

Southside Water Works and Sewer Board

2020 Annual Drinking Water Quality Report

Southside Water Works and Sewer Board is very pleased to provide you with this year's Annual Quality Water Report. We want to keep you informed about the excellent water and services we have delivered to you over the past year. Our goal is and always has been, to provide you a safe and dependable supply of drinking water. We want you to understand the efforts we make to maintain and continually improve the water you receive and to protect our water supply.

Southside's water is groundwater drawn from two (2) wells and water purchased from the City of Gadsden. Southside's wells draw from the Fort Payne Chert and the Cambrian and Ordovician Rocks undifferentiated. Each water system must complete a Source Water Assessment Program (SWAP). The SWAP is comprised of four distinct activities: delineation of the source water assessment area, contaminant inventory, susceptibility analysis and public awareness. SWWSB has completed each requirement component of the source water assessment and the Alabama Department of Environmental Management (ADEM) has approved the plan. The findings of the SWAP are available for your review at the office located at 3001 Highway 77. To provide safe drinking water chlorine is used as a disinfectant.

The Water Works and Sewer Board is pleased to report that our drinking water is safe and meets federal and state requirements. If you have any questions about this report or concerning your water utility, please contact Superintendent of Maintenance Brandon Sewell at (256)-442-8707 between 8:30 a.m. through 4:30 p.m. or e-mail your questions to jessica@southsidewater.us.

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 board meetings. They are held on the second Monday of each month, at 3:00 p.m., at the Water Works and Sewer Board Office located at 3001 Highway 77. The Southside Water Works and Sewer Board routinely monitors for constituents in your drinking water according to Federal and State laws.

This table shows the results of our monitoring for the period of January 1st to December 31st, 2020. It is important to remember that the presence of these constituents does not necessarily pose a health risk. This table has many abbreviations you might not be familiar with. To help you better understand these abbreviations we have provided the following definitions:

- Non-Detects (ND) – laboratory analysis indicates that the constituent is not present.
- 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 billion (ppb) or ug/l – 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 trillion (ppt) or nanograms per liter (ng/L) – one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.
- Parts per quadrillion (ppq) or picograms per liter (pg/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.
- Picocuries per liter (pCi/l) – picocuries per liter is a measure of radioactivity in water.
- Millirems per years (mrem/yr) – measure of radiation absorbed by the body.
- Nephelometric Turbidity Units (NTU) – a measure of the clarity of water. Turbidity more than 5 NTU is just noticeable to the average person.

- Maximum Contaminant Level – 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 – 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.

- 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.

- 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.

- MFL – Million Fibers per Liter.

- AL – Action Level – the concentrations of a contaminant, which, if exceeded, triggers, treatment, or other requirements, which a water system must follow.

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

- Variances and Exemptions – The Department or EPA permission not to meet and MCL or a treatment technique under certain conditions.

Table of Detected Contaminants

| Contaminant | Violation Y/N | Level Detected | Unit Measurement | MCLG | MCL | Likely Source of Contamination |
|--------------------------------------|---------------|----------------|------------------|------|--------|---|
| Microbiological Contaminants | | | | | | |
| Turbidity | No | 0.05 | NTU | N/A | TT | Soil runoff |
| Radioactive Contaminants | | | | | | |
| Alpha emitters | No | 0.6 | pCi/l | N/A | 15 | Erosion of natural deposits |
| Combined radium | No | 1.0 | pCi/l | N/A | 5 | Erosion of natural deposits |
| Inorganic Contaminants | | | | | | |
| Barium | No | 0.122 | ppm | 2 | 2 | Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits |
| Copper | No | 0.034 | ppm | 1.3 | AL=1.3 | Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives |
| Fluoride | No | 0.95 | ppm | 4 | 4 | Water additive which promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories |
| Lead | No | <5.0 | ppb | N/A | AL=15 | Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives |
| Nitrate | No | 0.55 | ppm | 10 | 10 | Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits |
| Volatile Organic Contaminants | | | | | | |
| Total Trihalomethanes (TTHM) | No | 36.5 | ppb | N/A | 80 | By-product of drinking water chlorination |
| Haloacetic Acids (HAA5) | No | 15.7 | ppb | N/A | 60 | By-product of drinking water chlorination |
| Total Organic Carbon (TOC) | No | 0.95 | ppm | N/A | TT | Naturally present in the environment |
| Chlorine | No | 2.76 | ppm | 4 | 4 | Water additive used to control microbes |

Table of Primary Contaminants

At high levels some primary contaminants are known to pose a health risk to humans.

This table provides a quick glance of any primary contaminant detections.

| Contaminant | MCL | Amount Detected | Contaminant | MCL | Amount Detected |
|-----------------------------------|------------|-----------------|----------------------------|---------|-----------------|
| Bacteriological | | | Endrin | 2 ppb | ND |
| Total Coliform Bacteria | <5% | ND | Epichlorohydrin | TT | ND |
| Turbidity | 5.0 NTU | 0.05 | Glyphosate | 700 ppb | ND |
| Fecal coliform and <i>E. coli</i> | TT | ND | Total Organic Carbon (TOC) | TT | 0.95 |
| Radiological | | | Heptachlor | 400 ppt | ND |
| Beta/Photon Emitters | 4 | ND | Heptachlor epoxide | 200 ppt | ND |
| Alpha Emitters | 15 | 0.6 | Hexachlorobenzene | 1 ppb | ND |
| Combined Radium | 5 | 1.0 | Hexachlorocyclopentadiene | 50 ppb | ND |
| Inorganic | | | Lindane | 200 ppt | ND |
| Antimony | 6 ppb | ND | Methoxychlor | 40 ppb | ND |
| Arsenic | 10 ppb | ND | Oxamyl (Vydate) | 200 ppb | ND |
| Asbestos (MFL) | 7 | ND | PCBs | 500 ppt | ND |
| Barium | 2 ppm | 0.122 | Pentachlorophenol | 1 ppb | ND |
| Beryllium | 4 ppb | ND | Picloram | 500 ppb | ND |
| Cadmium | 5 ppb | ND | Simazine | 4 ppb | ND |
| Chromium | 100 ppb | ND | Toxaphene | 3 ppb | ND |
| Copper | AL=1.3 ppm | 0.034 | Benzene | 5 ppb | ND |
| Cyanide | 200 ppb | ND | Carbon Tetrachloride | 5 ppb | ND |
| Fluoride | 4 ppm | 0.95 | Chlorobenzene | 100 ppb | ND |
| Lead | AL=15 ppb | <5.0 | Dibromochloropropane | 200 ppt | ND |
| Mercury | 2 ppb | ND | o-Dichlorobenzene | 600 ppb | ND |
| Nitrate | 10 ppm | 0.55 | p-Dichlorobenzene | 75 ppb | ND |
| Nitrite | 1 ppm | ND | 1,2-Dichloroethane | 5 ppb | ND |
| Selenium | 50 ppb | ND | 1,1-Dichloroethylene | 7 ppb | ND |
| Thallium | 2 ppb | ND | cis-1,2-Dichloroethylene | 70 ppb | ND |
| Organic Chemicals | | | trans-1,2-Dichloroethylene | 100 ppb | ND |
| 2,4-D | 70 ppb | ND | Dichloromethane | 5 ppb | ND |
| 2,4,5-TB (Silvex) | 50 ppb | ND | 1,2-Dichloropropane | 5 ppb | ND |
| Acrylamide | TT | ND | Ethylbenzene | 700 ppb | ND |
| Alachlor | 2 ppb | ND | Ethylene dibromide | 50 ppt | ND |
| Atrazine | 3 ppb | ND | Styrene | 100 ppb | ND |
| Benzo(a)pyrene (PAHs) | 200 ppt | ND | Tetrachloroethylene | 5 ppb | ND |
| Carbofuran | 40 ppb | ND | 1,2,4-Trichlorobenzene | 70 ppb | ND |
| Chlordane | 2 ppb | ND | 1,1,1-Trichloroethane | 200 ppb | ND |
| Dalapon | 200 ppb | ND | 1,1,2-Trichloroethane | 5 ppb | ND |
| Di-(2-ethylhexyl) adipate | 400 ppb | ND | Trichloroethylene | 5 ppb | ND |
| Di-(2-ethylhexyl) phthalates | 6 ppb | ND | TTHM | 80 ppb | 36.5 |

| | | | | | |
|-----------------------|---------|----|-------------------------|--------|------|
| Dinoseb | 7 ppb | ND | Haloacetic Acids (HAA5) | 60 ppb | 15.7 |
| Diquat | 20 ppb | ND | Toluene | 1 ppm | ND |
| Dioxin (2,3,7,8-TCDD) | 30 ppq | ND | Vinyl Chloride | 2 ppb | ND |
| Endothall | 100 ppb | ND | Xylenes | 10 ppm | ND |

Unregulated contaminants have no MCL set by the EPA or ADEM but are tested for in your drinking water. These contaminants pose many of the same health risk as the regulated contaminants but their presence in most drinking water is not frequent enough to warrant regulation. Unregulated contaminants are tested for to provide historical data on components presence in drinking water over time.

| Test Results – Unregulated Contaminant Table | | | | | |
|--|------------|-------------|-------------------------|------------|-------------|
| Monitoring Results in ppb | | | | | |
| CONTAMINANT | Low Result | High Result | CONTAMINANT | Low Result | High Result |
| 1,1 – Dichloropropene | ND | ND | Chloroform | 4.9 | 19 |
| 1,1,1,2-Tetrachloroethane | ND | ND | Chloromethane | ND | ND |
| 1,1,2,2-Tetrachloroethane | ND | ND | Dibromochloromethane | ND | ND |
| 1,1-Dichloroethane | ND | ND | Dibromomethane | ND | ND |
| 1,2,3 – Trichlorobenzene | ND | ND | Dicamba | ND | ND |
| 1,2,3 – Trichloropropane | ND | ND | Dichlorodifluoromethane | ND | ND |
| 1,2,4 – Trimethylbenzene | ND | ND | Dieldrin | ND | ND |
| 1,3 – Dichloropropane | ND | ND | Hexachlorobutadiene | ND | ND |
| 1,3 – Dichloropropene | ND | ND | Isopropylbenzene | ND | ND |
| 1,3,5 – Trimethylbenzene | ND | ND | M-Dichlorobenzene | ND | ND |
| 2,2 – Dichloropropane | ND | ND | Methomyl | ND | ND |
| β-Hydroxycarbofuran | ND | ND | MTBE | ND | ND |
| Aldicarb | ND | ND | Metolachlor | ND | ND |
| Aldicarb Sulfone | ND | ND | Metribuzin | ND | ND |
| Aldicarb Sulfoxide | ND | ND | N - Butylbenzene | ND | ND |
| Aldrin | ND | ND | Naphthalene | ND | ND |
| Bromobenzene | ND | ND | N-Propylbenzene | ND | ND |
| Bromochloromethane | ND | ND | O-Chlorotoluene | ND | ND |
| Bromodichloromethane | 1.8 | 11.0 | P-Chlorotoluene | ND | ND |
| Bromoform | ND | ND | P-Isopropyltoluene | ND | ND |
| Bromomethane | ND | ND | Propachlor | ND | ND |
| Butachlor | ND | ND | Sec - Butylbenzene | ND | ND |
| Carbaryl | ND | ND | Tert - Butylbenzene | ND | ND |
| Chloroethane | ND | ND | Trichlorofluoromethane | ND | ND |

The third Unregulated Contaminant Rule (UCMR3) was initiated by EPA in 2012. UCMR3 requires the monitoring of two viruses and 28 unregulated chemical contaminants. These contaminants pose many of the same health risk as the regulated contaminants but their presence in most drinking water is not frequent enough to warrant regulation. Unregulated contaminants are tested for to provide historical data on components presence in drinking water over time.

| Third Unregulated Contaminant Monitoring (UCMR 3) | | | |
|---|----------|-------------------------------------|----------|
| Monitoring results in ppb | | | |
| CONTAMINANT | Detected | CONTAMINANT | Detected |
| 1,2,3 -trichloropropane | ND | Cobalt | ND |
| 1,3-butadiene | ND | Strontium | 61 |
| chloromethane (methyl chloride) | ND | chromium ⁵ | 0.5 |
| 1,1-dichloroethane | ND | chromium-6 ⁶ | 0.53 |
| Bromomethane | ND | Chlorate | 43 |
| chlorodifluoromethane (HCFC-22) | ND | perfluorooctanesulfonic acid (PFOS) | 0.05 |

| | | | |
|---------------------------------|------|--------------------------------------|------|
| bromochloromethane (Halon 1011) | ND | perfluorooctanoic acid (PFOA) | 0.04 |
| 1,4-dioxane | 0.25 | perfluorononanoic acid (PFNA) | ND |
| Vanadium | 0.5 | perfluorohexanesulfonic acid (PFHxS) | ND |
| Molybdenum | ND | perfluorobutanesulfonic acid (PFBS) | ND |
| 17-β-estradiol | ND | perfluoroheptanoic acid (PFHpA) | 0.01 |
| 17-α-ethynylestradiol | ND | Estrone | ND |
| Estriol | ND | testosterone | ND |
| Equilin | ND | 4-anadrostene-3,17 dione | ND |
| Noroviruses | ND | enteroviruses | ND |
| Manganese | ND | germanium | ND |

The fourth Unregulated Contaminant Rule (UCMR4) was initiated by EPA in 2016. UCMR4 requires the monitoring of 10 cyanotoxins and 20 additional unregulated chemical contaminants. These contaminants pose many of the same health risk as the regulated contaminants but their presence in most drinking water is not frequent enough to warrant regulation. Unregulated contaminants are tested for to provide historical data on components present in drinking water over time.

| Fourth Unregulated Contaminant Monitoring (UCMR4) | | | |
|---|----------|----------------------------|----------|
| Monitoring results in ppb | | | |
| | Detected | | Detected |
| Germanium | ND | Tribufos | ND |
| Manganese | 1.2 | 1-butanol | ND |
| Alpha-hexachlorocyclohexane | ND | 2-methoxyethanol | ND |
| Chlorpyrifos | ND | 2-propen-1-ol | ND |
| Dimethipin | ND | Butylated hydroxyanisole | ND |
| Ethoprop | ND | O-toluidine | ND |
| Oxyfluorfen | ND | Quinoline | ND |
| Profenofos | ND | Total Organic Carbon (TOC) | ND |
| Tebuconazole | ND | Bromide | ND |
| Total permethrin (cis- & trans-) | ND | | |
| Bromochloroacetic Acid | 4.3 | Monobromoacetic Acid | ND |
| Bromodichloroacetic Acid | 5.2 | Monochloroacetic Acid | ND |
| Chlorodibromoacetic Acid | 1.1 | Tribromoacetic Acid | ND |
| Dibromoacetic Acid | 0.57 | Trichloroacetic Acid | 11.8 |
| Dichloroacetic Acid | 1.1 | | |

As you can see by the tables, our system had no violations of allowable limits of contaminants in your drinking water. We are proud that your drinking water meets or exceeds all Federal and State requirements. We have learned through our monitoring and testing that some constituents have been detected. The EPA has determined that your water IS SAFE at these levels.

All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these does not necessarily indicate that water poses a health risk. More information can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

The sources of drinking water (both tap and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of 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.

Southside Water Works and Sewer Board wants you to be aware that there is not a problem with lead in your 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. Southside Water Works and Sewer Board 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 or at <http://www.epa.gov/safewater/lead>.

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.

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 microbiological contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791). All drinking water, including bottled water, may be reasonably expected to contain at least small amounts of some constituents. It is important to remember that the presence of these constituents does not necessarily pose a health risk.

Southside Water also tests for disinfection byproducts in your water, such as *trihalomethanes* and *haloacetic acids*. Disinfection byproducts are contaminants that develop when chlorine breaks down over an extended period. All test results were well within state and federal standards.

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 is not required.

Southside Water Works and Sewer Board strives to provide a dependable and safe supply of water to all consumers. At times, your water service may be interrupted due to the circumstances beyond our control and construction activity from continuous growth. When these occurrences take place, you may notice cloudy, dingy, or even muddy looking water due to the disturbance in the lines. We apologize for these instances and try to flush our lines to prevent this from happening. Often consumers will install a low-cost water filter in their line to help remove settleings in these instances.

Southside Water Works and Sewer Board
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