

2017 Water Quality Report



Scottsboro, Waterworks, Sewer, and Gas Board

Recognized as

Alabama Water Pollution Control Association's

**Best Operated
Water Distribution System - 2016 & 2017**



Alabama's Best Operated Treatment Plant

**Rudolph "Skinny" Jones Plant - 2015 & 2017
North Sauty Creek Plant - 2014**

Alabama Department of Environmental Management

Optimization Award

12 Consecutive Years - North Sauty Creek Plant

5 Consecutive Years - Rudolph "Skinny" Jones Plant

AREA-WIDE OPTIMIZATION PROGRAM
FIVE YEAR
OPTIMIZED PLANT AWARD
2012 - 2016

is hereby awarded to the:

SCOTTSBORO WATER WORKS
SKINNY JONES WATER TREATMENT PLANT

for outstanding commitment to excellence of operation that maximizes public health protection by achieving the optimization goals for microbial removal as established by ADEM Drinking Water Branch's Optimization Program and U.S. EPA Region 4.



A handwritten signature in black ink, appearing to read "A. H. Mitchell".

Chief, Drinking Water Branch
Alabama Department
of Environmental Management
October 25, 2017

The logo for the Alabama Department of Environmental Management (ADEM), consisting of the letters "ADEM" in a bold, green, sans-serif font.



AREA-WIDE OPTIMIZATION PROGRAM
TWELVE YEAR
OPTIMIZED PLANT AWARD
2005 - 2016

is hereby awarded to the:

SCOTTSBORO WATER WORKS
NORTH SAUTY WATER TREATMENT PLANT

for outstanding commitment to excellence of operation that maximizes public health protection by achieving the optimization goals for microbial removal as established by ADEM Drinking Water Branch's Optimization Program and U.S. EPA Region 4.



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Scottsboro Waterworks, Sewer and Gas Board
Scottsboro, Alabama
2017 Water-Quality Report

We are once again proud to provide this water quality report for the customers of the Scottsboro Waterworks, Sewer & Gas Board. This is a summary report for hundreds of water samples taken between January 1st and December 31st, 2017. This report meets the Federal Safe Drinking Water Act (SDWA) requirement for "Consumer Confidence Reports" and contains information on the source of our water, its constituents, and the health risks associated with any contaminants. Safe water is a vital part of our community. Please read this report carefully and, if you have questions, call the numbers listed below. We would be pleased to hear your thoughts on the information in this report.

Scottsboro Waterworks, Sewer and Gas Board's drinking water meets or surpasses all federal and state drinking-water standards.

Call us for information about the next opportunity for public participation in decisions about our drinking water at 256.574.1515.

More information is available on the World Wide Web at www.epa.gov/drink or the Safe Drinking Water Hotline (800.426.4791) The Scottsboro Waterworks, Sewer and Gas Board of Directors are Mr. William J. Parks, Chairman; Mr. Tommy Crumbly, Vice-Chairman; Mr. Reid Henshaw, Member; Mrs. Elna Matthews, Member; Mr. Charles Yarbrough, Member; and Mr. Roy E. Light, Secretary/Treasurer. Regular scheduled meetings are every second Tuesday of each month at 4:00 PM held at the Board's business office located at 404 East Willow Street, Scottsboro, Alabama. You are welcome to attend.

Water Source

Scottsboro Waterworks, Sewer and Gas Board is supplied by surface water from the Tennessee River and Lake Guntersville Reservoir. The Jones Water Filtration Plant is located at 3001 Veterans Drive (Highway 35) and the North Sauty Creek Water Treatment Plant is located at 5800 Alabama Highway 79.

An Explanation of the Water-Quality Data Table

This report is based upon tests conduct in the year 2017 by the Scottsboro Waterworks, Sewer and Gas Board. Terms used in the Water-Quality Table and in other parts of this report are defined here.

Maximum Contaminant Level or 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 or 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.

Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.

Action Level: The concentration of a contaminant that triggers treatment or other requirement a water system shall follow.

DEFINITIONS

AL = Action Level

CP = Total Coliform Present

MCLG = Maximum Contaminant Level Goal

mrem/year = millirems per year

pCi/l = picocuries per liter

ppb = part per billion or micrograms per liter (ug/l)

ppq = part per quadrillion or picograms per liter

su = standard units

#/100 = number per 100 mL of sample

HRAA = Highest Rolling Annual Average (7 Quarters)

RAA = Rolling Annual Average (23months)

NA = Not Applicable; Not Available

LT2ESWTR = Long Term 2 Enhanced Surface Water Treatment Rule

90th Percentile = 90% of samples are equal to or less than the number in the chart.

MCL = Maximum Contaminant Level

MDL = Minimum Detection Level

NTU = Nephelometric Turbidity Unit

MFL = million fibers per liter

ppm = part per million or milligrams per liter (mg/l)

ppt = part per trillion or nanograms per liter

TT = Treatment Technique (Footnote 1)

mhos @ 25 = microohms @ 25⁰ Celsius

org./L = organisms per liter

EPA = Environmental Protection Agency

ADEM = Alabama Department of Environmental Management

DSE = Distribution System Evaluation

CDC = Center for Disease Control

Table of Detected Contaminants

Contaminant	Date Tested	Unit	Detected				Major Source	Violation
			MCL	MCLG	Level	Range		
<u>Inorganic Contaminants - Primary</u>								
Fluoride	2017	ppm	4.00	4.00	1.06	0.60 - 1.06	Erosion of natural deposits; Water additive which promotes dental health	NO
Nitrate/Nitrite	2017	ppm	10.00	10.00	0.65	0.55 - 0.65	Runoff from fertilizer use; Leaching from Septic tanks; Erosion of natural deposits.	NO
Sulfate	2017	ppm	250.00	N/A	16.2	11.7- 16.2		Naturally occurring in the environment; erosion of natural deposits
<u>Inorganic Contaminants - Secondary</u>								
Total Alkalinity	2017	ppm	----	----	88.5	58.8 - 88.5	Alkalinity comes from the bicarbonate, hydroxide components of a natural or treated water supply	
Calcium	2017	ppm	----	----	33.0	19.7 - 33.0	Naturally occurring in the environment or as result of treatment with water additives	
Carbon Dioxide	2017	ppm	----	----	2.4	2.1 - 2.4		Erosion of natural deposits or as a result of treatment with water additives
Chloride	2017	ppm	250.00	N/A	16.1	13.0 - 16.1	Naturally occurring in the environment or as a result of industrial discharge or agricultural runoff	NO
Chlorine	2017	ppm	4.00	4.00	1.90 (RAA)	0.20 - 2.20	Water Additive Used to Control Microbes	NO
Hardness	2017	ppm	----	----	101.0	67.8 - 101.0	Calcium carbonate occurs as erosion of natural deposits	
Magnesium	2017	ppm	----	----	4.51	4.50 - 4.51	Naturally occurring in the environment or as result of treatment with water additives	
pH	2017	su	----	----	7.90	6.90 - 7.90		pH identifies the presence of acid or base in water
Sodium	2017	ppm	----	----	11.0	4.24 - 11.0	Erosion of natural deposits	
Specific Conductance	2017	mhos@25	----	----	247	215 - 247	Naturally occurring in the environment or as a result of treatment with water additives	
Total Dissolved Solids	2017	ppm	500.00	N/A	160	120 - 160	Naturally occurring in the environment or as a result of industrial discharge or agricultural runoff	NO
<u>Microbiological Contaminants</u>								
Turbidity (TT) ¹	2017	NTU	TT/ 0.300	N/A	0.098	0.040 - 0.098	Soil runoff	NO

Water Quality Table Footnotes

Treatment Technique (TT): Water at the raw water pumping station is chemically treated with sodium permanganate to oxidize iron, manganese, and organic materials. Once inside the filter plant, the water is dosed with poly-aluminum chloride as a coagulant, powdered-activated carbon to control seasonal taste and odor-producing compounds, copper sulfate to control algae growths, pre-filter and post-filter chlorination for disinfection, fluoride to promote dental health, an inorganic phosphate to control corrosion of metal pipes, and sodium hydroxide for pH stability. Mechanical treatment processes include: flash mixing, flocculation, sedimentation, and rapid sand filtration.

1. Turbidity is a measure of the clarity or cloudiness of the water. Turbidity in water is caused by the presence of suspended material such as clay, silt, sand, salt, and organic matter. For many decades, turbidity has been used as an indicator of drinking water quality and as an indicator of the efficiency of drinking water coagulation, flocculation, sedimentation and filtration processes.

Table of Detected Contaminants

	Date Tested	Unit	MCL	MCLG	Detected Level	Range	Major Source	Violation
<u>Volatile Organic Contaminants</u>								
Chloroform	2017	ppb	----	----	17.40	13.10 - 17.40	By-product of drinking water disinfection	NO
Bromodichloromethane	2017	ppb	----	----	5.60	4.81 - 5.60	By-product of drinking water disinfection	NO
Dibromochloromethane	2017	ppb	----	----	1.06	0.85 - 1.06	By-product of drinking water disinfection	NO
<u>Stage 2 Disinfection/Disinfection By-Products Rule</u>					HRAA			
Total Trihalomethanes [TTHMs]	2017	ppb	80	----	61.5	29.8 - 61.5	By-product of drinking water disinfection	NO
Haloacetic Acids 5 [HAA5s]	2017	ppb	60	----	33.2	20.2 - 33.2	By-product of drinking water disinfection	NO
<u>Distribution System Evaluation (DSE)</u>					HRAA			
Total Trihalomethanes [TTHMs]	2017	ppb	80	----	50.5	30.8 - 50.5	By-product of drinking water disinfection	NO
Haloacetic Acids 5 [HAA5s]	2017	ppb	60	----	25.9	16.6 - 25.9	By-product of drinking water disinfection	NO
<u>These tap water samples were collected from over 30 sites throughout our community</u> (Detected Level Reported for 90th percentile)								
Lead	2016	ppm	AL=0.015	----	<0.005	<0.005	Corrosion of household plumbing systems; Erosion of natural deposits.	NO
Copper	2016	ppm	AL=1.3	----	0.100	<0.050 - 0.180	Corrosion of household plumbing systems; Erosion of natural deposits.	NO

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 household plumbing. Scottsboro Waterworks, Sewer and Gas 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 (800.426.4791) or at: <http://epa.gov/safewater/lead>.

Unregulated Contaminant Monitoring Rule 3 (UCMR3)

Chromium-6	2014 - 2015	ppb	----	----	0.17	0.04 - 0.17	
Chlorate	2014 - 2015	ppb	----	----	130	25 - 130	
1,4-dioxane	2014 - 2015	ppb	----	----	0.32	0.09 - 0.32	
Strontium	2014 - 2015	ppb	----	----	110	70 - 110	
Vanadium	2014 - 2015	ppb	----	----	0.5	0.2 - 0.5	
Chromium Total	2014 - 2015	ppb	----	----	0.2	0.2 - 0.2	

TABLE OF UNDETECTED CONTAMINANTS

Inorganic Contaminants tested in 2017 with results less than the Minimum Detection Level (MDL):

Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Color, Cyanides, E-coli, Iron, Manganese, MBA's, Mercury, Nickel, Odor, Selenium, Silver, Thallium, Total Coliform, and Zinc

Volatile Organic Contaminants (VOC's) tested in 2017 with results less than the Minimum Detection Level:

1, 1-Dichloroethane	1, 1, 1, 2-Tetrachloroethane	Hexachlorobutadiene
1, 1-Dichloroethene	1, 1, 2, 2-Tetrachloroethane	Isopropylbenzene
1, 1-Dichloropropene	2, 2-Dichloropropane	Methyl tert-Butyl Ether
1, 2-Dichlorobenzene	2-Chlorotoluene	Methylene Chloride
1, 2-Dichloroethane	4-Chlorotoluene	n-Butylbenzene
1, 2-Dichloropropane	4-Isopropyltoluene	n-Propylbenzene
1, 3-Dichlorobenzene	Benzene	Naphthalene
1, 3-Dichloropropane	Bromobenzene	sec-Buthylbenzene
1, 3-Dichloropropene	Bromochloromethane	Styrene
1, 4-Dichlorobenzene	Bromomethane	tert-Butylbenzene
1, 1, 1-Trichloroethane	Carbon Tetrachloride	Tetrachloroethene
1, 1, 2-Trichloroethane	Chlorobenzene	Toluene
1, 2, 3-Trichlorobenzene	Chloroethane	trans- 1,2-Dichloroethene
1, 2, 3-Trichloropropane	Chloromethane	Trichloroethene
1, 2 ,4-Trichlorobenzene	cis- 1,2-Dichloroethene	Trichlorofluoromethane
1, 2 ,4-Trimethylbenzene	Dibromomethane	Vinyl Chloride
1, 3, 5-Trimethylbenzene	Dichlorodifluoromethane	Xylenes (ortho-para-meta)
Bromoform	Ethylbenzene	

Synthetic Organic Chemcials (SOC's) tested in 2017 with results less than the Minimum Detection Level:

2,4,5-TP (Silvex)	Endothall	Toxaphene
2,4-D	Endrin	3-Hydroxycarbofuran
Alachlor	Glyphosate	Aldicarb
Atrazine	Heptachlor	Aldicarb sulfone
Benzo(a)pyrene	Heptachlor epoxide	Aldicarb sulfoxide
Carbofuran	Hexachlorobenzene	Aldrin
Chlordane	Hexachlorocyclopentadiene	Butachlor
Dalapon	gamma-BHC	Carbaryl
1,2 - Dibromo-3-chloropropane	Methoxychlor	Dicamba
bis(2)-Ethylhexyl)adipate	Oxamyl	Dieldrin
bis(2)-Ethylhexyl)phthalate	Total Polychlorinated Biphenyls	Methomyl
Dinoseb	Pentachlorophenol	Metolachlor
Diquat	Picloram	Metribuzin
1,2-Dibromoethane	Simazine	Propachlor

Additional Water Quality Testing

Scottsboro Water, Sewer and Gas Board tested the Raw Untreated Water in the Tennessee River and North Sauty Creek on a monthly basis from April 2015 thru March 2017 for Cryptosporidium, Giardia, E.coli, Total Coliform, and Turbidity.



P.O. Box 550
Scottsboro, AL 35768

Required Additional Information

To ensure that tap water is safe to drink, EPA prescribes limits on the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water.

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 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 materials and can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include:

- [A] Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- [B] Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.
- [C] Pesticides and herbicides, which may come from a variety of sources such as agriculture, stormwater runoff, and residential uses.
- [D] Organic chemical contaminants, including synthetic and volatile organics, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff and septic systems.
- [E] Radioactive contaminants, which be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health. Some people may be more vulnerable to contaminants in drinking water than is 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 infections by Cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline 800.426.4791.

Based on a study conducted by ADEM with the approval of the EPA a statewide waiver for the monitoring of asbestos and dioxin was issued. Thus, monitoring for any of these contaminants was not required.

National Primary Drinking Water Regulation Compliance Source Water Assessment

A source water assessment has been completed for our area to provide baseline data about quality of water before it is treated and distributed to our customers. Information regarding this source water assessment can be obtained from the Scottsboro Waterworks, Sewer and Gas Board or the Alabama Department of Environmental Management (ADEM).

For more information, call the Scottsboro Waterworks, Sewer and Gas Board at 256.574.1515.

Water Quality Data for community water systems throughout the United States is available at www.epa.gov/drink