

Russellville Water & Sewer Board

2022 Consumer Confidence Report

(MONITORING PERIOD PERFORMED JANUARY THROUGH DECEMBER 2021)

Este informe Contiene información muy importante sobre su agua beber. Tradúzcalo ó hable con alguien que lo entienda bien.

Russellville Water & Sewer Board is pleased to share this year's Annual Consumer Confidence Report (CCR). It describes to you, our customer, the quality of your drinking water that's being delivered every day. This report covers the period from January 1, 2020 through December 31, 2021. The Russellville Water & Sewer Board's drinking water supply surpasses the strict regulations of both the Alabama Department of Environmental Management (ADEM) and the U.S. Environmental Protection Agency (USEPA), which require all water suppliers to prepare this report every year. Our goal is to provide you with a safe and dependable supply of drinking water while ensuring the protection of our natural resources.

OVERVIEW

In 2021 we distributed approximately 1.4 billion gallons of water to our residential, commercial and wholesale customers. We wholesale water to the Franklin County Water Authority Water System and the West Lawrence Water System.

The Russellville Water & Sewer Boards drinking water sources are provided by both groundwater and surface water. Our groundwater well is located off Highway 624 West and Lawrence Street. This well draws water from the Bangor Formation Aquifer. We have two (2) surface water sources. Our primary surface water source draws water from Lake Elliott, a 200-acre reservoir also located just off Highway 624 West. Our backup surface water source is located at the Cedar Creek reservoir located north of Highway 24 West.

We treat our surface water using Disinfection, Coagulation, Sedimentation and Filtration to remove and reduce potential contaminants that may be found in our source waters. Ground water was treated by Disinfection and Pressure Sand Filtration Process during 2020. All water was treated with fluoride for dental protection. The Russellville Water and Sewer Board has a Well Head Protection Plan for your groundwater source. A Source Water Assessment Plan is also maintained for each source being utilized.

The Fourth Unregulated Contaminant Monitoring Rule (UCMR 4) was published in the Federal Register on December 20, 2016. UCMR 4 requires monitoring for 30 chemical contaminants between 2018 and 2020 using analytical methods developed by EPA and consensus organizations. Russellville Water and Sewer Board collected two (2) rounds of samples from their well source during 2020 to check for PFAS. None were detected. This monitoring provides the basis for future regulatory actions to protect our public health.

We regularly provide a monthly Bacteriological Sampling and maintain an active Back-flow Prevention Plan. Our Drought Contingency Plan is available at the Water Office for review upon request. We use the ADEM Laboratory System- Central Lab and Pace Analytical to perform testing of our drinking water.

IS OUR DRINKING WATER SAFE?

The Russellville Water and Sewer Board routinely monitors for substances in our drinking water according to Federal and State laws. We're proud that the drinking water we provide to our customers meets or exceeds all Federal and State requirements. **OUR SYSTEM HAS HAD NO DRINKING WATER VIOLATIONS!** We have learned through our monitoring and testing, however, that some substances have been detected. The Environmental Protection Agency (EPA) and Alabama Department of Environmental Management (ADEM) have determined that **YOUR DRINKING WATER IS SAFE** at these levels. A comprehensive list of these detected items is shown in the Tables in this Report.

WHAT DO THESE TABLES MEAN?

It's easy! The **Table of Primary Contaminants** provides an overview of some primary contaminants that are known to pose a health risk to humans. In the **Table of Detected Contaminants**, the column labeled Amount Detected shows the highest test results during the year. The column labeled "Sources of Contaminant Level" shows where each substance usually originates. The **Table of Secondary Contaminants** lists regulated contaminants that may cause cosmetic or aesthetic effects in drinking water.

DEFINITIONS

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

Maximum Contaminant Level or MCL: The highest level of a contaminant that is allowed in drinking water. The MCL have been set as close to the MCLG as feasible using the best available technology.

Maximum Contaminant Level Goal or MCLG: The level of a contaminant in drinking water, which there is no known or expected risk to health. The MCLG allows for a margin of safety.

Maximum Residual Disinfectant Level Goal or 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.

Maximum Residual Disinfectant Level or 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.

Treatment Technique: A required treatment process, procedure, or activity necessary to provide deliverance of safe drinking water.

Key to Tables

AL	=	Action Level	pci/l	=	Picocuries per liter (a measure of radioactivity)
MCL	=	Maximum Contaminant Level	ppm	=	parts per million, milligrams per liter (mg/l)
MCLG	=	Maximum Contaminant Level Goal	ppb	=	parts per billion, micrograms per liter (ug/l)
NTU	=	Nephelometric Turbidity Units	T T	=	Treatment Technique
ND	=	Not Detected			

Table of Primary Drinking Water Contaminants

Sample Period 1/01/2021 - 12/31/2021

At high levels primary contaminants are known to pose a health risks to humans. This table provides a quick glance of any primary contaminant detections.

CONTAMINANT	MCL	AMOUNT DETECTED	CONTAMINANT	MCL	AMOUNT DETECTED
Bacteriological (Units)			Endothall (ppb)	100	ND
Total Coliform Bacteria	< 5%	0	Endrin (ppb)	2	ND
Turbidity (NTU)	T T	.09	Epichlorohydrin	TT	ND
Fecal Coliform and E.coli	0	0	Glyphosate (ppb)	700	ND
Radiological (Units)			Heptachlor (ppt)	400	ND
Beta/photon emitters (mrem/yr)	4	ND	Heptachlor epoxide (ppt)	200	ND
Alpha emitters (pci/l)	15	ND	Hexachlorobenzene (ppb)	1	ND
Combined radium (pci/l)	5	ND	Hexachloropentadiene (ppm)	1	ND
Uranium (pci/l)	30	ND	Lindane (ppt)	200	ND
Inorganic (Units)			Methoxychlor (ppb)	40	ND
Antimony (ppb)	6	ND	Oxamyl [Vydate] (ppb)	200	ND
Arsenic (ppb)	10	ND	PCBs (ppt)	500	ND
Asbestos (MFL)	7	ND	Pentachlorophenol (ppb)	1	ND
Barium (ppm)	2	ND	Picloram (ppb)	500	ND
Beryllium (ppb)	4	ND	Simazine (ppb)	4	ND
Cadmium (ppb)	5	ND	Toxaphene (ppb)	3	ND
Chromium (ppb)	100	1.95	Benzene (ppb)	5	ND
Copper (ppm)	AL=1.3	69	Carbon Tetrachloride (ppb)	5	ND
Cyanide (ppm)	200	ND	Chlorobenzene (ppb)	100	ND
Fluoride (ppm)	4	0.685	Dibromochloropropane (ppt)	200	ND

Lead (ppb)	AL=15	1.29	o-Dichlorobenzene (ppb)	600	ND
Mercury (ppb)	2	ND	p-Dichlorobenzene (ppb)	75	ND
Nitrate (ppm)	10	0.458	1,2-Dichloroethane (ppb)	5	ND
Nitrite (ppm)	1	ND	1,1-Dichloroethylene (ppb)	7	ND
Selenium (ppm)	50	ND	Cis-1,2-Dichloroethylene (ppb)	70	ND
Thallium (ppm)	2	ND	trans-1,2-Dichloroethylene (ppb)	100	ND
Organic Chemicals			Dichloromethane (ppb)	5	ND
2,4-D (ppb)	70	ND	1,2-Dichloropropane (ppb)	5	ND
2,4,5-TP (Silvex) (ppb)	50	ND	Ethylbenzene (ppb)	700	ND
Acrylamide	T T	ND	Ethylene dibromide (ppt)	50	ND
Alachlor (ppb)	2	ND	Styrene (ppb)	100	ND
Atrazine (ppb)	3	ND	Tetrachloroethylene (ppb)	5	ND
Benzo(a)pyrene[PHAs] (ppt)	200	ND	1,2,4-Trichlorobenzene (ppb)	70	ND
Carbofuran (ppb)	40	ND	1,1,1-Trichloroethane (ppb)	200	ND
Chlordane (ppb)	2	ND	1,1,2-Trichloroethane (ppb)	5	ND
Dalapon (ppb)	200	ND	Trichloroethylene (ppb)	5	ND
Di-(2-ethylhexyl)adipate (ppb)	400	ND	TTHM (ppb)	80	6.5
Di(2-	6	ND	Toluene (ppb)	1	ND
Dinoseb (ppb)	7	ND	Vinyl Chloride (ppb)	2	ND
Diquat (ppb)	20	ND	Xylenes (ppm)	10	ND
Dioxin[2,3,7,8-TCDD]	30	ND	TOC	T T	1.3
Chloramines (ppm)	4	ND	Chlorine (ppm)	4	2.20
Chlorite (ppm)	1	ND	Chlorine Dioxide (ppb)	800	ND
HAA5 (ppb)	60	48.0	Bromate (ppb)	10	ND

Table of Detected Contaminants

Sample Period 1/01/2021 - 12/31/2021

CONTAMINANT	MCLG	MCL	Range	Violation	Amount Detected (Units)	Likely Source of Contamination
Bacteriological (Units)						
① Turbidity (NTU)	N/A	T T	0.02 - .08	NO	0.06 NTU	Soil runoff
Total Organic Carbon (TOC)	N/A	T T	0.85 - 1.3	NO	1.3 ppm	Naturally present in the environment
Organic Chemicals						
Copper	1.3	AL=1.3	0.0 - .069	NO	.069 ppm	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Fluoride	4	4	.00 - .80	NO	0.686 ppm	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Lead	0	AL=15	0.0 - .001	NO	0.00129 ppm	Corrosion of household plumbing systems, erosion of natural deposits

Nitrate	10	10	0.226-0.458	NO	0.458 ppm	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Volatile Organic Chemicals (By Products of Disinfection)						
² Chlorine	4.0	4	0.44 - 2.2	NO	2.2 ppm	Disinfectant
³ HAA5	40	60	20.0 - 48.0	NO	48.0 ppb	By-product of drinking water chlorination
⁵ TOC	NA	TT	0.85 - 1.3	NO	1.3 ppm	Naturally present in the environment
² TTHM	60	80	14.0 - 65.0	NO	65.0 ppb	By-product of drinking water chlorination

Table of Secondary Contaminants

Contaminant	MCL	Units	Amount Detected
Alkalinity, Total(CA CO3)	NA	ppm	110
Aluminum	0.20	ppm	ND
Bromodichloromethane	NA	ppm	0.058
Calcium	NA	ppm	45.6
Carbon Dioxide	NA	ppm	2.9
Chloride	250	ppm	6.74
Chloroform	NA	ppm	0.052
Color	15.0	Units	ND
Dibromochloromethane	0.50	ppm	ND
Hardness	NA	ppm	121
Iron	0.30	ppm	ND
Magnesium	NA	ppm	1.81
Manganese	0.05	ppm	ND
Contaminant	MCL	Units	Amount Detected
pH	NA	ppm	7.8
Silver	0.1	ppm	ND
Sodium, as Na	NA	ppm	0.772
Sulfate	250	ppm	1.48
Total Dissolved Solids	500	ppm	142
Zinc	5.0	ppm	0.259

CRYPTOSPORIDIUM AND GIARDIA

The Russellville Water System also tests their source water for pathogens, such as Cryptosporidium and Giardia. The pathogens can enter the water from animal or human waste. All test results were well within state and federal standards. For people who may be immunocompromised, a guidance document developed jointly by the Environmental Protection Agency and the Center for Disease Control is available online at www.epa.gov/safewater/crypto.html or from the Safe Drinking

Water Hotline or 800-426-4791. This language does not indicate the presence of cryptosporidium in our drinking water. Based on a study conducted by ADEM with the approval of the EPA a statewide waiver for the monitoring of asbestos and dioxin was issued. Thus, monitoring for these contaminants was not required.

REDUCED MONITORING FOR DISINFECTION BYPRODUCTS (DPB)

During past years, the Russellville Water & Sewer Board was required to collect samples at various locations throughout the distribution system to test for Trihalo-Methane (TTHM) and Haloacetic Acid (HAA5) levels in the drinking water. Due to the low levels detected, the Alabama Department of Environmental Management (ADEM) reduced the amount of required samples that Russellville has to collect due to its exceptional water quality.

All sample results are within the acceptable range required.

SOURCE WATER ASSESSMENTS

The Alabama Rural Water association (ARWA), Alabama Department of Environmental Management (ADEM), along with geologist have worked together to form a Source Water Assessment Plan (SWAP) for our Finished Water Well Supply; Lake Elliott and Cedar Creek Reservoirs. This Plan is an effort to conserve and protect your water source. Our final approval for the Source Water Assessment (SWA) determined our source to have an overall low ranking for susceptibility of contamination. Please help us make these efforts worthwhile by protecting our Source Water. Carefully follow instructions on pesticides and herbicides you use for lawn and garden. Also, properly dispose of household chemicals, paints and waste oil. The Source Water Assessment Plan (SWAP) has recently been updated during 2021. Customers are encouraged to view the SWAP in its entirety at the Russellville Utilities Office located at 721 Jackson Avenue South.

GROUND WATER RULE

The United States Environmental Protection Agency (USEPA) requires all water systems that utilize a finished water wells for drinking water submit a Ground Water Monitoring Plan. Based on the City of Russellville's Plan, our ground water source meets the requirements for 4-Log inactivation of viruses.

REQUIRED ADDITIONAL HEALTH INFORMATION

To ensure that tap water is safe to drink, EPA prescribes limits on the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water, but the FDA does not approve bottled water manufacturers or distributors. 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.

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 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:

- (A) Microbiological contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- (B) Inorganic contaminants, such as salts and metals, which can be natural occurring or result from urban storm runoff, industrial or domestic wastewater discharges, oil and gas

production, mining, or farming.

(C) Pesticides and herbicides, which may come from a variety of sources such as agricultural, storm water runoff, and residential uses.

(D) Organic chemical contaminants, including synthetic and volatile organics, which are by-products of industrial processes and petroleum production. It may also be found from gas stations, urban storm water runoff and septic systems.

(E) 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, EPA prescribes regulations, which limit the amount of certain contaminants in water provided by public water systems.

Some people may be more vulnerable to contaminants in drinking water than is 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. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium*, *Giardia* or other contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

INFORMATION ABOUT LEAD

Lead in drinking water is rarely found in source water but is primarily from materials and components associated with service lines and home plumbing. Your water system is responsible for providing high quality drinking water; however, we cannot control the variety of materials used in plumbing components. If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Use only water from the cold-water tap for drinking, cooking, and especially for making baby formula. Hot water is more likely to cause leaching of lead from plumbing materials. 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. These recommended actions are very important to the health of your family.

Lead levels in your drinking water are likely to be higher if:

- Your home or water system has lead pipes, or
- Your home has faucets or fittings made of brass which contains some lead, or
- Your home has copper pipes with lead solder and you have naturally soft water, and
- Water often sits in the pipes for several hours.

EPA and ADEM requires Russellville to collect and analyze Lead/Copper samples every three years from homes representative of its water service area. These samples were collected during 2019. The Lead/Copper results were all within an acceptable range. The next Lead /Copper sampling period will be collected in 2022.

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.

NATIONAL PRIMARY DRINKING WATER REGULATION COMPLIANCE

This 2021 Consumer Confidence Report (CCR) was prepared by the Russellville Water and Sewer Board using technical assistance and guidance from the American Water Works Association (AWWA), the National Rural Water Association (NRWA), United States Environmental Protection Agency (USEPA), and the Alabama Department of Environmental Management (ADEM).

Russellville Water and Sewer Board Members

Dan Terry	Chairman
Richard Tutich	Vice-Chairman
Tim Smith	Secretary
Joe Graham	Board Member
Harold Mitchell	Board Member

If you have any questions regarding this report or any questions concerning your water, please contact Eric Hill, Manager of the Russellville Water Works and Sewer Board, by calling (256) 332-3850. Our Board meetings are held on the second Tuesday of each month at 10:00 a.m. at 721 Jackson Ave. S., Russellville, Alabama.

Learn more about the Russellville Water and Sewer Board at www.russellvilleutilities.com