ANDERSON REGIONAL
JOINT WATER SYSTEM

Anderson, SC PWSID #SC0420011
2021 Annual Water Quality Report
Developed March, 2022

Anderson Regional Joint Water System, Hartwell Lake Filter Plant is committed to providing residents with a safe and reliable supply of high-quality drinking water. We test the water using sophisticated equipment and advanced procedures. Your water meets state and federal standards for both appearance and safety. This annual "Consumer Confidence Report," required by the Safe Drinking Water Act (SDWA), tells you where your water comes from, what our tests reveal about it, and conveys other important details that you should know about your drinking water.

Anderson Regional Joint Water System, Hartwell Lake Filter Plant's drinking water meets or surpasses all federal and state drinking water standards.

Water Source

The Joint System is supplied by surface water from the U.S. Army Corps of Engineers' Hartwell Lake Reservoir, lying along the border of Upstate South Carolina and Georgia. The plant operates 24 hours per day, every day of the year. During 2021, the plant treated 7.2 billion gallons of water. The plant is operated by highly trained, state certified operators.

An Explanation of the Water-Quality Data Table

The table shows the results of our water-quality analyses. This report is based upon tests conducted in the year 2021 by the Joint System's Hartwell Lake Filter Plant. In addition to continuous monitoring of some water quality parameters, the operators perform over 200 laboratory tests daily. The data presented in this report is from the most recent testing done in accordance with State and Federal regulations. Every regulated contaminant that we detected in the water, even in the smallest traces, is listed here. The table contains the name of each substance, the highest level allowed by regulation (MCL), the ideal goals for public health, the amount detected, the usual sources of such contamination, footnotes explaining our findings, and a key to units of measurement.

Terms used in the Water-Quality Table and in other parts of this report are defined below.

Maximum Contaminant Level or (MCL): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

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

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.

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.

Maximum Residual Disinfectant Level Goal or (MRDLG): The level of a drinking water disinfectant below which there is not known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.

Total Organic Carbon (TOC): The measure of the total amount of organic matter within a water solution. For drinking water purposes, it is an indicator of overall water quality prior to and after treatment.

Key To Table	
AL = Action Level	NTU = Nephelometric Turbidity Units
BDL = Below Detectible Level	pci/l = picocuries per liter (a measure of radioactivity)
MCL = Maximum Contaminant Level	ppm - parts per million, or milligrams per liter (mg/L) (this compares to one penny in $10,000)
MCLG = Maximum Contaminant Level Goal	ppb - parts per billion, or micrograms per liter (µg/L) (this compares to one penny in $10,000,000)
MFL = Million Fibers per Liter	ppt = parts per trillion, or nanograms per liter
mrem/year = millirems per year-- (a measure of radiation absorbed by the body)	ND = Non-detectable
MRDL = Maximum Residual Disinfectant Level	RAA = Running Annual Average
MRDLG = Maximum Residual Disinfectant Level Goal	TT = Treatment Technique

SECONDARY STANDARDS/OPERATIONS DATA: These tests indicate results that may affect the appearance, odor, and taste in the drinking water. Parameters of pH, alkalinity, chlorine, hardness, and fluoride are all monitored routinely at the filter plant. These data represent the annual average of those parameters. Iron, manganese, sodium, and sulfate were collected as grab samples and analyzed by a third-party lab separately.

Constituent	Annual Average	MCL
pH	7.13	6.5 – 8.5
Alkalinity	13.22 mg/L	N/A
Chlorine	1.69 mg/L	4.0 mg/L, MRDL
Hardness	14.78 mg/L	N/A
Iron	BDL	0.30 mg/L
Manganese	0.009 mg/L	0.05 mg/L
Sodium	5.8 mg/L	N/A
Sulfate	10.8 mg/L	250 mg/L
Fluoride	0.59 mg/L	4.0 mg/L

SOURCE WATER ASSESSMENT AND PROTECTION PLANS

Source Water Assessment and Protection Plans (SWAP) were completed for all public water systems in South Carolina in May, 2003. SWAPs identify potential sources of contamination to drinking water supplies. The SC Department of Health and Environmental Control completed the plans for all SC public water systems. A copy of this assessment report can be obtained by contacting the Bureau of Water in Columbia, South Carolina at 1-(803)-898-4300.

Compliance Sampling Results

Contaminant	Date Tested	Unit	MCL	MCLG	Results	Range	Major Sources	Violation
Microbiological Contaminants								
Total Coliform	2021	0	0	0	0		Coliforms are bacteria that are naturally present in the environment & are used as an indicator that other potentially-harmful bacteria may be present. If coliforms were found in more samples than allowed, this was a warning of potential problems.	NO
E. coli	2021	0	0	0	0		Fecal coliforms & E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, and people with severely-compromised immune systems.	NO
Turbidity								
Highest single measurement	2021	NTU	Treatment Technique, 1 NTU	N/A	0.05	0.05	Soil Runoff. Turbidity is a measurement of the cloudiness of the water caused by suspended particles.	NO
Lowest monthly % meeting limit	2021	NTU	Treatment Technique, 0.3 NTU	N/A	100%	100%	Soil Runoff. Turbidity is a measurement of the cloudiness of the water caused by suspended particles.	NO
Inorganic Contaminants								
Lead	2019**	ppb	AL=15	0	90^{TH}%= 0.000	ND	Corrosion of household plumbing Erosion of natural deposits	NO
Copper	2019	ppm	AL=1.3	1.3	90^{TH}%= 0.026	0.006-0.027	Corrosion of household plumbing Erosion of natural deposits	NO
Chlorine	2021	ppm	MRDL = 4	MRDLG = 4	2.00	2.00	Water additive used to control microbes	NO
Fluoride	2021	ppm	4	4	0.47	0.47	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories	NO
Nitrate	2021	ppm	10	10	0.15	0.15	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits	NO
Volatile Organic Contaminants								
TTHMs (Total Trihalomethanes)	2021	ppb	80	N/A	14	12-13.6	By-product of drinking water chlorination	NO
HAA (Haloacetic Acids)	2021	ppb	60	N/A	11	10.2-10.5	By-product of drinking water chlorination	NO
Synthetic Organic Contaminants								
Pentachlorophenol	2021	ppb	1	0	0.015	0.015	Discharge from wood preserving factories	NO

Table of Detected Contaminants Footnote

The above table shows only the contaminants that had detections. ARJWS had no violations. In summary, we are pleased to report that your drinking water meets or exceeds all Federal and State requirements.

****Lead in Drinking Water:** If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. For 2019, Anderson Regional Joint Water System had no sites tested exceed the action level. ARJWS is on reduced monitoring for lead and copper. Its next monitoring event will be in 2022. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Anderson Regional Joint Water System 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 1-800-426-4791 or at ***http://www.epa.gov/safewater/lead***.

During 2021, we were monitored for *PCBs/Toxaphene. No detections were noted.

* ***Polychlorinated biphenyls (PCBs)*** **are man-made chemicals that belong to a family of chemicals known as chlorinated hydrocarbons. PCBs were manufactured in the U.S. from 1929 until 1979, when their manufacture was banned due to concerns about their persistence, bioaccumulation, and potential for adverse effects on human health and the environment. Because PCBs are chemically stable with a high boiling point, and non-flammable with excellent electrical insulating properties, PCBs were used in hundreds of industrial and commercial applications including electrical, heat transfer and hydraulic equipment; as plasticizers in paints, plastics and rubber products (including caulk) and in many other industrial applications.**

Toxaphene**, a synthetic organic chemical, is an amber, waxy organic solid with a piney odor. It was used as an insecticide for cotton and vegetables, and on livestock and poultry. In 1982, most of its uses were banned and in 1990, all uses were banned in the United States. EPA regulates toxaphene in drinking water to protect public health. Toxaphene may cause health problems if present in public or private water supplies in amounts greater than the drinking water standard set by EPA.**

Total Organic Carbon (TOC) Removal

Analysis	Sample Frequency	Unit	MCL	Results*	Average Source TOC	Source TOC Range	Major Sources	Violation
Total Organic Carbon (TOC)	Monthly	ppm	35% Removal or Alternative Criteria	35% removal and Alternative Criteria 1 and 2	1.65 mg/L	1.42 - 1.96 mg/L	Naturally present in the environment	NO

*For source water TOC level of >2.0 mg/L and alkalinity between 0 – 60 ppm, 35% TOC removal is required **or** the Alternative Criteria as specified in R 61-58.13F
For source water TOC level of <2.0 mg/L, Alternative Criteria 1 is used.
For finished water TOC < 2.0 mg/L, Alternative Criteria 2 is used.
The Lake Hartwell Filter Plant routinely meets Alternative Criteria 2 and typically meets Alternative Criteria 1.

Compliance Monitoring Regulation 2021

ARJWS Water Treatment Plant was monitored for compliance sampling in 2021. No concerning detections were noted. If you have any questions regarding this list, please contact: Chris Weber, the Operations Manager, at 1-(864)-332-6534, or email: cweber@arjwater.com.

The following is a list of contaminants that were tested for, but not detected, in the drinking water:

Arsenic, Cadmium, Chromium, Mercury, Nickel, Selenium, Hexachlorocyclopentadiene, Propachlor, Hexachlorobenzene, Lindane, Heptachlor, Aldrin, Alachlor, Heptachlor Epoxide, Chlordane, Metolachlor, Butachlor, Dieldrin, Endrin, Methoxychlor, Toxaphene, Simazine, Atrazine, Metribuzin, DBCP, EDB, 2,4,5- TP (Silvex), PCP, Methylene Chloride, Di-2-(Ethylhexyl) Adipate, Di-2-(Ethylhexyl) Phthalate, Aldicarbsulfoxide, Aldicarbsulfone, Oxamyl (Vydate), Methomyl, 3-Hydroxycarbofuran, Aldicarb, Carbofuran, Carbaryl(Sevin), Dalapon, Dicamba, 2,4-D, Glyphosate, Dinoseb, Picloram, Benzo(a)Pyrene, p-Isopropyltoluene, Chloromethane, Dichlorodifluoromethane, Bromomethane, Chloroethane, , Hexachlorobutadiene, Naphthalene, 1,2,3- Trichlorobenzene, Cis-1,2-Dichloroethene, Cis-1,3 Dichloropropene, Dibromomethane, Antimony, Diquat, 1,1-Dichloropropene, 1,2-Dichloropropane, 2,2-Dichloropropane, trans-1,3-Dichloropropene, 1,2,3-Trichloropropane, 1,3-Dichloropropane, 1,2,4-Trimethylbenzene, 1,2,4-Trichlorobenzene, n-Butylbenzene, Beryllium, 1,3,5-Trimethylbenzene, Tert-Butylbenzene, Sec-Butylbenzene, Bromochloromethane, Xylenes(total), 2-Chlorotoluene, 4-Chlorotoluene, 1,2-Dichlorobenzene, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, Vinyl Chloride, 1,1-Dichloroethylene, 1,1-Dichloroethane, Trans-1,2-Dichloroethene, 1,2-Dichloroethane, 1,1,1-Trichloroethane, Thallium, Carbon Tetrachloride, Trichloroethylene, 1,1,2-Trichloroethane, Tetrachloroethene, 1,1,1,2- Tetrachloroethane, 1,1,2,2-Tetrachloroethane, Chlorobenzene, Benzene, Toluene, Ethylbenzene, Bromobenzene, Isopropylbenzene, Styrene, MTBE n-Propylbenzene, Barium, Trichlorofluoromethane, BCH-Gamma, M-Dichlorobenzene, O-Dichlorobenzene, P-Dichlorobenzene, and Tetrachloroethylene.

Required Additional Health Information

To ensure that tap water is safe to drink, the Environmental Protection Agency (EPA) prescribes limits on the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Drinking water, including bottled water, may contain small amounts of contaminants. The presence of contaminants, however, does not indicate that water poses a health risk. The MCL's are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at (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, the elderly, and infants can be particularly at risk from infections. Such individuals 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 and other microbial contaminants are available from the Safe Drinking Water Hotline at (1-800-426-4791).

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 picks up naturally-occurring minerals, radioactive material, and substances resulting from animal or human activity.

Contaminants that may be present in source water include:

(A) Microbial 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 naturally-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 agriculture, storm water runoff, and residential uses

(D) Organic chemical contaminants, which are by-products of industrial processes and petroleum production; can also come 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

National Primary Drinking Water Regulation Compliance

It is our pleasure to answer any questions about Anderson Regional Joint Water System, Hartwell Lake Filter Plant, and its water quality. Call the Operations Manager, Chris Weber at 1-864-332-6534 or email at: cweber@arjwater.com.

Water Quality Data for community water systems throughout the United States is available at www.waterdata.com.

We are members of the American Water Works Association (AWWA), the Water Environmental Association of South Carolina (WEASC), and the South Carolina Rural Water Association (SCRWA).

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[] Informe contiene informacion importante sobre la calidad del agua en su comunidad. Traduzcalo o hable con alguien que lo entienda bien.