



Quality Across
the **Board**

Birmingham Water Works Board
2018 Annual Water Quality Report

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CCR: Government Mandated

The Birmingham Water Works Board (BWWB), like all water utilities across the U.S., is required by the EPA to send its customers a Consumer Confidence Report (CCR) each year.

In 1996, Congress amended the Safe Drinking Water Act (SDWA) by adding a provision requiring all community water systems to deliver to their customers an annual water quality report, which contains information on the water system's source water, levels of any detected contaminants, compliance with drinking water rules, and other educational information.

In 2017, as in years past, the BWWB met all state and federal regulations for water quality.

The BWWB has open meetings monthly at its main office located at 3600 First Avenue N., Birmingham, AL 35222. Meeting dates and times are posted on our website and at our main office. The Board welcomes public input and comments during its meetings. For questions please call 205-244-4000 or visit www.bwwb.org.

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Message from the General Manager

Dear Valued Customers:

The Birmingham Water Works Board (BWVB), like all other water utilities, is required by law to publish the Consumer Confidence Report (CCR) on an annual basis. This report demonstrates that BWVB meets and exceeds all federal drinking water regulations and standards.

Our employees work hard to meet and exceed drinking water standards and requirements not only because it's their job but because they take pride in what they do. Also, our employees strive to be the best in the industry, which is evident in the many awards BWVB has received from the Alabama Water Pollution Control Association, the Alabama Department of Environmental Management, the American Water Works Association, and the Centers for Disease Control for excellence in its filter plant operations.

Quality is at the heart of everything we do at the Birmingham Water Works because the availability of safe drinking water has always been the foundation for economic development and growth in the Birmingham Metropolitan Area. Safe drinking water is essential to residential customers, hotels, restaurants, manufacturing, commercial and retail businesses as well as public health and safety. Without it, hospitals and health care agencies cannot provide proper health care services.

The current challenge facing most governmental entities is an aging infrastructure (streets, bridges, water mains, etc.) and securing funds for improvements. As general manager, I am responsible for overseeing our capital budget which provides funding to make much needed repairs, improvements and upgrades at BWVB's water treatment facilities that helps meet federal regulations. The Board of Directors and management recognize the need to make appropriate financial investments in our infrastructure and to be good stewards of the funds that our customers provide.

We are proud to serve each residential customer, business entity and local municipality with quality drinking water directly from the tap.

Sincerely,



Mac Underwood
General Manager
Birmingham Water Works Board

FAQ

What is the Consumer Confidence Report?

The CCR is an annual report – on the water quality of a particular water system such as the BWWB – required by the Environmental Protection Agency (EPA). The report details and outlines contaminants and their levels in drinking water.

Why am I getting this report?

The BWWB is federally mandated by the EPA to provide this information to you. The Alabama Department of Environmental Management (ADEM) enforces these rules for the EPA. Regulated drinking water substances that were detected during the 2017 calendar year are provided in the report.

Where can I get additional copies of this report?

You may obtain additional copies of the CCR in person at the BWWB's Customer Service Center, by mail (upon request), or online by visiting www.bwwb.org. For questions concerning the CCR, please call **Jarrod Shotts** at **205-244-4206**.

Why authorities regulate contaminant levels?

In order to ensure that tap water is safe to drink, the EPA and ADEM prescribe regulations that limit the amount of certain substances in water provided by public water systems.

For whom is this report produced?

The CCR is produced for customers and wholesalers of the BWWB. It provides water quality data that confirms regulatory compliance of our water.

How much does it cost to receive this report?

This report is free of charge to all customers and stakeholders of the BWWB.

MISSION

The BWWB is committed to providing the highest quality water and service to our customers and our entire service area. As a concerned corporate citizen, we are responsive to the needs of the entire community and strive to maintain, preserve, and conserve our precious water resources in order to ensure adequate water quality and supply for future generations.

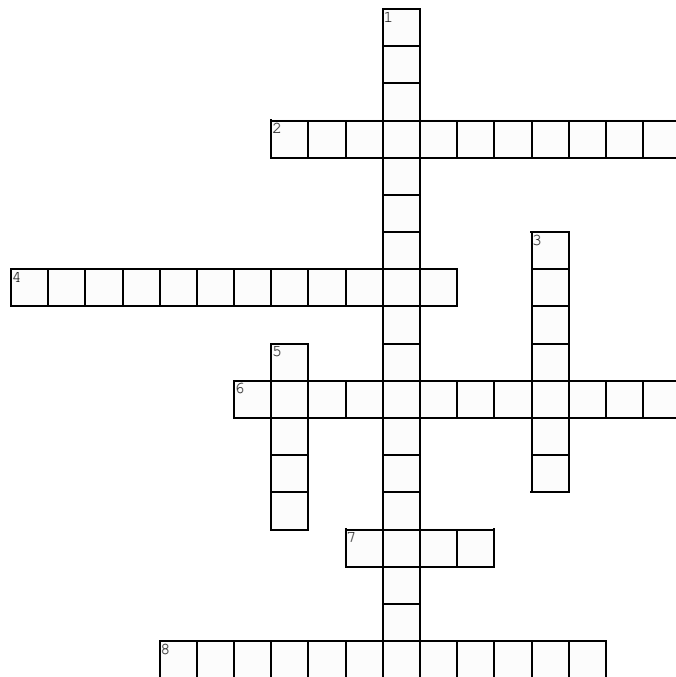
For Your Health

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.

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 (1-800-426-4791)**. For further information, contact the **Jefferson County Health Department** at **205-933-9110**.



See clues below to complete puzzle.

BWWB Water Sources

- Black Warrior Basin
 - Sipsy Fork
 - Mulberry Fork
 - Inland lake/Blackburn Fork
- Cahaba Basin
 - Big Cahaba River
 - Little Cahaba River
 - Lake Purdy

System Information

- Average gallons of water delivered daily in 2017: 101.5 MGD
- People Served: 600,000*
- Square miles in service area: 759*
- Miles of water main (pipes) in system: 4,000*

*Approximations

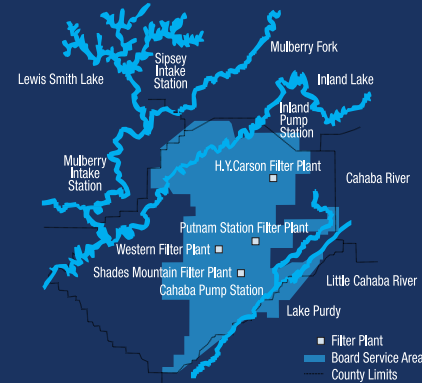
Source Water Assessment

A source water assessment has been updated for the water system. It is available for review at the BWWB's main office during normal business hours. The following is a list of the sources of raw water along with the susceptibility rating of the contaminant source and the contaminant sources:

- Inland Lake - low susceptibility (septic tanks); moderate susceptibility (boat launch)
- Cahaba River - moderate susceptibility (highways, secondary roads, and railroad)
- Mulberry Fork - moderate susceptibility (septic tanks); high susceptibility (strip mining, bridges, and highways)
- Sipsy Fork - moderate susceptibility (storm water runoff)

The BWWB is making a maximum effort to physically protect all of our critical assets.

SERVICE AREA MAP



Across

2. Lake Purdy is part of what BWWB water source?

4. The Environmental Protection Agency's Safe Drinking _____ is 1-800-426-4791.

6. What do the boxes represent on the Service Area Map?

7. How many counties does BWWB serve?

8. Who is the BWWB's general manager?

Down

1. What is a required process intended to reduce the level of a contaminant in drinking water?

3. What step of the treatment process places water in a clearwell?

5. What is water delivered through?

Answers on next page.



QUALITY ACROSS THE **BOARD**:

After treatment, the BWWB distributes water to approximately 600,000 people using an extensive system of pipes that measures more than 4,000 miles and extends into parts of five counties (Jefferson, Shelby, St. Clair, Walker, and Blount) in a 759-square mile service area.

That network of pipes supplies an average of 101.5 million gallons of water per day, producing some of the highest quality water in the United States to residential and commercial customers.

The BWWB's water infrastructure system is constantly being maintained and upgraded to ensure efficient, reliable delivery of **QUALITY** water to our ever-growing population.

Crossword Answer Key:

Across:

- 2- Cahaba Basin
- 4- Water Hotline
- 6- Filter Plants
- 7- Five
- 8- Mac
Underwood

Down:

- 1- Treatment
Technique
- 3- Storage
- 5- Pipes

"Neither snow nor rain nor heat nor gloom of night stays these couriers from the swift completion of their appointed rounds" is a phrase that honors the U. S. Postal Service.

In the same manner, the BWWB filter plant teams are on-duty 24 hours a day, seven days a week, 365 days a year. Teams work in rain, sleet, and snow because the community depends on a constant supply of clean and clear water every day.

Customer Resources:

CUSTOMER SERVICE, BILLING & LEAKS:

205-244-4000

WATER QUALITY:

205-244-4381

H2O FOUNDATION:

205-244-4390



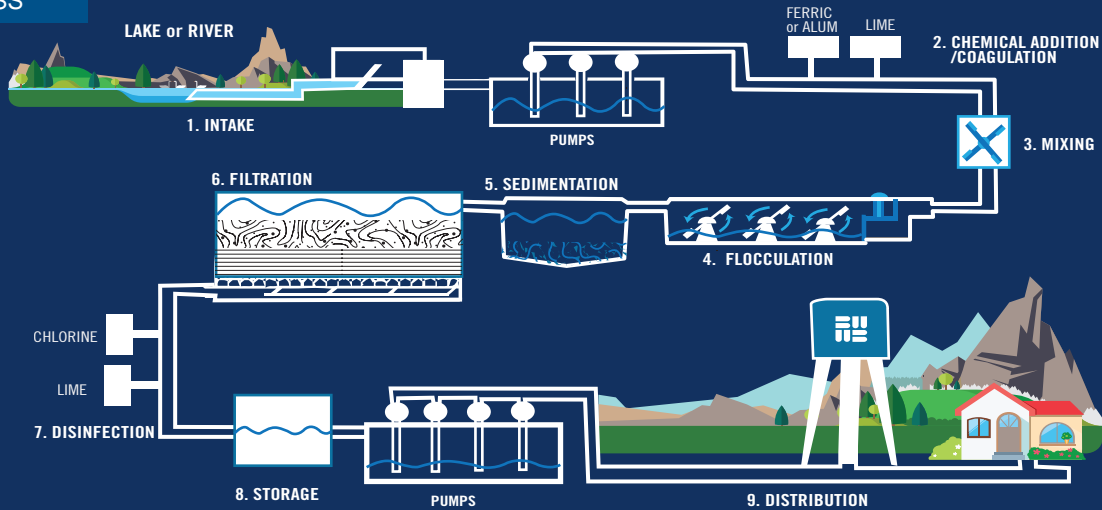
Cover emergency home repairs with HomeServe. Plumbing repair plans include:

Exterior Water Service Line Coverage,
Exterior Sewer/Septic Line Coverage,
as well as Interior Plumbing and
Draining System Coverage.

www.bwwbcoverageplans.com

1-855-709-6268





The Water Treatment Process:

- 1. Intake** - Water is taken from the source. Fish, plants and other debris are screened out and water is drawn into the treatment plant.
- 2. Chemical Addition/Coagulation** - Chemicals are added to cause particles in the water to stick together.
- 3. Mixing** - Water and chemicals are rapidly mixed.
- 4. Flocculation** - The larger particles are called floc.
- 5. Sedimentation** - The water and floc particles flow into a sedimentation basin. The floc then settles to the bottom and is removed from the water.
- 6. Filtration** - Water flows through filters. The filters are made of layers of anthracite, sand, and gravel.
- 7. Disinfection** - A small amount of chlorine or other disinfecting chemical is added to kill any remaining germs and keep the water safe as it travels to your house.
- 8. Storage** - Water is placed in a closed tank or clearwell.
- 9. Distribution** - Water is transported to your home. The BWWB delivered an average of 101.5 million gallons of water per day in 2017.

DEFINITIONS & ABBREVIATIONS

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

Contaminant - Any substance other than water. Note that contaminants, as defined, include dissolved minerals, purifying and dental health promotion additives.

Locational Running Annual Average (LRAA) - The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters.

Maximum Contaminant Level (MCL) - 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 (MCLG) - 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 (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.

Maximum Residual Disinfectant Level Goal (MRDLG) - The level of 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.

Running Annual Average (RAA) - Compliance period where an average of four consecutive quarterly samples are used.

Total Haloacetic Acids (HAA₅) - By-product of drinking water chlorination.

Total Trihalomethanes (TTHM) - By-product of drinking water chlorination.

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

Turbidity (NTU) - Measure of the clarity of water as it relates to its particle content.

Variance and exemptions - ADEM or EPA permission not to meet an MCL or treatment technique under certain conditions.

ADEM - Alabama Department of Environmental Management

CDC - Centers for Disease Control

EPA - Environmental Protection Agency

°F - Degrees Fahrenheit

MGD - Million Gallons per Day

mg/L - Milligrams per liter or parts per million (ppm)

µS/cm - Microsiemens per centimeter

N/A - Not Applicable

ND - Not Detected

NTU - Nephelometric Turbidity Unit

pCi/L - Picocuries per liter

SU - Standard Unit

TOC - Total Organic Carbon

TON - Threshold Odor Number

µg/L - Micrograms per liter or parts per billion (ppb)

Quick Fact:

BWWB is capable of treating nearly 190 million gallons of water per day. The system covers 759 square miles and distributes water through approximately 4,000 miles of pipe.



K T B T U W E C O W B N S S S H H Q H E Z M W Y A Y T E G H
 V W N U S K B U A P V E F D B U K E E U T N L D K Y D C E E
 O R G E A X K H J H D C R L S V V C D I A P S R Y R S R J A
 B K K T M B B J Y I A A I R H Z P Y B W K S W U D P Z U Q L
 Q C N D T T L C M H D B R T E G U I S Q G W H P L F W O D T
 W I U K L J A E N N M B A D R T H U P M A Y X E K P E S H H
 B N F S T K N E A Q J W Z X Q E A K G E J V Z K I O Z P R Y
 J H S N T T N T R P R W T K L A V D K C S H P A X L E U J R
 W S A Z A O S U A T E B V B W J U I R R B O K L U M I T Q R
 T L M T R I M Y F U T M V N Q D Y W R Q N M E D A O Z J Q B
 P A I P E Y L E F L A Q I M T A N K S D C F I L T E R N V S
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 V R D I N O V F A P F S Z V J X J R N A E L C I S S O R C A
 B N Z B N L K N E J E S I D J U I O D Q V K T S Q M R T L P
 E P A B P H K V Z D F U D P C N Y M T X H Y K K W V Q I M A

Search above for the words listed below.

ACROSS

ADEM

BOARD

BWWB

CAHABA

HEALTHY

CLEAN

CUSTOMER

DISTRIBUTION

EPA

FILTER

POND

INTAKE

LAKE PURDY

LIME

PIPES

PLANT

SOURCE

PUMP

QUALITY

REPORT

RIVER

TREATMENT

WATER

STANDARDS

STREAM

TANKS

TAP

CHLORINE

SEDIMENTATION

2017 Chemical Analysis

Standard List Of Primary Drinking Water Contaminants for CCR
 Primary Drinking Water Standards - Limits are set based on public health effects.

Bacteriological

	MCL	Distribution System Microbiological Substance (Regulated)
Total Coliform Bacteria	Presence of Coliform bacteria is < 5% of monthly samples	The highest percentage of bacteria in the distribution system for one month was 1.25% (4 out of 319 samples). All locations that tested total coliform - positive were tested for <i>E. coli</i> . <i>E. coli</i> was not detected in any of these samples. All locations that tested total coliform - positive were resampled and all resamples were negative.

Inorganic Chemicals and Radiological

Parameters (mg/L)	MCL	Carson Highest	Putnam Highest	Shades Mountain Highest	Western Highest
Antimony	0.006	ND	ND	ND	ND
Arsenic	0.01	ND	ND	ND	ND
Barium	2	0.014	0.014	0.024	0.021
Beryllium	0.004	ND	ND	ND	ND
Cadmium	0.005	ND	ND	ND	ND
Chlorine	MRDL = 4	2.49	3.26	2.43	2.10
Chromium	0.1	ND	ND	ND	ND
Copper	AL = 1.3	0.002	ND	0.036	0.002
Cyanide	0.2	ND	ND	ND	ND
Fluoride	4	0.66	0.66	0.67	0.54
Gross Alpha (pCi/L)	15	ND	ND	ND	ND
Lead	AL = 0.015	ND	ND	ND	ND
Mercury	0.002	ND	ND	ND	ND
Nitrate as N	10	0.33	0.33	0.79	0.77
Nitrite as N	1	ND	ND	ND	ND
Radium 226 (pCi/L)	5	ND	0.2	ND	ND
Radium 228 (pCi/L)	5	ND	ND	ND	ND
Selenium	0.05	ND	ND	ND	ND
Thallium	0.002	ND	ND	ND	ND
Total Nitrate/Nitrite	10	0.33	0.33	0.79	0.77
Turbidity (NTU)	0.3 (TT)	0.09	0.27	0.16	0.44

Regulated Organic Chemicals					
Parameters (µg/L)	MCL	Carson Highest	Putnam Highest	Shades Mountain Highest	Western Highest
1,1 Dichloroethylene	7	ND	ND	ND	ND
1,1,1 Trichloroethane	200	ND	ND	ND	ND
1,1,2 Trichloroethane	5	ND	ND	ND	ND
1,2 Dichloroethane	5	ND	ND	ND	ND
1,2 Dichloropropane	5	ND	ND	ND	ND
1,2,4-Trichlorobenzene	70	ND	ND	ND	ND
2,4,5-TP (Silvex)	50	ND	ND	ND	ND
2,4-D	70	ND	ND	ND	ND
Alachlor	2	ND	ND	ND	ND
Atrazine	3	ND	ND	ND	ND
Benzene	5	ND	ND	ND	ND
Benzo(a)pyrene	0.2	ND	ND	ND	ND
Carbofuran	40	ND	ND	ND	ND
Carbon Tetrachloride	5	ND	ND	ND	ND
Chlordane	2	ND	ND	ND	ND
Chlorobenzene	100	ND	ND	ND	ND
Cis-1,2 Dichloroethylene	70	ND	ND	ND	ND
Dalapon	200	ND	ND	ND	ND
Di (2-Ethylhexyl) Adipate	400	ND	ND	ND	ND
Di (2-Ethylhexyl) Phthalate	6	ND	ND	ND	ND
Dibromochloropropane	0.2	ND	ND	ND	ND
Dichloromethane	5	ND	ND	ND	ND
Dinoseb	7	ND	ND	ND	ND
Diquat	20	ND	ND	ND	ND
Endothall	100	ND	ND	ND	ND
Endrin	2	ND	ND	ND	ND
Ethylbenzene	700	ND	ND	ND	ND
Ethylene Dibromide (EDB)	0.05	ND	ND	ND	ND
Glyphosate	700	ND	ND	ND	ND
Heptachlor	0.4	ND	ND	ND	ND
Heptachlor Epoxide	0.2	ND	ND	ND	ND
Hexachlorobenzene	1	ND	ND	ND	ND
Hexachlorocyclopentadiene	50	ND	ND	ND	ND
Lindane	0.2	ND	ND	ND	ND
Methoxychlor	40	ND	ND	ND	ND
o-Dichlorobenzene	600	ND	ND	ND	ND

Regulated Organic Chemicals					
Parameters (µg/L)	MCL	Carson Highest	Putnam Highest	Shades Mountain Highest	Western Highest
Oxamyl (Vydate)	200	ND	ND	ND	ND
PCB, 1016	0.5	ND	ND	ND	ND
PCB, 1221	0.5	ND	ND	ND	ND
PCB, 1232	0.5	ND	ND	ND	ND
PCB, 1242	0.5	ND	ND	ND	ND
PCB, 1248	0.5	ND	ND	ND	ND
PCB, 1254	0.5	ND	ND	ND	ND
PCB, 1260	0.5	ND	ND	ND	ND
p-Dichlorobenzene	75	ND	ND	ND	ND
Pentachlorophenol	1	ND	ND	ND	ND
Picloram	500	ND	ND	ND	ND
Simazine	4	ND	ND	ND	ND
Styrene	100	ND	ND	ND	ND
Tetrachloroethylene	5	ND	ND	ND	ND
Toluene	1000	ND	ND	ND	ND
Total Haloacetic Acids	60	30.2	12.3	32.1	26.0
Total Trihalomethanes	80	23.8	18.8	31.5	34.6
Toxaphene	3	ND	ND	ND	ND
Trans-1,2 Dichloroethylene	100	ND	ND	ND	ND
Trichloroethylene	5	ND	ND	ND	ND
Vinyl Chloride	2	ND	ND	ND	ND
Xylenes	10,000	ND	ND	ND	ND
Running Annual Average for System Wide Stage 2 Sites					
	MCL	RAA			
Total Trihalomethanes (µg/L)	System-wide Running Annual Average (RAA): 80 µg/L	47.7			
Total Haloacetic Acids (µg/L)	System-wide Running Annual Average (RAA): 60 µg/L	29.5			
TOC Step Removal for Filter Plants					
	MCL	Carson	Putnam	Shades Mountain	Western
Total Organic Carbon (TOC)	4 (TT)	1.00	1.00	2.00	1.00

2017 Chemical Analysis

2017 Chemical Analysis												
	MCLG	MCL	Regulated Drinking Water Contaminants for CCR Primary Drinking Water Standards - Limits are set based on public health effects.								Major Sources in Drinking Water	
Total Coliform Bacteria	0	Presence of Coliform bacteria is < 5% of monthly samples	The highest percentage of bacteria in the distribution system for one month was 1.25% (4 out of 319 samples). All locations that tested total coliform - positive were tested for <i>E. coli</i> . <i>E. coli</i> was not detected in any of these samples. All locations that tested total coliform - positive were resampled and all resamples were negative.								Naturally present in the environment. Human and animal fecal waste	
Parameters (mg/L)	MCLG	MCL	Carson		Putnam		Shades Mountain		Western		Major Sources in Drinking Water	
			Highest	Range	Highest	Range	Highest	Range	Highest	Range		
Antimony	0.006	0.006	ND	ND	ND	ND	ND	ND	ND	ND	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder	
Arsenic	0	0.01	ND	ND	ND	ND	ND	ND	ND	ND	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes	
Barium	2	2	0.014	0.013 - 0.014	0.014	0.012 - 0.014	0.024	0.023 - 0.024	0.021	0.019 - 0.021	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits	
Beryllium	0.004	0.004	ND	ND	ND	ND	ND	ND	ND	ND	Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace and defense industries	
Cadmium	0.005	0.005	ND	ND	ND	ND	ND	ND	ND	ND	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints	
Chlorine	MRDLG = 4	MRDL = 4	2.49	1.62 - 2.49	3.26	1.09 - 3.26	2.43	1.55 - 2.43	2.10	1.50 - 2.10	Water additive used to control microbes	
Chromium	0.1	0.1	ND	ND	ND	ND	ND	ND	ND	ND	Discharge from steel and pulp mills; erosion of natural deposits	
Copper	1.3	AL = 1.3	0.002	0.002	ND	ND	0.036	0.023 - 0.036	0.002	0.002	Corrosion of household plumbing systems; erosion of natural deposits	
Cyanide	0.2	0.2	ND	ND	ND	ND	ND	ND	ND	ND	Discharge from steel/ metal factories; discharge from plastic and fertilizer factories	
Fluoride	4	4	0.66	0.61 - 0.66	0.66	0.58 - 0.66	0.67	0.64 - 0.67	0.54	ND - 0.54	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories	
Gross Alpha (pCi/L)	0	15	ND	ND	ND	ND	ND	ND	ND	ND	Erosion of natural deposits of certain minerals that are radioactive and may emit a form of radiation known as alpha radiation	
Lead	0	AL = 0.015	ND	ND	ND	ND	ND	ND	ND	ND	Corrosion of household plumbing; erosion of natural deposits	
Mercury	0.002	0.002	ND	ND	ND	ND	ND	ND	ND	ND	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills and croplands	
Nitrate as N	10	10	0.33	ND - 0.33	0.33	ND - 0.33	0.79	0.31 - 0.79	0.77	0.28 - 0.77	Runoff from fertilizer; leaching from septic tanks and sewage; erosion of natural deposits	
Nitrite as N	1	1	ND	ND	ND	ND	ND	ND	ND	ND	Runoff from fertilizer; leaching from septic tanks and sewage; erosion of natural deposits	
Radium 226 (pCi/L)	0	5	ND	ND	0.2	0.2	ND	ND	ND	ND	Erosion of natural deposits	
Radium 228 (pCi/L)	0	5	ND	ND	ND	ND	ND	ND	ND	ND	Erosion of natural deposits	
Selenium	0.05	0.05	ND	ND	ND	ND	ND	ND	ND	ND	Discharge from petroleum refineries; erosion of natural deposits; discharge from mines	
Thallium	0.0005	0.002	ND	ND	ND	ND	ND	ND	ND	ND	Leaching from ore-processing sites; discharge from electronics, glass and drug factories	
Total Nitrate/Nitrite	10	10	0.33	ND - 0.33	0.33	ND - 0.33	0.79	0.31 - 0.79	0.77	0.28 - 0.77	Runoff from fertilizer; leaching from septic tanks and sewage; erosion of natural deposits	
Turbidity (NTU)	N/A	0.3 (TT)	0.09	0.01 - 0.09	0.27	0.02 - 0.27	0.16	0.01 - 0.16	0.44	0.01 - 0.44	Soil runoff	
Parameters (µg/L)	Regulated Organic Chemicals										Major Sources in Drinking Water	
1,1 Dichloroethylene	7	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	Discharge from industrial chemical factories
1,1,1 Trichloroethane	200	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	Discharge from metal degreasing sites and other factories
1,1,2 Trichloroethane	3	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	Discharge from industrial chemical factories
1,2 Dichloroethane	0	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	Discharge from industrial chemical factories
1,2 Dichloropropane	0	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	Discharge from industrial chemical factories

2017 Chemical Analysis												
	MCLG	MCL	Carson		Putnam		Shades Mountain		Western			
			Highest	Range	Highest	Range	Highest	Range	Highest	Range		
Parameters (µg/L)	Regulated Organic Chemicals										Major Sources in Drinking Water	
1,2,4-Trichlorobenzene	70	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	Discharge from textile-finishing factories
2,4,5-TP (Silvex)	50	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	Residue of banned herbicide
2,4-D	70	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	Runoff from herbicide used on row crops
Alachlor	0	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	Runoff from herbicide used on row crops
Atrazine	3	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	Runoff from herbicide used on row crops
Benzene	0	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	Discharge from factories; leaching from gas storage tanks and landfills
Benzo(a)pyrene	0	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	Leaching from linings of water storage tanks and distribution lines
Carbofuran	40	40	ND	ND	ND	ND	ND	ND	ND	ND	ND	Leaching of soil fumigant used on rice and alfalfa
Carbon Tetrachloride	0	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	Discharge from chemical plants and other industrial activities
Chlordane	0	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	Residue of banned termiticide
Chlorobenzene	100	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	Discharge from chemical and agricultural chemical factories
Cis-1,2 Dichloroethylene	70	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	Discharge from industrial chemical factories
Dalapon	200	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	Runoff from herbicide used on rights of way
Di (2-Ethylhexyl) Adipate	400	400	ND	ND	ND	ND	ND	ND	ND	ND	ND	Discharge from chemical factories
Di (2-Ethylhexyl) Phthalate	0	6	ND	ND	ND	ND	ND	ND	ND	ND	ND	Discharge from rubber and chemical factories
Dibromochloropropane	0	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	Runoff/ leaching from soil fumigant used on soybeans, cotton, pineapples and orchards
Dichloromethane	0	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	Discharge from pharmaceutical and chemical factories
Dinoseb	7	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	Runoff from herbicide used on soybeans and vegetables
Diquat	20	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	Runoff from herbicide use
Endothal	100	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	Runoff from herbicide use
Endrin	2	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	Residue of banned insecticide
Ethylbenzene	700	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	Discharge from petroleum refineries
Ethylene Dibromide (EDB)	0	0.05	ND	ND	ND	ND	ND	ND	ND	ND	ND	Discharge from petroleum refineries
Glyphosate	700	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	Runoff from herbicide use
Heptachlor	0	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	Residue of banned termiticide
Heptachlor Epoxide	0	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	Breakdown of heptachlor
Hexachlorobenzene	0	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	Discharge from metal refineries and agricultural chemical factories
Hexachlorocyclopentadiene	50	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	Discharge from chemical factories
Lindane	0.2	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	Runoff/ leaching from insecticide used on cattle, lumber, gardens
Methoxychlor	40	40	ND	ND	ND	ND	ND	ND	ND	ND	ND	Runoff/ leaching from insecticide used on fruits, vegetables, alfalfa, livestock
o-Dichlorobenzene	600	600	ND	ND	ND	ND	ND	ND	ND	ND	ND	Discharge from industrial chemical factories
Oxamyl (Vydate)	200	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	Runoff/ leaching from insecticide used on apples, potatoes, and tomatoes
PCB, 1016	0	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	Runoff from landfills; discharge of waste chemicals
PCB, 1221	0	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	Runoff from landfills; discharge of waste chemicals
PCB, 1232	0	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	Runoff from landfills; discharge of waste chemicals
PCB, 1242	0	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	Runoff from landfills; discharge of waste chemicals
PCB, 1248	0	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	Runoff from landfills; discharge of waste chemicals
PCB, 1254	0	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	Runoff from landfills; discharge of waste chemicals
PCB, 1260	0	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	Runoff from landfills; discharge of waste chemicals
p-Dichlorobenzene	75	75	ND	ND	ND	ND	ND	ND	ND	ND	ND	Discharge from industrial chemical factories
Pentachlorophenol	0	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	Discharge from wood preserving factories
Picloram	500	500	ND	ND	ND	ND	ND	ND	ND	ND	ND	Herbicide runoff
Simazine	4	4	ND	ND	ND	ND	ND	ND	ND	ND	ND	Herbicide runoff
Styrene	100	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	Discharge from rubber and plastic factories; leaching from landfills
Tetrachloroethylene	0	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	Leaching from PVC pipes; discharge from factories and dry cleaners

Toluene	1000	1000	ND	ND	ND	ND	ND	ND	ND	ND	Discharge from petroleum factories
Total Haloacetic Acids	N/A	60	30.2	19.5 - 30.2	12.3	11.0 - 12.3	32.1	15.0 - 32.1	26.0	17.6 - 26.0	By-product of drinking water chlorination
Total Trihalomethanes	N/A	80	23.8	14.1 - 23.8	18.8	10.3 - 18.8	31.5	14.6 - 31.5	34.6	24.2 - 34.6	By-product of drinking water chlorination
Toxaphene	0	3	ND	ND	ND	ND	ND	ND	ND	ND	Runoff/ leaching from insecticide used on cotton and cattle
Trans-1,2 Dichloroethylene	100	100	ND	ND	ND	ND	ND	ND	ND	ND	Discharge from industrial chemical factories
Trichloroethylene	0	5	ND	ND	ND	ND	ND	ND	ND	ND	Discharge from metal degreasing sites and other factories
Vinyl Chloride	0	2	ND	ND	ND	ND	ND	ND	ND	ND	Leaching from PVC piping; discharge from plastic factories
Xylenes	10,000	10,000	ND	ND	ND	ND	ND	ND	ND	ND	Discharge from petroleum factories; discharge from chemical factories

Running Annual Average for System Wide Stage 2 Sites

	MCLG	MCL	RAA	Major Sources in Drinking Water						
Total Trihalomethanes (µg/L)	N/A	System-wide Running Annual Average (RAA): 80 µg/L	47.7	By-product of drinking water chlorination						
Total Haloacetic Acids (µg/L)	N/A	System-wide Running Annual Average (RAA): 60 µg/L	29.5	By-product of drinking water chlorination						

TOC Step Removal for Filter Plants

TOC Percent Removal			Carson	Putnam	Shades Mountain	Western	Major Sources in Drinking Water
Total Organic Carbon (TOC)	N/A	4 (TT)	1.00	1.00	2.00	1.00	Naturally present in the environment

Secondary Drinking Water Standards

Limits are set based on cosmetic or aesthetic effects.

Parameters (mg/L)	MCLG	MCL	Carson		Putnam		Shades Mountain		Western		Major Sources in Drinking Water
			Highest	Range	Highest	Range	Highest	Range	Highest	Range	
Aluminum	N/A	0.05 - 0.2	0.017	0.013 - 0.017	0.013	0.009 - 0.013	0.026	0.026	0.022	0.016 - 0.022	By-product of drinking water treatment
Bromide	N/A	Monitored	ND	ND	ND	ND	ND	ND	0.07	ND - 0.07	
Calcium	N/A	Monitored	16.1	12.8 - 16.1	18.9	12.8 - 18.9	36.2	23.3 - 36.2	27.1	18.4 - 27.1	
Carbon Dioxide	N/A	Monitored	1.74	ND - 1.74	ND	ND	1.74	ND - 1.74	ND	ND	
Chloride	N/A	250	4.23	4.03 - 4.23	4.04	3.77 - 4.04	7.42	6.23 - 7.42	5.64	4.70 - 5.64	
Copper	N/A	1	0.002	0.002	ND	ND	0.036	0.023 - 0.036	0.002	0.002	
Foaming Agent	N/A	0.5	ND	ND	ND	ND	ND	ND	ND	ND	
Iron	N/A	0.3	ND	ND	ND	ND	ND	ND	ND	ND	
Langlier Index (LSI)	N/A	Non-corrosive	-1.16	-1.70 to -1.16	-0.278	-0.649 to -0.278	-0.749	-0.808 to -0.749	-0.213	-0.362 to -0.213	
Magnesium	N/A	Monitored	3.40	3.11 - 3.40	3.42	2.32 - 3.42	8.94	4.34 - 8.94	4.42	2.56 - 4.42	
Manganese	N/A	0.05	ND	ND	ND	ND	ND	ND	ND	ND	
pH (SU)	N/A	6.5 - 8.5	8.05	7.56 - 8.05	8.98	8.56 - 8.98	7.85	7.62 - 7.85	8.53	8.32 - 8.53	
Potassium	N/A	Monitored	1.63	1.27 - 1.63	1.25	1.21 - 1.25	1.45	1.40 - 1.45	1.73	1.57 - 1.73	
Silver	N/A	0.1	ND	ND	ND	ND	ND	ND	ND	ND	
Sodium	N/A	Monitored	1.72	1.34 - 1.72	1.39	1.24 - 1.39	9.28	6.00 - 9.28	2.88	1.62 - 2.88	
Specific Conductivity (µS/cm)	N/A	Monitored	152	128 - 152	158	142 - 158	293	243 - 293	196	162 - 196	
Sulfate	N/A	250	25.8	20.5 - 25.8	29.1	28.0 - 29.1	49.1	44.5 - 49.1	39.6	30.4 - 39.6	
TDS	N/A	500	95.0	77.5 - 95.0	103	82.5 - 103	180	148 - 180	133	97.5 - 133	
Temperature (°F)	N/A	Monitored	61	52 - 61	60	52 - 60	77	59 - 77	66	55 - 66	
Total Alkalinity	N/A	Monitored	34	20 - 34	36	26 - 36	72	48 - 72	42	36 - 42	
Total Hardness	N/A	Monitored	60	44 - 60	74	52 - 74	124	92 - 124	86	72 - 86	
Zinc	N/A	5	ND	ND	ND	ND	0.010	0.005 - 0.010	ND	ND	

Color, APHA (color units)	N/A	15 color units	ND	ND	ND	ND	ND	ND	ND	ND	
Odor (TON)	N/A	3 TON	ND	ND	ND	ND	ND	ND	ND	ND	

Monitoring

Nickel	N/A	0.1	ND	ND	ND	ND	0.003	0.002 - 0.003	ND	ND	Discharge from nickel smelting/refining and steelworks industries
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Metolachlor	0	Monitored	ND	ND	ND	ND	ND	ND	ND	ND
Metribuzin	0	Monitored	ND	ND	ND	ND	ND	ND	ND	ND
Monobromoacetic Acid	N/A	Monitored	ND	ND	ND	ND	ND	ND	ND	ND
Monochloroacetic Acid	70	Monitored	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	0	Monitored	ND	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	0	Monitored	ND	ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene	0	Monitored	ND	ND	ND	ND	ND	ND	ND	ND
o-Chlorotoluene	0	Monitored	ND	ND	ND	ND	ND	ND	ND	ND
p-Chlorotoluene	0	Monitored	ND	ND	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	0	Monitored	ND	ND	ND	ND	ND	ND	ND	ND
Propachlor	0	Monitored	ND	ND	ND	ND	ND	ND	ND	ND
Propoxur	0	Monitored	ND	ND	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	0	Monitored	ND	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	0	Monitored	ND	ND	ND	ND	ND	ND	ND	ND
Unregulated Organic Substances Detected										
Bromodichloromethane	0	Monitored	4.79	3.10 - 4.79	4.32	2.41 - 4.32	8.91	4.27 - 8.91	6.40	5.17 - 6.40
Chloroform	70	Monitored	19.0	10.5 - 19.0	13.8	7.77 - 13.8	20.4	9.14 - 20.4	27.6	19.1 - 27.6
Dibromochloromethane	60	Monitored	ND	ND	1.04	ND - 1.04	2.19	1.16 - 2.19	1.11	ND - 1.11
Dibromoacetic Acid	N/A	Monitored	2.00	ND - 2.00	2.00	ND - 2.00	ND	ND	1.20	ND - 1.20
Dichloroacetic Acid	0	Monitored	19.6	12.0 - 19.6	9.27	7.00 - 9.27	21.9	11.0 - 21.9	17.0	11.3 - 17.0
Trichloroacetic Acid	20	Monitored	10.6	6.00 - 10.6	3.70	2.00 - 3.70	10.2	4.00 - 10.2	9.00	6.30 - 9.00

- The most recent testing for Lead and Copper Compliance within the distribution system was from June - September 2016. This testing was done in accordance with applicable regulations. The 90th percentile lead sample was 0.001 mg/L. No lead samples exceeded the action level. The 90th percentile copper sample was 0.186 mg/L. No copper samples exceeded the action level.
- 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 Birmingham Water Works Board (BWVB) 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 www.epa.gov/safewater/lead.

- The BWVB uses acrylamide based polymers in its solids handling operations.
- 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.

2017 Chemical Analysis

Stage 2 Sites

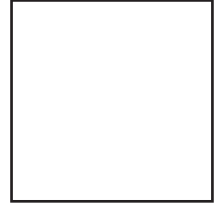
Sites	Monochloroacetic Acid (µg/L)		Monobromoacetic Acid (µg/L)		Dichloroacetic Acid (µg/L)		Trichloroacetic Acid (µg/L)		Dibromoacetic Acid (µg/L)		Total Haloacetic Acids (HAAs) (µg/L)		LRAA Total Haloacetic Acids (HAAs) (µg/L)
	Highest	Range	Highest	Range	Highest	Range	Highest	Range	Highest	Range	Highest	Range	Average per Site
Carson	ND	ND	ND	ND	19.6	12.0 - 19.6	10.6	6.00 - 10.6	2.00	ND - 2.00	30.2	19.5 - 30.2	22.6
Parade Gas Station Hwy 75	ND	ND	ND	ND	21.2	14.0 - 21.2	12.4	7.00 - 12.4	2.00	ND - 2.00	33.5	23.0 - 33.5	27.0
Moody Police Dept	ND	ND	ND	ND	22.0	6.72 - 22.0	24.3	14.9 - 24.3	ND	ND	39.0	24.6 - 39.0	33.7
Putnam	ND	ND	ND	ND	9.27	7.00 - 9.27	3.70	2.00 - 3.70	2.00	ND - 2.00	12.3	11.0 - 12.3	11.8
Birmingham Fire Station #30	ND	ND	ND	ND	24.1	13.0 - 24.1	14.4	12.7 - 14.4	1.00	ND - 1.00	38.5	27.2 - 38.5	32.0
New Temple Baptist Church	ND	ND	ND	ND	20.2	14.0 - 20.2	13.8	8.00 - 13.8	ND	ND	33.2	22.0 - 33.2	29.0
Birmingham Fire Station #12	ND	ND	ND	ND	11.3	9.00 - 11.3	4.65	3.00 - 4.65	1.19	ND - 1.19	16.2	12.0 - 16.2	14.7
Shades Mountain	ND	ND	ND	ND	21.9	11.0 - 21.9	10.2	4.00 - 10.2	ND	ND	32.1	15.0 - 32.1	23.5
Birmingham Fire Station #32	ND	ND	ND	ND	22.4	14.0 - 22.4	12.8	6.00 - 12.8	ND	ND	32.6	20.0 - 32.6	29.3
Highland Lakes Bristol Lane	ND	ND	ND	ND	28.0	17.0 - 28.0	15.5	9.00 - 15.5	ND	ND	43.1	26.0 - 43.1	34.2
Hoover Fire Station #2	ND	ND	ND	ND	22.8	4.00 - 22.8	16.2	7.00 - 16.2	ND	ND	37.4	11.0 - 37.4	27.1
Shades Crest Grocery	ND	ND	ND	ND	27.6	17.7 - 27.6	15.1	10.0 - 15.1	ND	ND	41.6	29.0 - 41.6	34.6
Western	ND	ND	ND	ND	17.0	11.3 - 17.0	9.00	6.30 - 9.00	1.20	ND - 1.20	26.0	17.6 - 26.0	23.0
Birmingham Fire Station #18	ND	ND	ND	ND	25.7	12.6 - 25.7	13.4	8.02 - 13.4	ND	ND	39.1	20.6 - 39.1	28.1
Pleasant Grove Post Office	ND	ND	ND	ND	22.6	16.2 - 22.6	13.7	9.00 - 13.7	ND	ND	36.0	26.0 - 36.0	30.2
Shannon Fire Station	ND	ND	ND	ND	25.9	19.0 - 25.9	14.0	10.0 - 14.0	ND	ND	39.6	29.0 - 39.6	34.5

Sites	Chloroform (µg/L)		Bromodichloromethane (µg/L)		Dibromochloromethane (µg/L)		Bromoform (µg/L)		Total Trihalomethanes (TTHM) (µg/L)		LRAA Total Trihalomethanes (TTHM) (µg/L)
	Highest	Range	Highest	Range	Highest	Range	Highest	Range	Highest	Range	Average per Site
Carson	19.0	10.5 - 19.0	4.79	3.10 - 4.79	ND	ND	ND	ND	23.8	14.1 - 23.8	16.9
Parade Gas Station Hwy 75	26.5	12.2 - 26.5	5.47	2.98 - 5.47	ND	ND	ND	ND	31.9	15.2 - 31.9	22.4
Moody Police Dept	65.2	41.6 - 65.2	10.3	6.11 - 10.3	1.63	ND - 1.63	ND	ND	75.7	47.8 - 75.7	65.5
Putnam	13.8	7.77 - 13.8	4.32	2.41 - 4.32	1.04	ND - 1.04	ND	ND	18.8	10.3 - 18.8	13.2
Birmingham Fire Station #30	88.0	26.1 - 88.0	10.0	6.68 - 10.0	1.23	ND - 1.23	ND	ND	98.0	33.8 - 98.0	63.3
New Temple Baptist Church	66.0	39.3 - 66.0	9.79	5.80 - 9.79	1.84	ND - 1.84	ND	ND	76.7	45.1 - 76.7	63.8
Birmingham Fire Station #12	16.8	9.18 - 16.8	4.66	2.49 - 4.66	1.17	ND - 1.17	ND	ND	22.4	11.7 - 22.4	16.1
Shades Mountain	20.4	9.14 - 20.4	8.91	4.27 - 8.91	2.19	1.16 - 2.19	ND	ND	31.5	14.6 - 31.5	22.1
Birmingham Fire Station #32	34.4	15.8 - 34.4	10.4	5.85 - 10.4	2.68	1.39 - 2.68	ND	ND	47.5	23.0 - 47.5	34.8
Highland Lakes Bristol Lane	43.7	25.0 - 43.7	16.0	7.32 - 16.0	4.22	1.02 - 4.22	ND	ND	63.9	34.4 - 63.9	49.3
Hoover Fire Station #2	67.9	25.7 - 67.9	13.9	9.14 - 13.9	3.52	2.91 - 3.52	ND	ND	84.9	37.7 - 84.9	59.2
Shades Crest Grocery	53.1	27.5 - 53.1	14.0	8.03 - 14.0	3.84	1.99 - 3.84	ND	ND	67.7	37.5 - 67.7	55.4
Western	27.6	19.1 - 27.6	6.40	5.17 - 6.40	1.11	ND - 1.11	ND	ND	34.6	24.2 - 34.6	27.8
Birmingham Fire Station #18	40.6	28.1 - 40.6	8.45	6.33 - 8.45	1.89	ND - 1.89	ND	ND	49.7	35.5 - 49.7	42.3
Pleasant Grove Post Office	46.2	26.3 - 46.2	12.1	6.81 - 12.1	2.97	1.24 - 2.97	ND	ND	56.9	34.4 - 56.9	47.6
Shannon Fire Station	53.5	32.7 - 53.5	13.1	9.20 - 13.1	3.12	2.12 - 3.12	ND	ND	66.8	44.0 - 66.8	52.6

Consecutive System Meters													
Meters	Monochloroacetic Acid (µg/L)		Monobromoacetic Acid (µg/L)		Dichloroacetic Acid (µg/L)		Trichloroacetic Acid (µg/L)		Dibromoacetic Acid (µg/L)		Total Haloacetic Acids (HAAs) (µg/L)		LRAA Total Haloacetic Acids (HAAs) (µg/L)
	Highest	Range	Highest	Range	Highest	Range	Highest	Range	Highest	Range	Highest	Range	Average per Site
West Jefferson - 4251 Flat Top Road, 35073	ND	ND	ND	ND	16.0	12.5 - 16.0	12.5	8.00 - 12.5	ND	ND	27.9	21.2 - 27.9	24.7
Brookside #1 - 1298 Brookside Coalburg Road, 35181	ND	ND	ND	ND	16.9	11.0 - 16.9	10.7	5.00 - 10.7	ND	ND	27.7	16.0 - 27.7	23.5
Brookside #2 - 2299 Robert Road, 35214	ND	ND	ND	ND	17.3	12.7 - 17.3	11.4	6.76 - 11.4	ND	ND	28.2	19.5 - 28.2	25.1
Pine Bluff #1 - 22495 State Highway 79, 35172	1.31	ND - 1.31	ND	ND	22.8	19.7 - 22.8	13.8	9.00 - 13.8	1.00	ND - 1.00	36.5	29.6 - 36.5	33.1
Pine Bluff #2 - 9 Good News Road, 35172	1.12	ND - 1.12	ND	ND	21.8	17.0 - 21.8	13.9	9.00 - 13.9	ND	ND	35.7	26.0 - 35.7	31.8
SCO - 40 Inverness Center Parkway, 35242	ND	ND	ND	ND	12.1	12.1	6.37	6.37	ND	ND	18.5	18.5	18.5
Mulga #1 - 316 Templeton Road, 35218	ND	ND	ND	ND	19.2	14.4 - 19.2	11.6	7.87 - 11.6	ND	ND	30.8	22.3 - 30.8	26.4
Mulga #2 - 601 Pleasant Grove Road, 35127	ND	ND	ND	ND	24.5	14.5 - 24.5	15.6	9.56 - 15.6	ND	ND	40.1	24.0 - 40.1	32.5
Greysville #1 - 2395 Forestdale Blvd, 35214	ND	ND	ND	ND	17.6	13.7 - 17.6	11.0	7.32 - 11.0	ND	ND	28.6	21.0 - 28.6	25.8
Greysville #2 - 4251 Flattop Road, 35073	ND	ND	ND	ND	19.0	14.1 - 19.0	12.8	9.84 - 12.8	ND	ND	31.2	23.9 - 31.2	28.6
Remlap - 942 Ridgewood Drive, 35133	1.46	ND - 1.46	ND	ND	21.8	16.0 - 21.8	16.3	8.00 - 16.3	ND	ND	36.9	24.0 - 36.9	33.5
UAB/VA - 1813 6th Avenue South, 35233	ND	ND	ND	ND	23.7	12.8 - 23.7	11.9	8.49 - 11.9	ND	ND	35.1	21.3 - 35.1	29.0
Meters	Chloroform (µg/L)		Bromodichloromethane (µg/L)		Dibromochloromethane (µg/L)		Bromoform (µg/L)		Total Trihalomethanes (TTHM) (µg/L)		LRAA Total Trihalomethanes (TTHM) (µg/L)		
	Highest	Range	Highest	Range	Highest	Range	Highest	Range	Highest	Range	Average per Site		
West Jefferson - 4251 Flat Top Road, 35073	34.5	25.7 - 34.5	8.50	5.12 - 8.50	1.70	ND - 1.70	ND	ND	44.4	30.8 - 44.4	37.4		
Brookside #1 - 1298 Brookside Coalburg Road, 35181	31.2	18.5 - 31.2	7.23	4.03 - 7.23	1.38	ND - 1.38	ND	ND	39.8	23.8 - 39.8	30.6		
Brookside #2 - 2299 Robert Road, 35214	27.3	16.1 - 27.3	6.80	4.37 - 6.80	1.33	ND - 1.33	ND	ND	35.4	20.4 - 35.4	27.3		
Pine Bluff #1 - 22495 State Highway 79, 35172	35.5	12.3 - 35.5	6.00	2.85 - 6.00	ND	ND	ND	ND	41.5	15.1 - 41.5	25.5		
Pine Bluff #2 - 9 Good News Road, 35172	35.4	18.8 - 35.4	6.42	3.76 - 6.42	1.04	ND - 1.04	ND	ND	41.8	23.1 - 41.8	29.6		
SCO - 40 Inverness Center Parkway, 35242	14.0	14.0	7.23	7.23	2.31	2.31	ND	ND	23.6	23.6	23.6		
Mulga #1 - 316 Templeton Road, 35218	38.4	18.3 - 38.4	8.54	4.15 - 8.54	1.45	ND - 1.45	ND	ND	48.3	22.4 - 48.3	34.8		
Mulga #2 - 601 Pleasant Grove Road, 35127	50.3	26.3 - 50.3	9.27	6.15 - 9.27	2.00	1.16 - 2.00	ND	ND	61.3	33.6 - 61.3	44.3		
Greysville #1 - 2395 Forestdale Blvd, 35214	27.0	15.3 - 27.0	6.80	3.83 - 6.80	1.22	ND - 1.22	ND	ND	35.0	19.1 - 35.0	25.7		
Greysville #2 - 4251 Flattop Road, 35073	49.6	31.0 - 49.6	8.85	5.90 - 8.85	1.55	1.02 - 1.55	ND	ND	60.0	39.4 - 60.0	46.6		
Remlap - 942 Ridgewood Drive, 35133	41.4	17.3 - 41.4	6.80	3.71 - 6.80	1.27	ND - 1.27	ND	ND	48.2	21.0 - 48.2	35.8		
UAB/VA - 1813 6th Avenue South, 35233	31.2	23.9 - 31.2	12.3	6.83 - 12.3	3.39	1.33 - 3.39	ND	ND	46.8	33.7 - 46.8	37.6		



3600 FIRST AVENUE N.
BIRMINGHAM, AL 35222



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