR4					
Contaminant (units)	**Raw Water Average[1]**	**Raw Water Range[1]**		**Sample Dates**	
		Low	**High**		
Total Organic Carbon (mg/L)	2.6	1.7	4.1	2018/2019	
Bromide (µg/L)	53	42	64	2018/2019	
Contaminant (units)	**Treated Water Average[2]**	**Treated Water Range[2]**		**Sample Dates**	
		Low	**High**		
Manganese (µg/L)	2.4	< 0.4	11	2018/2019	
HAA6Br[4] (µg/L)	17	11	26	2018/2019	
HAA9[5] (µg/L)	49	31	70	2018/2019	

[1]Untreated water from the raw sources [2]Treated water from treatment plants and/or water mains [3]Water from 34 customers' household taps

[4]HAA6Br: Bromochloroacetic acid, bromodichloroacetic acid, dibromoacetic acid, dibromochloroacetic acid, monobromoacetic acid, and tribromoacetic acid [5]HAA9: Bromochloroacetic acid, bromodichloroacetic acid, chlorodibromoacetic acid, dibromoacetic acid, dichloroacetic acid, monobromoacetic acid, monochloroacetic acid, tribromoacetic acid, and trichloroacetic acid.

Unregulated contaminants are those for which US EPA has not established drinking water standards. Unregulated contaminant monitoring helps U.S. EPA and the State Water Resources Control Board to determine where certain contaminants occur and whether the contaminants need to be regulated.

Abbreviations and Data Table Units

NTU: Nephelometric Turbidity Units
pCi/L: picocuries per liter (a measurement of radioactivity)
mg/L: milligrams per liter or parts per million (ppm); time equivalence of 1 mg/L equals a 1 second in 11.5 days
µg/L: micrograms per liter or parts per billion (ppb); time equivalence of 1 µg/L equals a 1 second in nearly 32 years
µmhos/cm: a measure of electrical conductivity

We hope this Consumer Confidence Report is valuable to you. If you have any questions or comments about your drinking water, please contact one of the City of Santa Cruz Water Department staff listed below.

WATER ADMINISTRATION
Rosemary Menard, Water Director
212 Locust St, Suite A
Santa Cruz, CA 95060
Phone: (831) 420-5200
Fax: (831) 420-5201

WATER QUALITY LABORATORY
Lindsay Neun, Water Quality Manager
715 Graham Hill Road
Santa Cruz, CA 95060
Phone: (831) 420-5486
Email: WaterQuality@cityofsantacruz.com
CCR 2020: www.cityofsantacruz.com/ccr2020

WATER RESOURCES
Chris Berry, Watershed Compliance Manager
715 Graham Hill Road
Santa Cruz, CA 95060
Phone: (831) 420-5483
Email: WaterResources@cityofsantacruz.com

You can also find additional information on the Water Department's activities and events including Water Conservation, Loch Lomond Recreation Area, Engineering projects, Water Commission and more on the City's website http://www.cityofsantacruz.com/government/city-departments/water**. Meetings of the City Council and Water Commission provide excellent opportunities for you to get involved in issues related to drinking water. Their agendas are posted on the website listed above, at City Hall, or you can call the Water Department at (831) 420-5200 to find out more. We welcome your attendance and input.**

SANTA CRUZ CITY COUNCIL
809 Center Street, Room 10
Santa Cruz, CA 95060
Phone: (831) 420-5020
E-mail: CityCouncil@cityofsantacruz.com

SANTA CRUZ WATER COMMISSION
Contact the Water Commission through the Water Department at (831) 420-5200
Water Commission meetings are scheduled for the first Monday of each month at 7:00 pm.
https://www.cityofsantacruz.com/government/city-departments/water/city-water-commission

Other sources of information:

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER
Monterey District Office
(831) 655-6939
http://www.waterboards.ca.gov/drinking_water/programs/index.shtml
http://www.swrcb.ca.gov/drinking_water/certlic/drinkingwater/Lawbook.shtml

U.S. ENVIRONMENTAL PROTECTION AGENCY (U.S. EPA)
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460
(202) 566-1729
http://water.epa.gov/drink/index.cfm