

# Water Quality Report

For Period Ending December 2011



**Anniston Water Works & Sewer Board**

931 Noble Street, Anniston, AL 36201

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## Anniston Water Works - We Deliver!

Ever stop to think about how handy it is to have water 24/7? Or how important it is to have that fire hydrant on the corner, maintained and ready for use at a moments notice? Likely you are among the majority of water and sewer customers who take modern day water and sanitary sewer service for granted. We are proud of the fact that you can. And in so many ways including reliable and low cost water service, we do deliver. This water quality report is packed with information on the quality of tap water delivered to your door every day as well as to every industrial and commercial customer in our area.

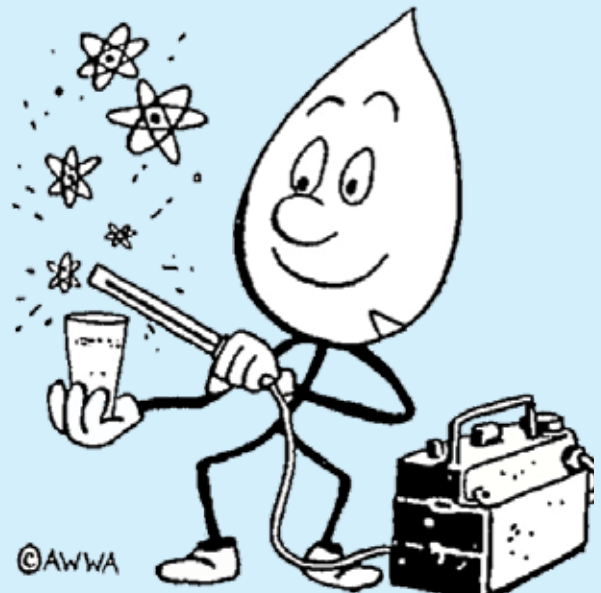
Low cost, reliable, high quality water service does not happen by accident. Every day, all day while you do what you do and while you are sleeping dedicated, highly trained, hard working water works personnel are on the job making sure high quality tap water is delivered safely to your home and making sure that your sanitary waste is carried safely to a treatment plant and properly treated to protect the environment. Most of our employees must be certified and licensed by the state to perform their jobs. That requires a good deal of training and constant continuing education. We deliver professionalism!

That staff is doing more with less. New technology coupled with better organization and hard work has enabled the water works to reduce staff although our service territory has expanded by nearly 40% in the past fifteen years. At the same time our utility is financially sound our water and sewer rates remain among the lowest in the state and nation. We deliver efficiency and value!

Anniston Water Works is one of many water utilities across the nation that adds fluoride to its water to promote dental health. At very low cost, the addition of fluoride is a proven tooth decay preventative and has been cited as one of the twenty-first century's greatest advancements in public health. The Water Works recently received a commendation from the Department of Public Health and the Centers for Disease Control for its fluoridation practices. We deliver disease prevention and public health!

The men and women at the Water Works deliver so much more than just water and sewer service. Over the past fifteen years staff from the Water Works have participated in almost every charitable endeavor in the county: United Way, YMCA, Chamber of Commerce, Red Cross, Community Garden, Soup Kitchen, Meals

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Este informe contiene la información! Si usted no entiende este informe, pida que alguien lo traduzca usted.

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of Mercy, Noble Street Festival and many more. We are, and will continue be a part of the community where we work. We deliver community service!

This year is historic for us. In April we occupied our new Operations Center in the heart of the Anniston Downtown near Zinn Park and the new Justice Center. The old Opportunity Center property offered us an opportunity to centralize our operations in a more convenient location within our service territory. That will save man hours and many gallons of fuel while decreasing response times to water and sewer emergencies. Additionally, we are working with the developers to complete the redevelopment of the Watermark Tower project. While that project has been challenging we believe the reward will be a more viable downtown economy which benefits us and our customers. A fully occupied Watermark Tower will almost certainly enhance the business environment in the downtown. We deliver economic development and downtown revitalization!

That's just a snapshot of the Anniston Water Works in 2011 and 2012. Please read the rest of this report for a closer look at the results of our work. You will see that we deliver quality.

*Jim Miller, General Manager*

**Important Information to Know about Water**

- o Substances that may be present in source water include: Microbial contaminates, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- o Inorganic contaminates, such as salts and metals, which can be naturally occurring, or as result from urban run-off, industrial or domestic wastewater discharges, oil or gas production, mining or farming.
- o Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water run-off, and residential uses, organic chemical contaminates, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban storm run-off, and septic tanks.
- o Radioactive contaminates, which can be naturally occurring or be the result of oil and gas production and mining activities.
- o In order to ensure that tap water is safe, EPA prescribes regulations which limit the amount of certain contaminates in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminates in bottled water, which must provide the same protection for public health.
- o 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. Those 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). This information is being provided in addition to other information or notices that may be required by law.

**List of Non-Detect Substances** (Anniston Water Works tested for the following substances in 2011 but none were detected.)

|                           |                         |                           |                            |                |                       |                            |                           |
|---------------------------|-------------------------|---------------------------|----------------------------|----------------|-----------------------|----------------------------|---------------------------|
| 1,1 - Dichloropropene     | Bromomethane            | P-Chlorotoluene           | 1,2-Dichloropropane        | Vinyl Chloride | Thallium              | Chlordane                  | Hexachlorobenzene         |
| 1,1,2,2-Tetrachloroethane | Chloroethane            | P-Isopropyltoluene        | Benzene                    | Xylenes        | Foaming Agents        | Dalapon                    | Hexachlorocyclopentadiene |
| 1,1-Dichloroethane        | Chloromethane           | Sec - Butylbenzene        | Carbon Tetrachloride       | Antimony       | Silver                | Di-(2-ethylhexyl)adipate   | Lindane                   |
| 1,2,3 - Trichlorobenzene  | Dibromomethane          | Tert - Butylbenzene       | Chlorobenzene              | Arsenic        | Zinc                  | Di(2-ethylhexyl)phthalates | Methoxychlor              |
| 1,2,3 - Trichloropropane  | Dichlorodifluoromethane | Trichlorofluoromethane    | cis-1,2-Dichloroethylene   | Beryllium      | Monochloroacetic Acid | Dibromochloropropane       | Oxamyl [Vydate]           |
| 1,2,4 - Trimethylbenzene  | Hexachlorobutadiene     | 1,1,1,2-Tetrachloroethane | Dichloromethane            | Cadmium        | Dibromoacetic Acid    | Dinoseb                    | PCBs                      |
| 1,3 - Dichloropropane     | Isopropylbenzene        | Trans 1,3 Dichloropropene | Ethylbenzene               | Cyanide        | Monobromoacetic Acid  | Diquat                     | Pentachlorophenol         |
| 1,3 - Dichloropropene     | M-Dichlorobenzene       | O-Dichlorobenzene         | p-Dichlorobenzene          | Lead           | 2,4,5-TP (Silvex)     | Endothall                  | Picloram                  |
| 1,3,5 - Trimethylbenzene  | MTBE                    | 1,1,1-Trichloroethane     | Styrene                    | Mercury        | 2,4-D                 | Endrin                     | Simazine                  |
| 2,2 - Dichloropropane     | N - Butylbenzene        | 1,1,2-Trichloroethane     | Tetrachloroethylene        | Nickel         | Alachlor              | Ethylene dibromide         | Toxaphene                 |
| Bromobenzene              | Naphthalene             | 1,1-Dichloroethylene      | Toluene                    | Nitrate        | Atrazine              | Glyphosate                 | Color                     |
| Bromochloromethane        | N-Propylbenzene         | 1,2,4-Trichlorobenzene    | trans-1,2-Dichloroethylene | Nitrite        | Benzo(a)pyrene(PAHs)  | Heptachlor                 | Chromium                  |
| Bromoform                 | O-Chlorotoluene         | 1,2-Dichloroethane        | Trichloroethylene          | Selenium       | Carbafuran            | Heptachlor epoxide         | Carbon Dioxide            |

**OUR MISSION IS:**

- **SERVICE** — by providing high quality drinking water to our customers on demand while maintaining our plants and equipment to facilitate economic growth and development.
- **PROTECTION OF THE ENVIRONMENT AND PUBLIC HEALTH** — through responsible wastewater treatment and source water protection
- **CONTINUOUS IMPROVEMENT** — of our processes and personnel to achieve the highest standards of customer satisfaction and to meet or exceed all water and wastewater quality standards.



## DETECTED SUBSTANCES TABLE FOR PERIOD JANUARY -- DECEMBER 2011

| Water Source   |          | Coldwater Spring |           | Hillabee Reservoir                                     |                              |                    |   |
|--|----------|------------------|-----------|--|------------------------------|--------------------|---|
| Primary Inorganic Substances   | Units    | MCL              | MCLG      | Highest Level Last 12 Months                           |                              | Violation (Yes/No) | Source of Substance   |
| Barium   | ppb      | 2000             | 2000      | 22.6   | 16.4                         | No                 | Discharge of drilling wastes; discharge from metals refineries; erosion of natural deposits                               |
| Chlorine   | ppm      | 4 (MRDL)         | 4 (MRDLG) | 1.71   | 1.98                         | No                 | Water additive used to control microbes   |
| Fluoride   | ppb      | 4                | 4         | Less than 0.60   | Less than 0.60               | No                 | Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories |
| Sulfate  | ppm      | 500              | --        | 2.03   | 9.03                         | No                 | Erosion of natural deposits   |
| Secondary Inorganic Substances   | Units    | MCL              | MCLG      | Highest Level Last 12 Months                           |                              | Violation (Yes/No) | Source of Substance   |
| Alkalinity, Total  | ppm      | --               | --        | 99.4   | 61.2                         | No                 | Erosion of natural deposits   |
| Aluminum   | ppb      | 200              | --        | Less than 3.00   | 46.5                         | No                 | Water additive for removing organics; Erosion of natural deposits   |
| Calcium  | ppm      | --               | --        | 22.7   | 17.7                         | No                 | Erosion of natural deposits   |
| Chloride   | ppm      | [250]            | --        | 2.73   | 4.89                         | No                 | An inorganic constituent in water affecting taste   |
| Conductance  | umhos/cm | --               | --        | 162  | 165                          | No                 | Erosion of natural deposits   |
| Copper   | ppb      | 1300             | 1300      | 15.1   | 1.14                         | No                 | Corrosion of household plumbing systems; Erosion of natural deposits  |
| Hardness, Total (As CaCO <sub>3</sub> )  | ppm      | --               | --        | 104  | 68.9                         | No                 | Erosion of natural deposits   |
| Iron   | ppb      | 300              | --        | Less than 5.0  | 7.46                         | No                 | Erosion of natural deposits   |
| Magnesium  | ppm      | --               | --        | 11.5   | 6.01                         | No                 | Erosion of natural deposits   |
| Manganese  | ppm      | 50               | --        | Less than 1.00   | 4.51                         | No                 | Erosion of natural deposits   |
| pH   | ppm      | --               | --        | 7.78   | 8.28                         | No                 | An indicator of acidity or alkalinity levels of water   |
| Sodium   | ppb      | --               | --        | 1.86   | 1.59                         | No                 | Erosion of natural deposits   |
| Total Dissolved Solids   | ppm      | [500]            | --        | 97   | 139                          | No                 | Erosion of natural deposits   |
| Disinfection By-Products (at the Plants)   | Units    | MCL              | MCLG      | Highest Level Last 12 Months                           |                              | Violation (Yes/No) | Source of Substance   |
| Total Trihalomethanes (TTHM's)   | ppb      | 80               | 0         | Less than 2.0  | 68                           | No                 | By-product of drinking water chlorination   |
| Haloacetic Acids (HAA5's)  | ppb      | 60               | 0         | Less than 6.0  | 38.5                         | No                 | By-product of drinking water chlorination   |
| Disinfection By-Products (in Distribution System)  | Units    | MCL              | MCLG      | Highest Level Last 12 Months                           |                              | Violation (Yes/No) | Source of Substance   |
| Total Trihalomethanes (TTHM's)   | ppb      | 80               | 0         | 2.63   | 3.00                         | No                 | By-product of drinking water chlorination   |
| Haloacetic Acids (HAA5's)  | ppb      | 60               | 0         | Less than 6.00   | Less than 6.00               | No                 | By-product of drinking water chlorination   |
| <small>Total Trihalomethanes (TTHM's) are the sum of the concentrations of bromoform, bromodichloromethane, chlorodibromomethane, and chloroform MCL equal to or less than 80 ppb.<br/>                     Haloacetic Acids (HAA5's) are the sum of the concentrations of dibromoacetic acid, dichloroacetic acid, monobromoacetic acid, and trichloroacetic acid MCL equal to or less than 60 ppb.</small>   |          |                  |           |  |                              |                    |   |
| Regulated Volatile Chemicals   | Units    | MCL              | MCLG      | Highest Level Last 12 Months                           |                              | Violation (Yes/No) | Source of Substance   |
| TCE (Trichloroethylene)  | ppb      | 5                | 0         | Less than 0.5  | Less than 0.5                | No                 | Discharge from metal degreasing sites and other factories   |
| cis-1,2-Dichloroethylene   | ppb      | 70               | 70        | Less than 0.5  | Less than 0.5                | No                 | Discharge from industrial chemical factories  |
| Non-Regulated Contaminants Table   | Units    | MCL              | MCLG      | Highest Level Last 12 Months                           |                              | Violation (Yes/No) | Source of Substance   |
| Total Organic Carbon   | ppb      | Not Regulated    |           | Not Detected   | 1.8                          | No                 | Natural sources   |
| Radionuclides  | Units    | MCL              | MCLG      | Water Sources: Coldwater Spring and Hillabee Reservoir |                              | Violation (Yes/No) | Source of Substance   |
| Gross Alpha  | pCi/l    | 15               | 0         | Sampling not required in 2011                          |                              | No                 | Erosion of natural deposits   |
| Turbidity  | Units    | MCL              | MCLG      | Highest Level Last 12 Months                           | Highest Level Last 12 Months | Violation (Yes/No) | Source of Substance   |
| Turbidity  | NTU      | 0.3              | 0.1       | 0.07   | 0.11                         | No                 | Erosion of natural deposits and soil runoff   |
| <small>100% of samples were below the turbidity limits. Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.</small>  |          |                  |           |  |                              |                    |   |
| Lead & Copper Monitoring   | Units    | MCL              | MCLG      | Distribution System Violations                         |                              | Violation (Yes/No) | Source of Substance   |
| Lead   | ppb      | 15               | 0         | 0  |                              | No                 | Corrosion of household plumbing systems; erosion of natural deposits  |
| Copper   | ppb      | 1300             | 1300      | 0  |                              | No                 | Corrosion of household plumbing systems; erosion of natural deposits  |
| Lead and copper are metals found in natural deposits as ores containing other elements. They are sometimes used in household plumbing materials or in water service lines used to bring water from the main to the home.<br>Lead can cause a variety of adverse health effects when people are exposed to it at levels above the action level for relatively short periods of time. These effects may include interference with red blood cell chemistry, delays in normal physical and mental development in babies and young children, slight deficits in the attention span, hearing, and learning abilities of children, and slight increases in the blood pressure of some adults. Lead has the potential to cause the following effects from a lifetime exposure at levels above the action level: stroke and kidney disease; cancer.<br>Copper is an essential nutrient, required by the body in very small amounts. However, EPA has found copper to potentially cause the following health effects when people are exposed to it at levels above the Action Level. Short periods of exposure can cause gastrointestinal disturbance including nausea and vomiting. Use of water that exceeds the Action Level over many years could cause liver or kidney damage. People with Wilsons disease may be more sensitive than others to the effect of copper contamination and should consult their health care provider.<br>State and local government agencies that can be contacted include: Anniston Water Works at 256-236-3429 can provide you with information about your facility's water supply; and the Calhoun County Health Department at 256-237-7523 can provide you with information about the health effects of lead and how you can have your child's blood tested. For more information on reducing lead exposure around your home/building and the health effects of lead, visit EPA's website at <a href="http://www.epa.gov/lead">http://www.epa.gov/lead</a> or contact your health care provider. |          |                  |           |  |                              |                    |   |

## MICROBIOLOGICAL SUBSTANCES TABLE FOR PERIOD JANUARY -- DECEMBER 2011

| Water Source   |              | Coldwater Spring |                              | Hillabee Reservoir |                    |                              |  |
|--|--------------|------------------|------------------------------|--------------------|--------------------|------------------------------|--|
| Total Coliforms  | MCL          | MCLG             | Highest Level Last 12 Months |                    | Violation (Yes/No) | Source of Substance          |  |
| Not more than 5% of the 70 monthly bacteriological samples taken during the month can test positive for total coliform. No sample can test positive for fecal coliform or E. Coli. | Less than 5% | 0                | 1.40%                        |                    | No                 | Human and animal fecal waste |  |

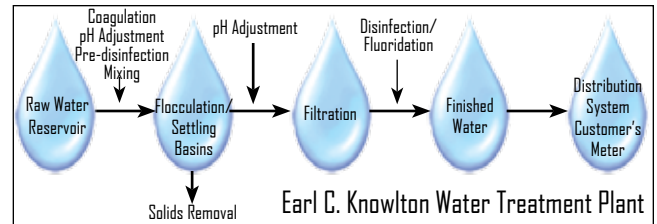
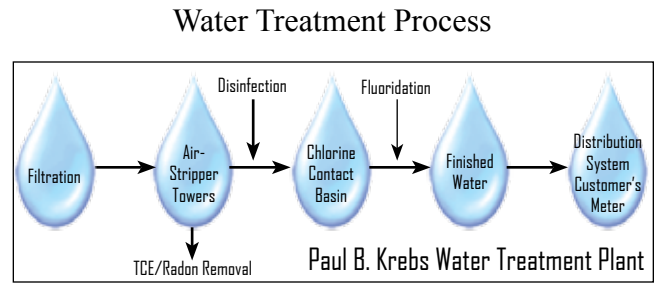


## 2011 OPTIMIZATION AWARD

The Anniston Water Works Board was awarded the Alabama Department of Environmental Management's Optimized Water Treatment Plant Award for the eighth straight year in 2011.

The award for the Area-Wide Optimization Program is a program between USEPA and ADEM. The program goal is to "provide the best quality water to the citizens of Alabama by optimizing existing infrastructure to the fullest extent possible with minimal cost to the utility".

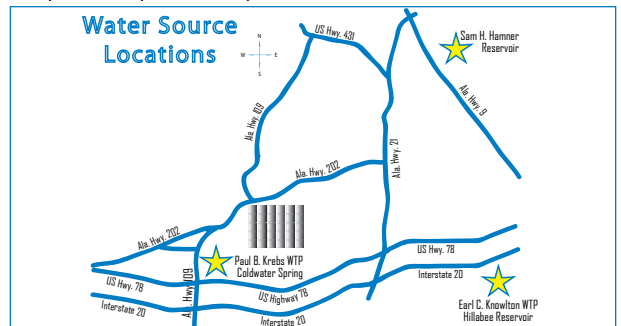
To protect public health and define "Optimized Performance", the program sets forth specific goals for water systems that maximize public health protection by establishing specific water plant treatment goals. EPA Region IV and the ADEM Drinking Water Branch establish the goals of the program.



Drinking water supplied to customers of the Anniston System comes from two sources. Our primary water source is the Coldwater Spring located 7 miles west of Anniston on Tom Burkhart Drive. The Alabama Department of Environmental Management classifies Coldwater Spring as groundwater under the influence of surface water. Water from the spring is treated at the Paul B. Krebs Water Treatment Plant. The statement "under the influence," in this case, refers to the uncovered spring pool, which is almost two acres in size.

Our secondary source of water is the Hillabee Creek Reservoir located 7 miles southeast of Anniston on Jennifer Lane. Hillabee Reservoir is classified as a surface water source. Water from the reservoir is treated at the Earl C. Knowlton Water Treatment Plant located just to the north of the reservoir.

The Sam H. Hamner Reservoir is located 7 miles east of Anniston near the White Plains Community. Although no water is currently taken from Hamner it is included with Coldwater Spring and Hillabee Reservoir in our Source Water Protection Plan. The current ranking of our source waters by the Alabama Department of Environmental Management is "Low Susceptibility", meaning our water sources are well protected from elements likely to cause contamination. Anniston Water Works completed an update of the plan for Hillabee Reservoir in 2007.



| Definitions/Abbreviations Used in this Report |  |   |
|---|--|---|
| AL  | Action Level                                     | The concentration of a contaminant which triggers treatment or other requirements which a water system must follow.   |
| MCL   | Maximum Contaminant Level                        | The highest level of a contaminant that is allowed in drinking water.   |
| MCLG  | Maximum Contaminant Level Goal                   | The level of a contaminant in drinking water below which there is no known or expected health risk.   |
| MRDL  | Maximum Residual Disinfectant Level              | 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.   |
| MRDLG   | Maximum Residual Disinfectant Level Goal         | 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.  |
| NS  | None Set   | No MCL has been set.  |
| NTU   | Nephelometric Turbidity Units                    | A measure of turbidity. Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches. |
| pCi/L   | Picocuries Per Liter                             | A measure of radioactivity.   |
| PPM   | Parts per Million or milligrams per liter (mg/L) | <b>What is a PPM?</b> Compares to 8 hours and 45 seconds out of a millennium (1000 years).  |
| PPB   | Parts per Billion or micrograms per liter (mg/L) | <b>What is a PPB?</b> Compares to 31 seconds out of a millennium (1000 years).  |
| SU  | Standard Unit                                    | A measure of pH or acidity.   |
| TT  | Treatment Technique                              | A required process intended to reduce the level of a contaminant in drinking water.   |

The Alabama Department of Environmental Management (ADEM), with the approval of the United States Environmental Protection Agency (EPA), issued a statewide waiver on monitoring for asbestos and dioxin. Accordingly, Anniston Water Works was not required to monitor for these during the reporting period. Due to the exceptional quality of raw water at Coldwater Spring, the treatment technique at the Paul B. Krebs Water Treatment Plant employs a variance of the filtration rule which was granted by ADEM.

This report is being furnished to you as required by the Safe Drinking Water Act. We are proud to report that your drinking water is safe and meets all requirements of state and federal regulations.

The United States Environmental Protection Agency maintains a Safe Drinking Water Hotline, 800-426-4791, where you can obtain more information about drinking water.

| Anniston Water Works Board of Directors and Management Personnel |   |
|--|---|
| James Miller, General Manager                                    | Rodney Owens, Assistant General Manager |
| Jimmy D'Dell, Chairman   | Betty Merriweather, Director            |
| Jerome Freeman, Vice Chairman                                    | Sam Phillips, Director                  |
| William Robison, Secretary-Treasurer                             | Ann Welch, Director                     |
| Melvin Womack, Director  |   |

The Board of Directors of the Anniston Water Works consists of four directors appointed by the City of Anniston and three directors appointed by the Calhoun County legislative delegation. The Directors serve for a period of six years with reappointments being made on a staggered basis so all of the members are not replaced during the same year. Board meetings are held on the third Thursday of each month at three o'clock in the afternoon at the Main Office located at 131 West 11th Street, Anniston, Alabama. Questions concerning meetings or requests for additional information should be directed to the General Manager and/or Assistant General Manager during normal business hours (Monday-Friday, 7:30 a.m. to 4:30 p.m.) by calling 256-236-3429.