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**Pay Your Water Bill Online!** Customers now have the ability to make payments online by accessing the City's website at <https://arcata.merchantransact.com/default.aspx>. The online payment system provides convenient paperless statements via email, ability to view and pay bills online, obtain account usage information, 24/7 account access, reduced time paying bills, and saving on stamps. For questions regarding the online process, please contact the Finance Department at (707) 822-5951.

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## Jacoby Creek Water District 2019 Consumer Confidence Report

May 2020

The City of Arcata (City) is responsible for providing safe, reliable, high quality drinking water to the Jacoby Creek Water District (District). The Consumer Confidence Report, or CCR, is an annual water quality report that the City is required to provide to customers in accordance with requirements of the Safe Drinking Water Act. The purpose of the CCR is to raise customers' awareness of the quality of their drinking water, where their drinking water comes from and the importance of protecting drinking water sources. Please take a moment to read through this report to learn about the quality of your drinking water. This report shows the results of drinking water monitoring for the period of January 1 - December 31, 2019.

**Este informe contiene información muy importante sobre su agua para beber. Favor de comunicarse Ciudad de Arcata a 707-822-5953 para asistirlo en español.**

In 2019, results from our water quality monitoring and testing program indicate that our water quality is very good, as has consistently been the case in past years. None of these constituents were detected at a level higher than allowed by drinking water regulations. Sampling results for constituents that were detected in your drinking water are presented in the [Sampling Results](#) section of this report.

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### *Where Does My Drinking Water Come From?*

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The source of drinking water for the District is groundwater, not under the direct influence of surface water, purchased from [Humboldt Bay Municipal Water District](#) (HBMWD). This classification is important due to the regulations that HBMWD, the City and the District must follow to ensure water quality. HBMWD draws source water from wells below the bed of the Mad River northeast of Arcata. The water-bearing ground below the river is called an aquifer. The wells, called Ranney Wells, draw water from the sands and gravel of the aquifer at depths of 60 to 90 feet, thereby providing a natural filtration process. During the summer, this naturally filtered water is disinfected with chlorine and delivered to the City

via transmission lines to the Alliance Road Transfer Station, the Wymore Road Intertie and the Aldergrove Road Intertie. During the winter, the water is further treated at a Turbidity Reduction Facility, which reduces the occasional turbidity (cloudiness) in the source water. While turbidity itself is not a health concern, at elevated levels, turbidity could potentially interfere with the disinfection process.

Prior to distribution, the City adds fluoride to an optimal level to prevent tooth decay. You may obtain more information about fluoridation, oral health, and current issues at [http://www.waterboards.ca.gov/drinking\\_water/certlic/drinkingwater/Fluoridation.shtml](http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/Fluoridation.shtml).

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### *Source Assessment & Vulnerability Assessment*

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A Drinking Water Source Assessment conducted by the California Drinking Water Source Assessment and Protection Program, completed in August 2002, classified HBMWD's Ranney Wells as a groundwater source which is most vulnerable to the following activities not associated with any detected contaminants: lumber processing and manufacturing, low density septic systems, wood preserving/treating and wood/pulp/paper processing and mills. Due to the detection of aluminum, Ranney Wells are considered vulnerable to activities that may have contributed to, or caused the release of aluminum. In particular, aluminum is believed to be associated with the residue from some surface water treatment processes and erosion of natural deposits. Due to the detection of barium, Ranney Wells are considered vulnerable to activities that may have contributed to, or caused the release of barium. In particular, barium is believed to be associated with discharges of oil drilling wastes and metal refineries and erosion of natural deposits.

The Drinking Water Source Assessment report is available through the State Water Resources Control Board, Division of Drinking Water, District 01 at (530) 224-4800 or 364 Knollcrest Drive, Suite 101, Redding, CA 96002.

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### *Additional Information about Drinking Water*

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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.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (USEPA) and the State Water Resources Control Board (State 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. For more information on bottled and vended water regulations and quality standards visit the California Department of Public Health at <https://www.cdph.ca.gov/Programs/CEH/DFDCS/Pages/FDBPrograms/FoodSafetyProgram/Water.aspx>

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## *Drinking Water and Your Health*

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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 the 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 (1-800-426-4791).

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, 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. 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 (1-800-426-4791).

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## *Sampling Results*

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**Tables 1, 2, 3, 4, 5 and 6 list all of the drinking water contaminants that were detected during the most recent sampling for the constituent.** The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. Drinking water regulations allow us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the

data, though representative of the water quality, were collected prior to 2019. Representative samples are collected at various points in the drinking water treatment and distribution systems. Sample Source identified in the sample results table are described below:

- “HBMWD” - data provided by HBMWD and representative of untreated source water or fully treated water purchased from HBMWD.
- “Distribution System”- collected from locations throughout the distribution system and representative of treated water delivered to customers.

#### TERMS USED IN THIS REPORT

**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 (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.

**N/A:** Not applicable

**ND:** Not detectable at testing limit

**NTU:** Nephelometric Turbidity Units

**ppb:** Parts per billion or micrograms per liter ( $\mu\text{g/L}$ ). One ppb is equivalent to one second in nearly 32 years.

**ppm:** Parts per million or milligrams per liter ( $\text{mg/L}$ ). One ppm is equivalent to one second in 11.5 days.

**Primary Drinking Water Standards (PDWS):** MCLs, MRDLs and Treatment techniques (TTs) for contaminants that affect health along with their monitoring and reporting 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.

**$\mu\text{S/cm}$ :** microSeimens per centimeter

**TABLE 1 - SAMPLING RESULTS SHOWING THE DETECTION OF COLIFORM BACTERIA IN 2019**

Microbiological Contaminants	Highest No. of Detections	No. of Months in Violation	MCL	MCLG	Typical Source of Bacteria
Total Coliform Bacteria (state Total Coliform Rule)	0 (In a month)	0	1 positive monthly sample	0	Naturally present in the environment.
<i>E. coli</i> (state Total Coliform Rule)	0 (In the year)	0	A routine sample and a repeat sample are total coliform positive, and one of these is also fecal coliform or <i>E. coli</i> positive	0	Human and animal fecal waste.
<i>E. coli</i> (federal Revised Total Coliform Rule)	0 (In the year)	0	See Footnote (a)	0	Human and animal fecal waste.

(a) Routine and repeat samples are total coliform-positive and either is *E. coli*-positive or system fails to take repeat samples following *E. coli*-positive routine sample or system fails to analyze total coliform-positive repeat sample for *E. coli*.

**TABLE 2 - SAMPLING RESULTS FOR SODIUM AND HARDNESS**

Constituent (reporting units)	Sample Source	Year Sampled	Average	Range	MCL	PHG	Typical Source of Contaminant
Sodium (ppm)	Distribution System	2016	3.9	N/A	None	None	Salt present in the water and is generally naturally occurring.
Hardness (ppm as CaCO <sub>3</sub> )	Distribution System	2016	100	N/A	None	None	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring.

Lead and copper monitoring is conducted throughout the water distribution system to determine whether there is any evidence of lead or copper in the tap water of our community. 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 City 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 your exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/lead> and at <https://www.epa.gov/dwreginfo/lead-and-copper-rule>. Lead and copper monitoring results are presented in Table 3.

In 2017 and 2018, the State Water Resources Control Board Division of Drinking Water (DDW) issued new guidelines for lead testing in K-12 schools. Public schools served by a public water system were required to have their drinking water sampled for lead. Private schools served by a public water system could request to have their drinking water sampled for lead. The City was responsible for conducting drinking water sampling and providing technical assistance if an elevated lead sample was found. Mandatory and voluntary school drinking water lead testing concluded on July 1, 2019. The City sampled one school for lead in 2019.

<b>TABLE 3 - SAMPLING RESULTS SHOWING THE DETECTION OF LEAD AND COPPER (testing conducted in 2019)</b>							
<b>Constituent</b> (reporting units)	<b>No. of Samples Collected</b>	<b>90<sup>th</sup> Percentile Level Detected</b>	<b>No. of Sites Exceeding the AL</b>	<b>AL</b>	<b>PHG</b>	<b>No. of Schools Requesting Lead Sampling</b>	<b>Typical Source of Contaminant</b>
Lead (ppb)	11	2.1	0	15	0.2	1	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits.
Copper (ppm)	11	0.83	0	1.3	0.3	N/A	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.

For questions about any aspect of lead testing of drinking water in California schools, send an email to [DDW-PLU@waterboards.ca.gov](mailto:DDW-PLU@waterboards.ca.gov), call (916) 449-5646 or visit: [https://www.waterboards.ca.gov/drinking\\_water/certlic/drinkingwater/leadsamplinginschools.html](https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.html).

USEPA El plomo del agua potable en las escuelas y los centros de cuidado infantil:

<https://espanol.epa.gov/espanol/el-plomo-del-agua-potable-en-las-escuelas-y-los-centros-de-cuidado-infantil>

**TABLE 4 - DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD**

Constituent (reporting units)	Sample Source	Year Sampled	Average	Range	MCL or MRDL	PHG or MRDLG	Typical Source of Contaminant
Fluoride (ppm)	Distribution System	2019	0.52	ND – 0.94	2.0	1	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories.
Chlorine (ppm)	Distribution System	2019	0.4	0.2 - 0.7	4.0 (as Cl <sub>2</sub> )	4.0 (as Cl <sub>2</sub> )	Drinking water disinfectant added for treatment.
TTHMs (ppb) Total Trihalomethanes	Distribution System	2019	11	N/A	80	N/A	By-product of drinking water chlorination.
HAA5 (ppb) Haloacetic Acids	Distribution System	2019	3.2	N/A	60	N/A	By-product of drinking water chlorination.

**TABLE 5 - DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD**

Constituent (reporting units)	Sample Source	Year Sampled	Average	Range	Secondary MCL	Typical Source of Contaminant
Chloride (ppm)	Distribution System	2016	4.0	N/A	500	Runoff/leaching from natural deposits; seawater influence.
Color (color units)	HBMWD	2016	5.0	N/A	15	Naturally-occurring organic materials.
Specific Conductance (µS/cm)	HBMWD	2018	130	N/A	1600	Substances that form ions when in water; seawater influence.
Sulfate (ppm)	Distribution System	2016	11	N/A	500	Runoff/leaching from natural deposits; industrial wastes.
Total Dissolved Solids (ppm)	Distribution System	2016	120	N/A	1000	Runoff/leaching from natural deposits.
Turbidity (NTU)	Distribution System	2019	0.11	0.02 – 0.89	5	Soil runoff. See Footnote (b).

(b) Turbidity is a measure of the cloudiness of the water and is a good indicator of water quality. Turbidity has no health effects. However, high levels of turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms.



## Additional Sampling

**TABLE 6 - SAMPLE RESULTS OF NON-REGULATED TESTING**

Constituent (reporting units)	Sample Source/Location	Year Sampled	Average	Range	Additional Information
Alkalinity (ppm as CaCO <sub>3</sub> )	Distribution System	2016	83	N/A	Alkalinity is a measure of the buffering capacity of water or its ability to resist change in pH.
Corrosivity (Langlier Units)	Distribution System	2016	-0.28	N/A	Corrosivity values in this range indicate that the water is slightly corrosive on the Langlier Index.

### Unregulated Contaminant Monitoring Rule (UCMR)

As part of the federal drinking water program, USEPA issues a list of currently unregulated contaminants to be tested by public water systems throughout the nation. This process occurs every five years pursuant to the Unregulated Contaminant Monitoring Rule (UCMR). The purpose of the UCMR program is to determine the prevalence of unregulated contaminants in drinking water. Results of this testing help USEPA determine whether to regulate new contaminants for protection of public health.

There have been four cycles of monitoring: UCMR 1 (2001-2003), UCMR 2 (2008-2010), UCMR 3 (2013-2015) and UCMR 4 (2018-2020). The City and Humboldt Bay Municipal Water District have participated UCMR testing. Table 7 shows UCMR 4 sampling results from HBMWD source water. Results of UCMR 3 constituents detected at the entry point to the City's distribution system are presented in Table 8. The City is scheduled to begin UCMR 4 monitoring in 2020.

**TABLE 7 - SAMPLE RESULTS OF UCMR 4 - DETECTED CHEMICALS (testing conducted in 2019 by HBMWD)**

Constituent (reporting units)	Average	Range	Notification Level	Health Effect Language
Total Organic Carbon (ppb)	600	100-1100	N/A	Indicator of the potential to form haloacetic acids during water treatment. Total Organic Carbon has no known health effect.



**TABLE 8 - SAMPLE RESULTS OF UCMR 3 - DETECTED CHEMICALS (testing conducted in 2015 by the City)**

Constituent (reporting units)	Level Detected		Levels & Goals			Likely Source
	Average	Range	Notification Level	MCL	PHG	
Chromium VI/ Hexavalent Chromium (ppb)	0.19	0.16 – 0.21	N/A	10	0.02	Naturally occurring from geological formations, also from manufacturing of textile dyes, wood preservation, leather tanning, and anti-corrosion coatings.
Chromium, Total (ppb)	0.24	0.21 – 0.27	N/A	50	N/A	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits.
Strontium, Total (ppb)	270	260 – 280	N/A	N/A	N/A	Strontium is a silvery metal that rapidly turns yellowish in air. Strontium is found naturally as a non-radioactive element. Strontium has 16 known isotopes. Naturally occurring strontium is found as four stable isotopes Sr-84, -86, -87, and -88. Twelve other isotopes are radioactive.
Vanadium, Total (ppb)	0.48	0.47 – 0.49	50	N/A	N/A	Naturally-occurring; the primary possible contaminating activity is steel manufacturing and in association with hazardous waste sites.
Chlorate (ppb)	60	ND – 120	800	N/A	N/A	Agricultural defoliant or desiccant; used in production of chlorine dioxide.

### *Additional Information*

The City strives to provide excellent quality water and service to our customers. If you have any questions about your drinking water or this report call Rachel Hernandez, Environmental Compliance Officer at (707) 822-2148. You may also attend a regularly scheduled Arcata City Council meeting held the first and third Wednesday of each month at 6 p.m. in the Council Chamber, 736 F Street, Arcata, CA, to hear, discuss, or deliberate upon any item or subject within the City's jurisdiction.

**Landlords.** Tenants may not receive this report since they may not be direct customers of the City. You should make this report available to such people by posting it in a conspicuous place, distributing copies to all tenants or by directing tenants to <http://www.cityofarcata.org/327/Water-Quality-Reports>.