## Secondary Contaminants Table

| Contaminant | Violation Y/N | Level Detected | Unit Measure-ment | MCLG | MCL |
|---|---|---|---|---|---|
| Aluminum | N | Values Ranged BMDL to 0.0017 ppm | ppm | 0.2 | 0.2 ppm |
| Chloride | N | Values Ranged 3.5 to 8 ppm | ppm | 250 | 250 ppm |
| Color | N | All The Values Were 0 Units | Units | 15 | 15 Units |
| Copper | N | Values Ranged BMDL to 0.02 ppm | ppm | 1 | 1 ppm |
| Foaming Agents | N | The Single Value Was 0 | ppm | 0.5 | 0.5 ppm |
| Iron | N | All The Values Were 0 | ppm | 0.3 | 0.3 ppm |
| Manganese | N | Values Ranged BMDL to 0.02 ppm | ppm | 0.05 | 0.05 ppm |
| Silver | N | The Single Value Was 0 | ppm | 0.1 | 0.1 ppm |
| Zinc | N | Values Ranged 0.0015 to 0.0027 ppm | ppm | 5 | 5 ppm |
| Sulfate | N | Values Ranged 5.76 to 21 ppm | ppm | 250 | 250 ppm |
| Total Dissolved Solids | N | Values Ranged 6 to 239 ppm | ppm | 500 | 500 ppm |

## Report Summary

As you can see by the enclosed tables, our system had no MCL violations. We have learned through our monitoring and testing that some constituents have been detected at levels that are deemed safe by the EPA (Environmental Protection Agency)

## Waiver

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.

## Additional Monitoring

As required by EPA's Long Term 2 Surface Water Treatment Rule, The Utilities Board starts a new sampling cycle every 7 years for Cryptosporidium. We started our sampling period in October 2016 and we have pulled a raw sample every month since then. The sampling period ended in September 2018. We had no detects for 2018. We also sampled three quarters for the EPA's fourth unregulated containments rule. This sampling helps the EPA determine if a MCL will be set for a specific contaminant. The detected values are listed under the unregulated detected containments table.

## Educational Information

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 (Environmental Protection Agency)/CDC (Center of Disease Control) guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline at 1-800-426-4791.

All 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 the 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 radioactive material, and it can pick up substances resulting from the presence of animals or from human activity.

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. The Sylacauga Utilities 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.

## Source Water Assessment

The Sylacauga Utilities Board in association with the Alabama Geological Survey has completed an extensive source water assessment to identify potential contaminants sites that could pose a risk to the water supply. With the aid of the Alabama Department Of Environmental Management and The Geological Survey Of Alabama, a susceptibility analysis has been performed. The study concluded that the water supply has a low susceptibility to contamination. The public may review the report during normal business hours at the Utilities Board Operations Center located at 1414 Edwards Street. Copies are available upon request for a fee. To purchase a copy call 256-249-0372.

## Water Treatment Process

Lake Howard surface water is coagulated, flocculated and settled to remove microbial and suspended solids. It is filtered by sand filtration. Fluoride is added for dental health. The PH is adjusted to prevent plumbing corrosion and chlorine is added to prevent microbial contamination.

The Utilities Board of the City of Sylacauga ("the Board") owns, maintains and operates a water system consisting of two (2) wells, two water supply reservoirs (Lake Howard and Lake Virginia), a conventional surface water treatment plant, water transmission and distribution mains, six (6) water booster pumping stations and ten (10) water storage tanks.

The Board currently supplies an average of 3.2 million gallons of potable water per day to 7,550 residential, commercial and industrial customers in and contiguous to the City of Sylacauga. The maximum peak demand for potable water during 2018 was 4.97 million gallons per day.

The primary source of potable water is the Pine Grove Well. This well was constructed in 2009 and placed in service on January 12, 2010. The Pine Grove Well has a capacity of 2.16 million gallons per day or 1500 gallons per minute. Park Well located behind the Chamber of Commerce near the tennis courts has a capacity of .5 million gallons per day or 300 gallons per minute.

The Lake Howard Water Treatment Plant is now operated as a peaking plant and is used when the water demand exceeds the capacity of the wells.

Lake Howard has a water storage capacity of 1,075 million gallons while Lake Virginia has a storage capacity of 552 million gallons. The "safe" combined yield of Lake Howard and Lake Virginia is approximately 9.944 million gallons per day during extreme 120-days drought conditions.

The ten storage tanks in the system have a combined storage capacity of 7.68 million gallons. The distribution system consists of approximately 255 miles of pipe ranging in size from 2 inch to 24 inch in diameter. There are 763 fire hydrants located within the system.

# Annual Water Quality Report

January 1, 2018— December 31, 2018


***Office***
***301 N. Elm Avenue***
***Sylacauga, Alabama 35150***

***Operations Center***
***1414 Edwards Street***
***Sylacauga, Alabama 35150***


**Utilities Board Members**

***Dale Baker * Brad Porch * Mark Tapley***

# Water Quality Report

In 1974 the Safe Drinking Water Act (SDWA) was signed into law requiring all water systems that serve the public to meet national standards for water quality. These standards set limits for certain contaminants and require all public water systems to monitor for these contaminants. The Utilities Board routinely tests for these constituents in your drinking water according to federal and state laws. These tests have shown that your water meets and exceeds all state and federal requirements. The tables in this report show the monitoring results beginning January 1, 2018 thru December 31, 2018. If you have any questions concerning water quality please contact Water Quality Supervisor David Green at 256-249-0372. You may also attend the monthly Board meeting held at 9:00 AM on the third Tuesday of each month at the board office located at 301 N. Elm Ave.

## Sources Of Water

Operating under permit by the (ADEM) Alabama Department of Environmental Management, the Utilities Board operated the following facilities during 2018:

1. **Lake Howard Surface Treatment Plant.** This plant is located on Water Plant Road. Lake Howard is an impoundment on Tallasseehatchee Creek, which flows out of the Talladega National Forest.
2. **Park Well** - Located on Spring and Norton near the post office.
3. **Pinegrove Well** - This well is located on Pine Grove Road in Odena

## Definitions

In the following table you will find many terms and abbreviations that may not be familiar to you. To help you better understand these terms, we've provided the following definitions.

1. **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
2. **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.
3. **Maximum Residual Disinfectant Level Goal or 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 contamination
4. **Maximum Residual Disinfectant Level MRDL** The highest level of a disinfectant allowed in drinking water. There is convincing evidence that the addition of disinfectant is necessary to control microbial contamination.
5. **Treatment Technique (TT)** - A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.
6. **Action Level (AL)** - The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
7. **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.
8. **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.
9. **Nephelometric Turbidity Unit (NTU)** - Nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.
10. **Variances and Exemptions** - The department or EPA permission not to meet an MCL or a treatment technique under certain conditions.
11. **ND** = Not Detected
12. **DBP** = Disinfection Byproducts
13. **PPT** = Parts per trillion or nanograms per liter
14. **PPQ** = Parts per quadrillion or pictograms per liter
15. **DSE** = Distribution System Evaluation
16. **CASRN** = Chemical Abstracts Service Registry Number
17. **MRL** = Minimum Reporting Level
18. **ASTM** = ASTM International; SM - Standard Methods

## Primary List Of Drinking Water Contaminants

| Contaminant | MCL | Amount Detected | Contaminant | MCL | Amount Detected |
|---|---|---|---|---|---|
| **Bacteriological** | | | o-Dichlorobenzene | 600 ppb | ND |
| Total Coliform Bacteria | < 5 % | ND | p-Dichlorobenzene | 75 ppb | ND |
| Turbidity | TT | 0.01 to 0.18 NTU | 1,2-Dichloroethane | 5 ppb | ND |
| Fecal coliform and E. coli | 0 | ND | 1,1-Dichloroethylene | 7 ppb | ND |
| Fecal Indicators (enterococci or coliphage) | 0 | ND | cis-1,2-Dichloroethylene | 70 ppb | ND |
| Beta/photon emitters (mrem/yr) | 4 | ND | trans-1,2-Dichloroethylene | 100 ppb | ND |
| Alpha emitters (pCi/l) | 15 | ND | Dichloromethane | 5 ppb | ND |
| Combined radium (pCi/l) | 5 | ND | 1,2-Dichloropropane | 5 ppb | ND |
| Uranium | 30 pCi/L | ND | Di (2-ethylhexyl) adipate | 400 ppb | ND |
| **Inorganic Chemicals** | | | Di (2-ethylhexyl) phthalates | 6 ppb | ND |
| Antimony | 6 ppb | BMDL to 0.51 ppb | Dinoseb | 7 ppb | ND |
| Arsenic | 10 ppb | ND | Dioxin [2,3,7,8-TCDD] | 30 ppq | ND |
| Asbestos (MFL) | 7 | ND | Diquat | 20 ppb | ND |
| Barium | 2 ppm | 0.0107 to 0.0228 ppm | Endothall | 100 ppb | ND |
| Beryllium | 4 ppb | ND | Endrin | 2 ppb | ND |
| Bromate | 10 ppb | ND | Epichlorohydrin | TT | ND |
| Cadmium | 5 ppb | ND | Ethylbenzene | 700 ppb | ND |
| Chloramines | 4 ppm | ND | Ethylene dibromide | 50 ppt | ND |
| Chlorine | 4 ppm | 1.6 to 2.4 ppm | Glyphosate | 700 ppb | ND |
| Chlorine dioxide | 800 ppb | ND | HAA5 (haloacetic acids 5) | 60 ppb running average | 0 to 28.60 ppb |
| Chlorite | 1 ppm | ND | Heptachlor | 400 ppt | ND |
| Chromium | 100 ppb | BMDL to 3.4 ppb | Heptachlor epoxide | 200 ppt | ND |
| Copper | AL=1.3 ppm | See Lead and Copper Monitoring Table | Hexachlorobenzene | 1 ppb | ND |
| Cyanide | 200 ppb | ND | Hexachlorocyclopentadiene | 50 ppb | ND |
| Fluoride | 4 ppm | 0.64 to 0.88 ppm | Lindane | 200 ppt | ND |
| Lead | AL=15 ppb | See Lead and Copper Monitoring Table | Methoxychlor | 40 ppb | ND |
| Mercury | 2 ppb | ND | Oxamyl [Vydate] | 200 ppb | ND |
| Nitrate | 10 ppm | BMDL to 1.22 ppm | Pentachlorophenol | 1 ppb | ND |
| Nitrite | 1 ppm | ND | Picloram | 500 ppb | ND |
| Total Nitrate and Nitrite | 10 ppm | BMDL to 1.28 ppm | Polychlorinated biphenyls (PCBs) | 500 ppt | ND |
| Selenium | 50 ppb | BMDL to 0.55 ppb | Simazine | 4 ppb | ND |
| Thallium | 2 ppb | ND | Styrene | 100 ppb | ND |
| **Organic Chemicals** | | | Tetrachloroethylene | 5 ppb | BMDL to 2.83 ppb |
| Acrylamide | TT | ND | Toluene | 1 ppm | ND |
| Alachlor | 2 ppb | ND | TOC (Total Organic Carbon) | TT | 0.84 to 2.67 ppm |
| Atrazine | 3 ppb | ND | TTHMs [Total trihalomethanes] | 80 ppb running average | 0 to 44.4 ppb |
| Benzene | 5 ppb | ND | Toxaphene | 3 ppb | ND |
| Benzo(a)pyrene [PAHs] | 200 ppt | ND | 2,4,5-TP (Silvex) | 50 ppb | ND |
| Carbofuran | 40 ppb | ND | 1,2,4-Trichlorobenzene | 70 ppb | ND |
| Carbon tetrachloride | 5 ppb | ND | 1,1,1-Trichloroethane | 200 ppb | ND |
| Chlordane | 2 ppb | ND | 1,1,2-Trichloroethane | 5 ppb | ND |
| Chlorobenzene | 100 ppb | ND | Vinyl Chloride | 2 ppb | ND |
| 2,4-D | 70 ppb | ND | Xylenes | 10 ppm | ND |
| Dalapon | 200 ppb | ND | | | |
| Dibromochloropropane | 200 ppb | ND | | | |

## Unregulated Contaminants (UCMR - 4)

| Contaminant | CASRN | MRL | Amount Detected |
|---|---|---|---|
| **Metals: EPA Method 200.8, ASTM D5673-10,SM 3125** | | | |
| Germanium | 7440-56-4 | 0.3 ppb | ND |
| Manganese | 7439-96-5 | 0.4 ppb | BMDL to 5 ppb |
| **Pesticides and a Pesticide Manufacturing Byproduct: EPA Method 525.3** | | | |
| Alpha-hexachlorocyclohexane | 319-84-6 | 0.01 ppb | ND |
| Chlorpyrifos | 2921-88-2 | 0.03 ppb | ND |
| Dimethipin | 55290-64-7 | 0.2 ppb | ND |
| Ethoprop | 13194-48-4 | 0.03 ppb | ND |
| Oxyfluorfen | 42874-03-3 | 0.05 ppb | ND |
| Profenofos | 41198-08-7 | 0.3 ppb | ND |
| Tebuconazole | 107534-96-3 | 0.2 ppb | ND |
| Total Permethrin (cis- & trans-) | 52645-53-1 | 0.04 ppb | ND |
| Tribfos | 78-48-8 | 0.07 ppb | ND |
| **Alcohols and Semivolatile Chemicals: EPA Method 541 & 530** | | | |
| 1-Butanol | 71-36-3 | 2.0 ppb | ND |
| 2-Methoxyethanol | 109-86-4 | 0.4 ppb | ND |
| 2-Propen-1-ol | 107-18-6 | 0.5 ppb | ND |
| Butylated Hydroxyanisole | 25013-16-5 | 0.03 ppb | ND |
| O-Toluidine | 95-53-4 | 0.007 | ND |
| Quinoline | 91-22-5 | 0.02 | BMDL to 0.0252 ppb |
| **Brominated haleoacetic acid (HAA) disinfection by products groups** | | | |
| HAA5 (haloacetic acids 5) | 552.3 | N/A | 0 to 20.31 ppb |
| HAA6 (haloacetic acids 6) | 552.3 | N/A | 0 to 31.10 ppb |
| HAA9 (haloacetic acids 9) | 552.3 | N/A | 0 to 32.44 ppb |
| (Indicators) TOC | 5310 C | 1000 ppb | BMDL to 2400 ppb |
| (Indicators) Bromide | 300.0 | 20 ppb | BMDL to 44.7 ppb |
| **Organic Chemicals** | | | |
| Bromodichloromthane | 524.2 | 0.2 ppb | BMDL to 3.97 ppb |
| Chloroform | 524.2 | 0.4 ppb | BMDL to 41.2 ppb |

## Detected Contaminates Table

| Contaminant | Violation Y/N | Level Detected | Unit Measure-ment | MCLG | MCL | Possible Source Of Contamination |
|---|---|---|---|---|---|---|
| **Microbiological Contaminants** | | | | | | |
| **Turbidity** * | N | Values ranged from 0.01 To 0.18 NTU 100 % Of All Samples Met Turbidity Requirements | NTU | N/A | TT Less Than 5% Of All Filter Samples May Exceed .3 NTU | Soil runoff |
| **Total Coliform Bacteria (including fecal coliform and E. coli)** | N | 385 samples were collected with no detects. | Colonies | MCLG = 0 | MCL - presence of coliform bacteria in < 5% of monthly samples or if a routine sample and a follow up repeat sample are total coliform positive and one is also fecal coliform or e-coli positive | Human and animal fecal waste |
| *** Turbidity is the measure of the cloudiness of the water. We monitor it because it is a good indicator of water quality. High turbidity can hinder the effectiveness of disinfectants.** | | | | | | |
| **Inorganic Contaminants** | | | | | | |
| **Antimony** | N | Values ranged from BMDL to 0.51 ppb | ppb | 6 | 6 ppb | Discharge from petroleum refiners; fire retardants; ceramics; electronics; solder |
| **Barium** | N | Values ranged from 0.0107 to 0.02 ppm | ppm | 2 | 2 ppm | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits |
| **Chlorine** | N | Values ranged from 1.6 to 2.4 ppm Highest Running Annual Average is 2.1 ppm | ppm | MRDLG 4 | MRDL 4 ppm | Water Additive To Control Microbes |
| **Chromium** | N | Values ranged from BMDL to 3.4 ppb | ppb | 100 | 100 ppb | Discharge from steel and pulp mill; Erosion of natural deposits |
| **Fluoride** | N | Values ranged from 0.64 to 0.88 ppm | ppm | 4 | 4 ppm | Erosion Of Natural Deposits; Water Additive Which Promotes Strong Teeth; Discharge From Fertilizer And Aluminum Factories |
| **Nitrates** | N | Values ranged from BMDL to 1.28 ppm | ppm | 10 | 10 ppm | Runoff From fertilizer Use; Leaching From Septic Tanks, Sewage; Erosion Of Natural Deposits |
| **Nitrite and total Nitrates** | N | Values ranged from BMDL to 1.28 ppm | ppm | 10 | 10 ppm | Runoff From fertilizer Use; Leaching From Septic Tanks, Sewage; Erosion Of Natural Deposits |
| **Selenium** | N | Values ranged from BMDL to 0.55 ppb | ppb | 50 | 50 ppb | Discharge from petroleum and metal refiners; Erosion of natural deposits; Discharge from minerals |
| **Synthetic Organic Compounds -(Not Detected)** | | | | | | |
| **Volatile Organic Contaminants** | | | | | | |
| **HAA5** | N | Values ranged from 0 to 28.60 ppb Running averages ranged from 0 to 33 ppb | ppb | 0 | 60 ppb Running Annual Average | By Product Of Drinking Water Chlorination |
| **Tetrachloro-ethylene** | N | Values ranged from BMDL to 2.83 ppb with The Highest Running Average Of 2.16 ppb | ppb | 0 | 5 ppb Running Annual Average | Leaching From PVC Pipes; Discharge From Factories And Dry Cleaners |
| **Total Organic Carbons** | N | Values ranged from 0.42 to 1.85 ppm and Treatment 35% removal was obtained | ppm | NA | TT | Naturally Present In The Environment |
| **Total Trihalome-thanes TTHMs** | N | Values ranged from 0 to 44.4 ppb Running averages ranged from 0 to 39.63 ppb | ppb | 0 | 80 ppb Running Annual Average | By Product Of Drinking Water Chlorination |
| **Unregulated Contaminants - MCLs and MCLGs have not been established for these Contaminants** | | | | | | |
| **Bromodi-chloromethane** | N | Values ranged from BMDL to 3.97 ppb | ppb | NA | NA | Byproduct of chlorination |
| **HAA5 groups** | N | Values ranged from 0 to 20.31 ppb | ppb | 0 | 60 ppb Running Annual Average | Byproduct of chlorination |
| **HAA6 groups** | N | Values ranged from 0 to 31.1 ppb | ppb | NA | NA | Byproduct of chlorination |
| **HAA9 groups** | N | Values ranged from 0 to 32.44 ppb | ppb | NA | NA | Byproduct of chlorination |
| **Quinoline** | N | Values ranged from BMDL to 0.0252 ppb | ppb | NA | NA | Used as a pharmaceutical (anti-malarial) and flavoring agent; produced as a chemical intermediate; component of coal |
| **Chloroform** | N | Values ranged from BMDL to 41.2 ppb | ppb | NA | NA | Byproduct of chlorination |
| **Manganese** | N | Values ranged from BMDL to 5 ppb | ppb | NA | Secondary MCL of 0.05 mg/l | Naturally-occurring element; commercially available in combination with other elements and minerals; used in steel production, fertilizer, batteries and fireworks; drinking water and wastewater treatment chemical; essential nutrient |
| **Lead and Copper Monitoring Table** **The most recent sampling for lead and copper was July 2016** | | | | | | |
| **Lead** | N | Values ranged from Below Detection Limits To 1.58 ppb The 90th Percentile Was 0.534 ppb | ppb | 0 | AL = 15 ppb | Corrosion Of Household Plumbing Systems; Erosion Of Natural Deposits |
| **Copper** | N | Values ranged from From 0.00245 to 0.297 ppm The 90th Percentile Was 0.254 ppm | ppm | 1.3 | AL =1.3 ppm | Corrosion Of Household Plumbing Systems; Erosion Of Natural Deposits; Leaching From Wood Preservatives |