# 2019 Annual Water Quality Report
## (Testing Performed January through December 2018)


**THE WATER WORKS AND SEWER BOARD OF THE CITY OF ALICEVILLE**
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We are pleased to present to you this year's Annual Water Quality Report. This report is designed to inform you about the quality water and services we deliver to you every day. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water.

| | |
|---|---|
| **Water Sources** | Five groundwater wells producing from the Eutaw and Gordo aquifers |
| **Number of Customers** | Approximately 1040 |
| **Water Treatment** | Chlorination, fluoridation, and pH adjustment |
| **Storage Capacity** | Four storage tanks with a total capacity of 2.5 million gallons |
| **Distribution System** | Approximately 37.5 miles of water mains |
| **Additional Connections** | Sell water to Pickens County Water System and Aliceville Federal Prison |
| **Board Members** | Bobby Ingram, Chairman |
| | Charles Davis, Secretary |
| | Mayor Marva Gipson, Member |
| | Terrance Windham, Member |
| | Jean Mcbide, Member |

### Source Water Assessment

In compliance with the Alabama Department of Environmental Management (ADEM), **The Water Works and Sewer Board of the City of Aliceville** has completed a Source Water Assessment plan that will assist in protecting our water sources. This plan provides additional information such as potential sources of contamination. It includes a susceptibility analysis, which classifies potential contaminants as high, moderate, or low (non-susceptible) to contaminating the water source. There were 86 potential contaminants identified within our assessment areas, and all were ranked low except for 5, which were medium. The report has been completed and approved by ADEM. A copy of the report is available in our office for review, or you may purchase a copy upon request for a nominal reproduction fee.

As you can see, we have put a great deal of effort into protecting our water supply. You can help us protect our water resources by disposing of waste in the proper manner. Carefully follow instructions on pesticides and herbicides you use for your lawn and garden, and properly dispose of household chemicals, paints and waste oil. Please help us make this effort worthwhile by doing your part in protecting our water resources.

### Monitoring Schedule

**The Water Works and Sewer Board of the City of Aliceville** *routinely* monitors for constituents in your drinking water according to Federal and State laws. This report contains results from the most recent monitoring which was performed in accordance with the regulatory schedule.

| Constituent Monitored | Date Monitored |
|---|---|
| Inorganic Contaminants | 2018 |
| Lead/Copper | 2017 |
| Microbiological Contaminants | current |
| Nitrates | 2018 |
| Radioactive Contaminants | 2013 |
| Synthetic Organic Contaminants (including pesticides and herbicides) | Partial 2018 |
| Volatile Organic Contaminants | 2018 |
| Disinfection By-products | 2018 |

## General Information

All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. MCL's, defined in a List of Definitions in this report, 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.

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 it 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, 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 run-off, 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, storm water run-off, 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 prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water.

Some people may be more vulnerable to contaminants in drinking water than the general population. People who are immuno-compromised such as cancer patients undergoing chemotherapy, organ transplant recipients, HIV/AIDS positive or other immune system disorders, some elderly, and infants can be particularly at risk from infections. People at risk 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 microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

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.

## Information about Lead

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. Your 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.

Use *only* water from the cold-water tap for drinking, cooking, and especially for making baby formula. Hot water is likely to contain higher levels of lead. The two actions recommended above are very important to the health of your family. They will probably be effective in reducing lead levels because most of the lead in household water usually comes from the plumbing in your house, not from the local water supply. 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.

## Questions?

If you have any questions about this report or concerning your water utility, please contact **Brian Pearson.** 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 third Friday of each month at 8:30 a.m. at the Waterworks office, 311 3rd Avenue N.W.**

More information about contaminants to drinking water and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at (1-800-426-4791).

We have learned through our monitoring and testing that some constituents have been detected. We are pleased to report that our drinking water has no violations and meets or exceeds federal and state requirements.

| TABLE OF DETECTED DRINKING WATER CONTAMINANTS* | | | | | | |
|---|---|---|---|---|---|---|
| Contaminants | Violation Y/N | Level Detected | Unit Msmt | MCLG | MCL | Likely Source of Contamination |
| Alpha emitters | NO | 2.9 ± 1.0 | PCi/l | 0 | 15 | Erosion of natural deposits |
| Copper | NO | 0.270 * 0 > AL | ppm | 1.3 | AL=1.3 | Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives |
| Fluoride | NO | 0.76 | ppm | 4 | 4 | Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories |
| TTHM [Total trihalomethanes] | NO | 1.80-5.80 | ppb | 0 | 80 | By-product of drinking water chlorination |
| HAA5 [Total haloacetic acids] | NO | 15.7-16.3 | ppb | 0 | 60 | By-product of drinking water chlorination |
| **Secondary Contaminants** | | | | | | |
| Chloride | NO | 5.64 | ppm | n/a | 250 | Naturally occurring in the environment or as a result of industrial discharge or agricultural runoff |
| Hardness | NO | 29.3 | ppm | n/a | | Naturally occurring in the environment or as a result of treatment with water additives |
| Iron | NO | 0.23 | ppm | n/a | 0.30 | Naturally occurring in the environment; erosion of natural deposits; leaching from pipes |
| Manganese | NO | 0.08 | ppm | n/a | 0.05 | Erosion of natural deposits; leaching from pipes |
| pH | NO | 7.81 | S.U. | n/a | n/a | Naturally occurring in the environment or as a result of treatment with water additives |
| Sodium | NO | 22.7 | ppm | n/a | n/a | Naturally occurring in the environment |
| Sulfate | NO | 1.63 | ppm | n/a | 250 | Naturally occurring in the environment or as a result of industrial discharge or agricultural runoff |
| Total Dissolved Solids | NO | 108 | ppm | n/a | 500 | Naturally occurring in the environment or as a result of industrial discharge or agricultural runoff |

* Figure shown is 90th percentile and # of sites above action level (1.3 ppm) = 0

**DEFINITIONS**

Action Level - the concentration of a contaminant that, if exceeded, triggers treatment or other requirements which a **water** system must follow.
Coliform Absent (ca) - Laboratory analysis indicates that the contaminant is not present.
Disinfection byproducts (DBPs)– are formed when disinfectants used in water treatment plants react with bromide and/or natural organic matter (i.e., decaying vegetation) present in the source water. Different disinfectants produce different types or amounts of disinfection byproducts. Disinfection byproducts for which regulations have been established include trihalomethanes (TTHM), haloacetic acids (HAA5), bromate, and chlorite. Some people drinking water containing DBPs in excess of the MCL over many years may experience problems with their liver, kidney, or central nervous system, and may have an increased risk of getting cancer.
Initial Distribution System Evaluation (IDSE) - a one-time study conducted by water systems to identify distribution system locations with high concentrations of trihalomethanes (THMs) and haloacetic acids (HAAs). Water systems will use results from the IDSE, in conjunction with their Stage 1 DBPR compliance monitoring data, to select compliance monitoring locations for the Stage 2 DBPR.
Maximum Contaminant Level - (mandatory language) The Maximum Allowed (MCL) is 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 - (mandatory language) The Goal (MCLG) is 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.
Millirems per year (mrem/yr) - measure of radiation absorbed by the body.
Nephelometric Turbidity Unit (NTU) - a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.
Non-Detects (ND) - laboratory analysis indicates that the constituent is not present.
Not Available or Not Applicable (N/A) – data is not available for the report or is not required because the water is not in the distribution of this system.
Not Required (NR) - laboratory analysis not required due to waiver granted by the Environmental Protection Agency for the State of Alabama.
Parts per billion (ppb) or Micrograms per liter - one part per billion corresponds to one minute in 2,000 years, or a single penny in $10,000,000.
Parts per million (ppm) or Milligrams per liter (mg/l) - one part per million corresponds to one minute in two years or a single penny in $10,000.
Parts per quadrillion (ppq) or Picograms per liter (picograms/l) - one part per quadrillion corresponds to one minute in 2,000,000,000 years, or a single penny in $10,000,000,000,000.
Parts per trillion (ppt) or Nanograms per liter (nanograms/l) - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in $10,000,000,000.
Picocuries per liter (pCi/L) - picocuries per liter is a measure of the radioactivity in water.
Running Annual Average (RAA) – used to report average levels of disinfection by-products (TTHM and HAA5) system-wide.
Standard Units (S.U.) - pH of water measures the water's balances of acids and bases and is affected by temperature and carbon dioxide gas. Water with less than 6.5 could be acidic, soft, and corrosive. A pH greater than 8.5 could indicate that the water is hard.
Treatment Technique (TT) - (mandatory language) a required process intended to reduce the level of a contaminant in drinking water.
Turbidity – a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.

At the end of this report a list of *Primary Drinking Water Contaminants* and a list of *Unregulated Contaminants* for which our water system routinely monitors. These contaminants were *not* detected in your drinking water unless they are listed in the *Table of Detected Drinking Water Contaminants.*

| REGULATED CONTAMINANTS | | | |
|---|---|---|---|
| **Bacteriological** | Mercury | Dichloromethane | Simazine |
| Total Coliform Bacteria | Nitrate | 1,2-Dichloropropane | Styrene |
| Fecal Coliform and E. coli | Nitrite | Di (2-ethylhexyl)adipate | Tetrachloroethylene |
| Fecal Indicators | Selenium | Di (2-ethylhexyl)phthalate | Toluene |
| Turbidity | Thallium | Dinoseb | Toxaphene |
| Cryptosporidium | **Organic Contaminants** | Dioxin [2,3,7,8-TCDD] | 2,4,5-TP(Silvex) |
| **Radiological** | 2,4-D | Diquat | 1,2,4-Trichlorobenzene |
| Beta/photon emitters | Acrylamide | Endothall | 1,1,1-Trichloroethane |
| Alpha emitters | Alachlor | Endrin | 1,1,2-Trichloroethane |
| Combined radium | Benzene | Epichlorohydrin | Trichloroethylene |
| Uranium | Benzo(a)pyrene [PAHs] | Ethylbenzene | Vinyl Chloride |
| **Inorganic Chemicals** | Carbofuran | Ethylene dibromide | Xylenes |
| Antimony | Carbon tetrachloride | Glyphosate | **Disinfection Byproducts** |
| Arsenic | Chlordane | Heptachlor | Chlorine |
| Asbestos | Chlorobenzene | Heptachlor epoxide | Chlorine Dioxide |
| Barium | Dalapon | Hexachlorobenzene | Chloramines |
| Beryllium | Dibromochloropropane | Hexachlorocyclopentadiene | Bromate |
| Cadmium | o-Dichlorobenzene | Lindane | Chlorite |
| Chromium | p-Dichlorobenzene | Methoxychlor | HAA5 [Total haloacetic acids] |
| Copper | 1,2-Dichloroethane | Oxamyl [Vydate] | TTHM [Total trihalomethanes] |
| Cyanide | 1,1-Dichloroethylene | Polychlorinated biphenyls | |
| Fluoride | cis-1,2-Dichloroethylene | Pentachlorophenol | |
| Lead | trans-1,2-Dichloroethylene | Picloram | |
| UNREGULATED CONTAMINANTS | | | |
| 1,1 – Dichloropropene | 1,1 – Dichloropropene | 1,1 – Dichloropropene | 1,1 – Dichloropropene |
| 1,1,1,2-Tetrachloroethane | 1,1,1,2-Tetrachloroethane | 1,1,1,2-Tetrachloroethane | 1,1,1,2-Tetrachloroethane |
| 1,1,2,2-Tetrachloroethane | 1,1,2,2-Tetrachloroethane | 1,1,2,2-Tetrachloroethane | 1,1,2,2-Tetrachloroethane |
| 1,1-Dichloroethane | 1,1-Dichloroethane | 1,1-Dichloroethane | 1,1-Dichloroethane |
| 1,2,3 - Trichlorobenzene | 1,2,3 - Trichlorobenzene | 1,2,3 - Trichlorobenzene | 1,2,3 - Trichlorobenzene |
| 1,2,3 - Trichloropropane | 1,2,3 - Trichloropropane | 1,2,3 - Trichloropropane | 1,2,3 - Trichloropropane |
| 1,2,4 - Trimethylbenzene | 1,2,4 - Trimethylbenzene | 1,2,4 - Trimethylbenzene | 1,2,4 - Trimethylbenzene |
| 1,3 – Dichloropropane | 1,3 – Dichloropropane | 1,3 – Dichloropropane | 1,3 – Dichloropropane |
| 1,3 – Dichloropropene | 1,3 – Dichloropropene | 1,3 – Dichloropropene | 1,3 – Dichloropropene |
| 1,3,5 - Trimethylbenzene | 1,3,5 - Trimethylbenzene | 1,3,5 - Trimethylbenzene | 1,3,5 - Trimethylbenzene |
| 2,2 – Dichloropropane | 2,2 – Dichloropropane | 2,2 – Dichloropropane | 2,2 – Dichloropropane |
| SECONDARY CONTAMINANTS | | | |
| Alkalinity, Total (as CA, $Co_3$) | Copper | Magnesium | Silver |
| Aluminum | Corrosivity | Manganese | Sodium |
| Calcium, as Ca | Foaming agents (MBAS) | Odor | Sulfate |
| Chloride | Hardness | Nickel | Total Dissolved Solids |
| Color | Iron | pH | Zinc |