Annual Consumer Confidence Report

Spring 2022

The Rubidoux Community Services District is pleased to present to you this year's Annual Consumer Confidence Report. This report is designed to inform you about the quality of water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and to protect our water resources. We are committed to ensuring the quality of your water. This report shows the quality of your water and what it means.

Este informe contiene información muy importante sobre su agua para beber. Favor de comunicarse Rubidoux Community Services District a (951) 684-7580 para asistirlo en enspañol.

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*, which 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 byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.
- *Radioactive contaminants*, which 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 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.

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 visiting the USEPA's website at http://epa.gov/ground-water-and-drinking-water or by calling the USEPA's Safe Drinking Water Hotline (800-426-4791), the National Radon Helpline (800-557-2366), or the California Dept. of Public Health Indoor Radon Program (800-745-7236).

The water Rubidoux Community Services District delivers to you comes from groundwater, which we currently pump from six active drinking water wells (Wells 1A, 2, 4, 6, 8, and 18). All of our wells are located within the Rubidoux Community Services District boundaries and draw from the Riverside South Groundwater Basin. Water from Wells 4 and 6 is treated for removal of 1,2,3-trichloropropane (1,2,3-TCP) and is then treated at the District's Anita B. Smith Nitrate Removal Facility to reduce the concentration of nitrate before it enters the distribution system. To reduce the concentration of manganese in the water delivered to customers, water from Wells 1A, 8, and 18 is treated at the District's Leland J. Thompson Water Treatment Plant. The water is then blended with water from Well 2 before it enters the distribution system. Prior to blending, water from Well 2 is treated for removal of 1,2,3-TCP. A source water assessment was conducted for Well 1A in June 2019, prior to operation of Well 1A. No vulnerabilities were identified, and a copy of the source water assessment is available for review by contacting the District.

We routinely monitor for contaminants in your drinking water according to Federal and State laws. Tables 1 through 7 list all of the drinking water contaminants that were detected during the period of **January 1st to December 31st, 2021**. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The State allows us to monitor for some 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, are more than one year old.

In this report are terms and abbreviations you might not be familiar with. To help you better understand these terms, we have provided the following definitions:

Parts per million (ppm) or milligrams per liter (mg/L) – a measure of concentration in water. One part per million (or milligram per liter) corresponds to one second in 11.5 days.

Parts per billion (ppb) or micrograms per liter (µg/L) – a measure of concentration in water. One part per billion (or microgram per liter) corresponds to one second in nearly 32 years.

Parts per trillion (ppt) or nanograms per liter (ng/L) – a measure of concentration in water. One part per trillion (or nanogram per liter) corresponds to one second in nearly 32,000 years.

Picocuries per liter (pCi/L) – a measure of the radioactivity in water.

Microsiemens per centimeter (µS/cm) – a measure of the electrical conductivity of water.

Nephelometric Turbidity Unit (NTU) – a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

Regulatory Action Level (AL) or Notification Level (NL) – the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

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.

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.

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. *Note: PHGs do not take into account economic or technological feasibility.*

Primary Drinking Water Standard (PDWS) – MCLs, MRDLs, and treatment techniques (TTs) for contaminants that affect health, along with their monitoring and reporting requirements.

Secondary Drinking Water Standard (SDWS) – MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect health at the MCL levels.

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.

Treatment Technique (TT) – MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect health at the MCL levels.

No violations of the nitrate MCL (10 mg/L of nitrate as nitrogen) occurred at any time during 2021. As shown in Table 2, nitrate is present in detectable quantities in the water at an average concentration of 6.5 mg/L. Nitrate in drinking water at levels above 10 mg/L is a health risk for infants of less than six months of age. Such nitrate levels in drinking water can interfere with the capacity of the infant's blood to carry oxygen, resulting in a serious illness; symptoms include shortness of breath and blueness of the skin. Nitrate levels above 10 mg/L may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women and those with certain specific enzyme deficiencies. If you are caring for an infant, or you are pregnant, you should seek advice from your health care provider. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity.

Turbidity is a measure of the cloudiness of the water and 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, which can include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

The State Water Resources Control Board, Division of Drinking Water (State Board) sets drinking water standards and has determined that chlorine is a health concern at certain levels of exposure. Chlorine is added to drinking water as a disinfectant to kill bacteria and other disease-causing microorganisms and is also added to provide continuous disinfection throughout the distribution system. Disinfection is required for both surface water systems and groundwater systems. However, at high doses for extended periods of time, chlorine has been shown to affect blood and the liver in laboratory animals. The State Board has set a drinking water standard for chlorine to protect against the risk of these adverse effects. Drinking water which meets this State Board standard is associated with little to none of this risk and should be considered safe with respect to chlorine.

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. We found coliforms indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct an assessment to identify problems and to correct any problems that were found during the assessment. During 2021, we were required to conduct one Level 1 assessment, and one Level 1 assessment was completed. In addition, we were required to take four corrective actions, and we completed all four of these actions.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, persons 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).

If you have any questions about this report or concerning your water utility, please contact Jeff Sims, District General Manager, at the District office, (951) 684-7580. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled meetings. They are held on the first and third Thursdays of each month at 4:00 p.m. at 3590 Rubidoux Boulevard, Jurupa Valley, CA 92509.

TABLE 1 – SAMPLING RESULTS SHOWING DETECTION OF COLIFORM BACTERIA

Microbiological Contaminant	Highest Percentage of Detections (in a month)	No. of Months in Violation	MCL	PHG (MCLG)	Typical Source of Bacteria
Total Coliform Bacteria	6.1%	0	TT	N/A	Naturally present in the environment

TABLE 2 – DETECTION OF INORGANIC CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD

Chemical or Constituent	Units	Average Level Detected	Range of Detection	MCL or MRDL	PHG (MCLG or MRDLG)	Typical Source of Contaminant
Aluminum	ppm	0.10	< 0.05 – 0.87	1	0.6	Erosion of natural deposits; residue from some surface water treatment processes
Arsenic	ppb	1.22	<2.0 – 3.7	10	0.004	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Chlorine	ppm	0.96[a]	0.4 – 2.0	4.0	4.0	Drinking water disinfectant added for treatment
Total Chromium	ppb	1.64	<1.0 – 5.2	50	100	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Fluoride[b]	ppm	0.37	0.2 – 0.6	2.0	1	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate as Nitrogen	ppm	6.5	1.9 – 8.4	10	10	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Perchlorate	ppb	<2.0	<2.0 – 2.9	6	1	Discharge from aerospace and other industrial facilities

TABLE 3 – DETECTION OF ORGANIC CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD

Chemical or Constituent	Units	Average Level Detected	Range of Detection	MCL or MRDL	PHG (MCLG or MRDLG)	Typical Source of Contaminant
TTHMs [Total Trihalomethanes]	ppb	20.0[c]	8.3 – 24	80	None established	Byproduct of drinking water disinfection
HAA [Haloacetic Acids]	ppb	3.2[c]	<2.0 – 3.5	60	None established	Byproduct of drinking water disinfection

TABLE 4 – SAMPLING RESULTS FOR RADIOACTIVITY[d]

Chemical or Constituent	Units	Average Level Detected	Range of Detection	MCL	PHG (MCLG)	Typical Source of Contaminant
Alpha Activity, Gross	pCi/L	7.02	2.26 – 8.81	15	0	Erosion of natural deposits
Uranium	pCi/L	3.60	2.19 – 6.85	20	0.43	Erosion of natural deposits

(a) Highest running annual average during 2021.
(b) Fluoride is naturally present in the District's groundwater supply. The District does not add fluoride to your drinking water.
(c) Highest Locational Running Annual Average (LRAA) during 2021.
(d) The most recent samples for gross alpha activity were taken in 2017, 2019, and 2020, and the samples for uranium were taken in 2016, 2017, and 2020.
(e) There are no PHGs, MCLGs, or mandatory standard health effects language for these constituents because Secondary MCLs are set on the basis of aesthetics.
(f) Out of 12 monthly samples taken for manganese in 2021, one sample exceeded the secondary MCL of 50 ppb.
(g) Out of 156 samples taken for turbidity during 2021, 3 samples exceeded the secondary MCL of 5 nephelometric turbidity units (NTU); however, the annual average level detected was below the MCL. Turbidity monitoring is conducted on a weekly basis.
(h) Samples for lead and copper are taken every three years, and the most recent samples were taken in 2020. No schools requested lead sampling from us during 2021.

TABLE 5 – DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD

Chemical or Constituent	Units	Average Level Detected	Range of Detection	MCL	PHG[e] (MCLG)	Typical Source of Contaminant
Chloride	ppm	74	46 – 83	500	None established	Runoff/leaching from natural deposits; seawater influence
Color (color units, CU)	CU	0.1	0.0 – 10.0	15	None established	Naturally-occurring organic materials
Iron	ppb	259	<100 - 2200	300	None established	Leaching from natural deposits; industrial wastes
Manganese	ppb	<20	<20 – 59[f]	50	None established	Leaching from natural deposits
pH	pH Units	7.9	7.8 – 8.0	None established		Erosion of natural deposits
Specific Conductance	µS/cm	781	750 – 820	1600	None established	Substances that form ions when in water; seawater influence
Sulfate	ppm	82	77 – 88	500	None established	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids	ppm	496	480 – 550	1000	None established	Runoff/leaching from natural deposits
Turbidity	NTU	0.67	<0.1 – 15[g]	5	None established	Soil runoff

TABLE 6 – SAMPLING RESULTS[h] FOR LEAD[i] AND COPPER

Chemical or Constituent and Reporting Units	No. of Samples Collected	90th Percentile Level Detected	Action Level (AL)	No. of Sites Exceeding AL	PHG (MCLG)	Typical Source of Contaminant
Copper (ppm)	31	0.47	1.3	0	0.3	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)[i]	31	<5	15	0	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

TABLE 7 – SAMPLING RESULTS FOR UNREGULATED CONTAMINANTS

Chemical or Constituent	Units	Average Level Detected	Range of Detection	MCL or NL	PHG (MCLG)	Typical Source of Contaminant
Sodium	ppm	45	39 – 74	None established		Erosion of natural deposits
Hardness	ppm	206[j]	220 – 340	None established		Erosion of natural deposits
PFOA[k]	ppt	2.56	<1.7 – 15.0	NL=5.1	None established	Firefighting foams, nonstick coatings, industrial facilities
PFOS[k]	ppt	2.23	<1.7 – 19.0	NL=6.5	None established	Firefighting foams, nonstick coatings, industrial facilities
PFBS[k]	ppt	6.75	<1.7 – 36.0	NL=500	None established	Firefighting foams, nonstick coatings, industrial facilities
PFHpA[k]	ppt	1.15	<1.7 – 7.2	None established		Firefighting foams, nonstick coatings, industrial facilities
PFHxS[k]	ppt	2.99	<1.7 – 19.0	None established		Firefighting foams, nonstick coatings, industrial facilities
PFHxA[k]	ppt	12.06	<1.7 – 19.0	None established		Firefighting foams, nonstick coatings, industrial facilities

(i) 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. Rubidoux Community Services 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 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 exposure is available from the Safe Drinking Water Hotline (800-426-4791) or at http://www.epa.gov/lead.
(j) Equivalent to approximately 12 grains per gallon.
(k) PFOA is perfluorooctanoic acid. PFOS is perfluorooctanesulfonic acid. PFBS is perfluorobutanesulfonic acid. PFHpA is perfluorohepatanoic acid. PFHxS is perfluorohexanesulfonic acid. PFHxA is perfluorohexanoic acid. The District has recently installed treatment facilities to reduce levels of PFOA and PFOS to below the NL. All detections of PFOA and PFOS above the NL were prior to commencing operation of the new treatment facilities, which took place in mid-2021. The new treatment facilities were implemented on schedule to meet compliance requirements.