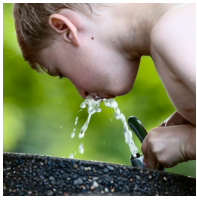
ANNUAL REPORT

2019 (2018 Data)

DRINKING WATER QUALITY

At Jackson Energy Authority, our mission is to provide our customers with the most reliable drinking water supply at the highest quality. We are pleased to report that your drinking water is safe and continues to exceed all government requirements.



Jackson Energy Authority
One thing you can count on.

Water is one of the most important resources available - it makes up about two-thirds of the human body and influences all bodily processes. Without water, people would not survive.

Tap water is such an integral part of life that it is hard to imagine a day without it. And, any measure of a successful society – low mortality rates, economoic diversity, productivity, public safety – is in some way related to access to safe water.

The ability to turn on the tap for a clean, great tasting, refreshing drink of water is an achievement that this community is fortunate to have. Jackson Energy Authority constantly strives to not only protect our water supply, but also provide our customers with the safest, most reliable drinking water supply at the highest quality.

GOT UNUSED, EXPIRED MEDS?

DON'T FLUSH!

Flushing unused or expired medicines can be harmful to your drinking water. Properly disposing of unused or expired medications helps protect you and the environment. Keep medications out of Tennessee's waterways by dropping them off in one of the permanent pharmaceutical take-back bins. There are nearly 100 take-back bins located across the state. To find a convenient location, please visit http://tdeconline.tn.gov/rxtakeback/.

Jackson Energy Authority water is checked regularly and tested thoroughly every day before it arrives at your tap.

THE WATER WE DRINK

To help safeguard our water supply, we work with stringent state and federal standards to protect, treat and deliver the water we drink. Water quality technicians run daily tests on our treated water to determine the vulnerability of our water source to potential contamination.

ABOUT SOURCE WATER

We pump our water from 21 deep wells from the Memphis Sands aquifer (underground water bearing zone). The water follows a process where it is treated, filtered and tested at our two water treatment plants.

SOURCE WATER ASSESSMENT

All states were required by Congress in the 1996 Safe Drinking Water Act Amendments to develop a Source Water Assessment Program for the assessment of the potential contamination of public water system ground water and surface water sources.

The Tennessee Department of Environment & Conservation (TDEC) has assessed the untreated water sources serving water to our system to identify potential contaminants. As part of the Source Water Assessment Program, water sources receive ratings of reasonably susceptible (high), moderately susceptible (moderate) or slightly susceptible (low) based on geologic factors and human activities in the vicinity of the water. The Jackson water system sources rated as reasonably susceptible to potential contamination.

An explanation of Tennessee's Source Water Assessment Program, the Source Water assessment summaries, susceptibility scorings and the overall TDEC report to EPA can be viewed online at: www.tn.gov/environment/program-areas/wr-water-resources/water-quality/source-water-assessment.html, or received upon request by calling 1-888-891-8332. You may also contact JEA to obtain copies of the assessment.

WELLHEAD PROTECTION

Wellhead Protection is a way to prevent drinking water from becoming polluted by managing potential sources of contamination in the area which supplies water to a public well. Much can be done to prevent pollution, such as the wise use of land and chemicals. Public health is protected and expense of treating polluted water or drilling new wells is avoided through wellhead protection efforts. For our Wellhead Protection Plan please call 422-7540 between 7:00am-4:00pm M-F.

DRINKING WATER

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 Environmental Protection Agency's 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 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:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, which 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 which 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, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, 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, EPA and the Tennessee Department of Environment and Conservation prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

POPULATION VULNERABILITY

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. 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 800-426-4791.

LEAD IN DRINKING WATER

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. Jackson Energy Authority is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water in your plumbing has been unused 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 or www.epa.gov/safewater/lead.

TERMS & ABBREVIATIONS USED IN THE REPORT

MCL - Maximum Contaminant Level - The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible, using the best available treatment technology.

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

MRDL - Maximum Residual Disinfectant Level - The highest level of disinfectant allowed in drinking water.

MRDLG - Maximum Residual Disinfectant Level Goal - The level of a drinking water disinfectant below which there is no known or expected risk to health.

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

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

UNITS OF MEASURE

- ppb - parts per billion or micrograms per liter. (One ppb is explained as one penny in $10,000,000.)
- ppm - parts per million or milligrams per liter. (One ppm is explained as one penny in $10,000.)
- Nd - Non-detects, lab analysis indicates constituent is not present.
- MFL - Million fibers per liter, used to measure asbestos concentration.

CROSS CONNECTIONS

Jackson Energy Authority works to prevent cross connections within our water system by following a State approved Cross Connection Control Policy. A cross connection occurs when a non-drinking water source comes in contact with our drinking water system. Every Jackson Energy Authority commercial customer and any residential customer with a swimming pool and/or lawn irrigation system connected directly to the water system must install and maintain a backflow prevention device. This device prevents water from flowing backward and re-entering the main water supply. A backflow prevention brochure is available by calling 731-422-7545.

UNREGULATED MONITORING DATA

Parameter	Range of Level Detected
Chlorate (2013)	23.3-24.1 ppb (avg. 23.7)
Chromium-6 (2013)	0.15-0.32 ppb (avg 0.21)
Chromium total (2013)	0.31-0.34 ppb (avg 0.33)
Strontium (2013)	26-95 ppb (avg 50)
Vanadium (2013)	0.20-0.25 ppb (avg 0.23)
1,4- Dioxane (2013)	0.10 ppb
Manganese (2018)	23.3-24.1 ppb (avg 23.7)
HAA5 (2018)	0.15-0.32 ppb (avg 0.21)
HAA6Br (2018)	0.31-0.34 ppb (avg 0.33)
HAA9 (2018)	26-95 ppb (avg 50)
Bromide (2018)	0.20-0.25 ppb (avg 0.23)

Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. For additional information, call the Safe Drinking Water Hotline at 1-800-426-4791.

2018 WATER QUALITY REPORT SUMMARY

Jackson Energy Authority conducts daily testing and monitoring to ensure that your water meets all quality standards. In the year 2018, we conducted more than 41,000 tests for more than 100 contaminants that could be found in your drinking water. The results of our monitoring are reported in the following charts. While most monitoring was conducted during the period of January 1 to December 31, 2018, certain substances are monitored less than once a year. For these substances, the date of the last sample is on the chart.

	Violation Y/N	Level Detected	Range Detected	Date of Sample
General Characteristics				
Calcium (ppm)			11 - 24 mg/l	2018
Hardness (ppm)			28 - 66 mg/l	2018
Alkalinity (ppm)			25 - 41 mg/l	2018

By comparing the columns in the charts, specifically the level detected with the MCLG and MCL, you can see that Jackson's drinking water is safe. Any detected level is well below the state and federal maximum for contaminants.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (i.e. people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice/CCR in a public place or distributing copies by hand or mail.

If you have any questions or require any additional information on this matter please call 731-422-7545.

	Violation Y/N	Level Detected	Range Detected	Date of Sample
Unregulated Contaminants				
Chlorodibromomethane (ppb)	N	0.683 avg.	Nd - 1.000	2018
Methyl-tert-Butylether (ppb)	N	2.383 avg.	Nd - 4.100	2018
Chloroform (ppb)	N	0.633 avg.	Nd - 2.000	2018
Bromodichloromethane (ppb)	N	0.633 avg.	Nd - 1.000	2018
Bromoform (ppb)	N	<0.500 avg.	Nd	2018
Benzene (ppb)	N	1.308 avg.	Nd - 2.600	2018
Tetrachloroethylene (ppb)	N	0.525 avg.	Nd - 0.700	2018

Contaminants	Violation Y/N	Level Detected	Range Detected	Date of Sample	MCLG	MCL	Likely Source of Contamination
Inorganic Contaminants							
Fluoride (ppm)	N	0.70 avg.	0.51-0.86	2018	4	4	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer & aluminum factories.
Nitrate (ppm)	N	2.16	1.12-2.16	2018	10	10	Runoff from fertilizer use; leaching from septic sewage; erosion of natural deposits.
Lead (ppm) 0 out of 30 house-holds exceeded the action level	N	90th% = 0.00148		2016	0	AL=0.015	Corrosion of home plumbing systems; erosion of natural deposits.
Copper (ppm) 0 Sample sites exceeded the action level	N	90th% =0.0649		2016	1.3	AL=1.3	Corrosion of home plumbing systems; erosion of natural deposits; leaching from wood preservatives.
Sodium (ppm)	N	7.18 Avg.	4.65-9.71	2017	N/A	N/A	Erosion of natural deposits; used in water treatment.
Chlorine (ppm)	N	1.41	1.13-1.65	2018	MRDLG = 4	MRDL = 4	Water additive used to control microbes.
Asbestos	N	<0.200 MFL		2017	7	7	Decay of asbestos cement water mains; erosion of natural deposits.
Regulated Contaminants							
Fecal Coliform and E. Coli	N	0		2018	0	0	
Total Coilform Bacteria (% positive samples)	N	Highest mo. = 2% Ann. Avg. = 0.166%		2018	0	5%	Naturally present in the environment; used as an indicator that other harmful bacteria may be present.
Turbidity (NTU) *SEE FOOTNOTE BELOW	N	0.36 Highest	0.02-0.36	2018	N/A	TT	Soil runoff, no health effects but can interfere with disinfection and may indicate the presence of disease-causing organisms.
Volatile Organic Contaminants							
TTHM [Total Trihalomethanes] (ppm)	N	13.29 LRAA	5.5-19.7	2018	N/A	40	By-product of drinking water chlorination.
Haloacetic Acids (ppm)	N	7.47 LRAA	0.9-2.5	2018	N/A	30	By-product of drinking water chlorination.

*FOOTNOTE ON TURBIDITY: Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. We met the treatment technique for turbidity with a lowest monthly percentage of 84% below the turbidity limit of 0.3 NTU. 100% of samples were below 1.0 NTU.

For more information, attend Jackson Energy Authority Board Meetings at 10am on the fourth Thursday of each month at The Tennergy Center, 250 North Highland Ave. Unregulated contaminant monitoring data is available for review.

If you would like to speak with someone about this report or a copy mailed to your home, please call Jennifer Ferrell at (731) 422-7545. Additional paper copies are available at our Customer Center locations: 351 Dr. Martin Luther King Jr. Drive or 2030 Pleasant Plains Extended. Jackson Energy Authority is an equal opportunity employer.

QUESTIONS? PLEASE CALL OUR WATER QUALITY LAB AT 731-422-7545 OR VISIT WWW.JAXENERGY.COM/JEACCR.

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