



P.O. Box 2128
Dothan, AL 36302
Visit the City of Dothan
Website @ dothan.org

Psrt Std
U.S. Postage
PAID
MSB Inc
35203



2017 Drinking Water Quality Report

Unregulated Contaminant Monitoring Rule Phase III (UCMR3) (Well Distribution Points)			
As required by the USEPA, monitoring of the following unregulated contaminants was accomplished in 2014 and 2015. Unregulated contaminants are those that don't yet have a drinking water standard set by the USEPA. The purpose of monitoring for these contaminants is to help USEPA decide whether the contaminants should have a standard.			
Contaminant	Average Detection Level	Contaminant	Average Detection Level
perfluorobutanesulfonic acid (PFBS)	ND	chlorodifluoromethane	ND
perfluoroheptanoic acid (PFHpA)	ND	chloromethane	ND
perfluorohexanesulfonic acid (PFHxS)	ND	1,4 dioxane	ND
perfluorononanoic acid (PFNA)	ND	chromium-6 (µg/L)	0.09
perfluorooctanoic acid (PFOA)	ND	chromium (total) (µg/L)	0.11
perfluorooctanesulfonic Acid (PFOS)	ND	cobalt	ND
1,1-dichloroethane	ND	molybdenum	ND
1,2,3-trichloropropane	ND	strontium (µg/L)	567
1,3 butadiene	ND	vanadium	ND
bromochloromethane	ND	chlorate	ND
bromomethane	ND		

2016 Lead and Copper Monitoring (Select Addresses)				
Contaminant	Samples Taken	AL	Samples Exceeding AL	90 th Percentile
Lead	33	0.015 ppm	0	0.001 ppm
Copper	33	1.3 ppm	0	0.59 ppm

2016 Secondary Maximum Contaminant Levels-Aesthetics				
Contaminant	Average Level Detected	Detected Range	Unit Measurement	MCL
Chloride	8.53	4.77 – 20.2	ppm	250
Copper	0.011	ND – 0.059	ppm	1
Iron	0.135	ND – 0.64	ppm	0.3
Sulfate	12.19	9.54 - 18.2	ppm	250
Total Dissolved Solids	205	154 - 290	ppm	500
Zinc	ND	ND – 0.04	ppm	5
Manganese	ND	ND – 0.14	ppm	0.05

Terms and Abbreviations

In these tables, you will find many terms and abbreviations with which you may not be familiar. To help you better understand these terms, we have provided the following definitions:

- Non-Detects (ND) - laboratory analysis indicates that the constituent is not present.
- Parts per million (ppm) or Milligrams per liter (mg/l) - One part per million corresponds to one minute in two years or a single penny in \$10,000.
- Parts per billion (ppb) or Micrograms per liter - One part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.
- Parts per trillion (ppt) or Nanograms per liter (nanograms/l) - One part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.
- Parts per quadrillion (ppq) or Picograms per liter (picograms/l) - One part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in \$10,000,000,000,000.
- Picocuries per liter (pCi/L) - picocuries per liter is a measure of the radioactivity in water.
- Millirems per year (mrem/yr) - measure of radiation absorbed by the body.
- Million Fibers per Liter (MFL) - Million fibers per liter is a measure of the presence of asbestos fibers that are longer than 10 micrometers.
- 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.
- Action Level (AL) - The concentration of a contaminant that triggers treatment or other requirements which a water system shall follow.
- Treatment Technique (TT) - A required process intended to reduce the level of a contaminant in drinking water.
- Maximum Contaminant Level - The "Maximum Allowed" (MCL) is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
- Maximum Contaminant Level Goal - The "Goal" (MCLG) is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
- Maximum Residual Disinfectant Level Goal 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 contaminants.
- Maximum Residual Disinfectant Level or 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.
- Variances & Exemptions - ADEM or EPA permission not to meet an MCL or a treatment technique under certain conditions.

Introduction

We are pleased to present the 2017 Drinking Water Quality Report for the City of Dothan, Alabama. This report is designed to provide information about the quality of our water and associated services delivered during the previous calendar year. This publication complies with state and federal laws requiring water utilities to provide water quality information to their customers every year.

Based upon the findings of our water quality monitoring, Dothan's drinking water has been determined to be safe. It meets, or is better than, federal and state requirements for drinking water quality standards over the past year.

Source of our Water

Groundwater, our only source of potable water, is provided from shallow and deep wells. Depending upon the location and depth of each well, Dothan's high quality water comes from the following formations: Lisbon, Tallahatta, Hatchetigbee, Tuscahoma Sand, Nanafalia, Salt Mountain Limestone, Clayton, and Providence Sand. From our 33 wells (32 million gallons per day capacity) that are located throughout the City and surrounding areas, the Dothan Water System provides an average of 12.6 million gallons of water per day. Therefore, approximately 4.6 billion gallons of water were pumped, prepared and safely distributed during 2017.

Dothan Utilities has a "Source Water Assessment Plan" that provides information about the location of our wells, screened intervals, groundwater data and potential sources of contamination. This plan, in conjunction with other wellhead information collected, comprises items required in the voluntary Wellhead Protection Program. The susceptibility analysis, which is the final section of the Source Water Assessment Plan, was completed in 2002 with the assistance of the Alabama Department of Environmental Management (ADEM) and updated in 2014. The most likely sources of possible contamination identified in our area are agricultural fields and privately-owned wells. The "Source Water Assessment Plan" is available for review at the Dothan Utilities Complex, 200 Kilgore Drive in Dothan, Alabama.

Treatment of Dothan Water

Raw water must be properly treated prior to being pumped into the water distribution system. Treatment of our well water includes: addition of chlorine to help protect against bacteria; addition of fluoride to assist in preventing dental diseases; and the addition of phosphate to aid in the reduction of red water and leaching of metallic piping substances. After treatment, the water is either directly discharged into our distribution system or pumped to one of our (14) fourteen water storage tanks.



Notice to Immuno-Compromised People

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons, such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline 1-800-426-4791.

Additional Information

All of the water sources in Alabama start as rain water which fills our lakes, rivers and aquifers. 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 it can pick-up substances resulting from the presence of animals or from human activity. Therefore, it is important for each and every one of us to keep our environment clean, which will help protect our sources of drinking water and ultimately the health of our generation and future generations.

Lead-Specific Information

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. Dothan Utilities 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 it 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>.



Closing

Dothan Utilities consistently strives to provide top quality water to every tap and every customer. We ask all our customers to help us protect and conserve our water sources for today and future generations. If you have any questions concerning this report or your water utility, please contact the Dothan Utilities Water Section by telephone (334/615-3200), by Fax (334/615-3309), by mail (200 Kilgore Drive; Dothan, Alabama 36301) or by email (DothanUtilities@dothan.org). Your municipal water utility functions under the authority granted by the Dothan City Commission which meets the first and third Tuesday of each month at 10:00 a.m. in the Dothan Commission Chambers at the Dothan Civic Center.

Visit the City of Dothan Web-Site at WWW.DOTHAN.ORG

Enjoy the convenience of accessing your Dothan Utilities account from your home or office! Customers may view billing history, payment activity and make payments online through our secure site at www.dothan.org. Dothan Utilities also offers budget billing, automatic bank draft, and discounts for seniors.

Mark Saliba, Mayor
Kevin Dorsey, Commissioner District 1
Janasky Fleming, Commissioner District 2
Albert Kirkland, Commissioner District 3
John Ferguson, Commissioner District 4
Beth Kenward, Commissioner District 5
David Crutchfield, Commissioner District 6

Table of Primary Drinking Water Contaminants

This table provides a quick glance of the primary contaminant and the highest level detected to determine compliance.

Contaminant	MCL	Amount Detected	Contaminant	MCL	Amount Detected
Microbiological Contaminants			Dinoseb (ppb)	7	ND
Total Coliform Bacteria (2017)	5%	ND	Diquat (ppb)	20	ND
Fecal Coliform & E. Coli (2017)	0	ND	1-Dioxin [2, 3, 7, 8-TCDD] (ppq)	30	Exemption
Turbidity (2016)	TT	0.31	Endothall (ppb)	100	ND
Radioactive Contaminants (2017)			Endrin (ppb)	2	ND
Gross Alpha (pCi/L)	15	10.6	Ethylene dibromide (ppt)	50	ND
Radium 228 (pCi/L)	5	2.2	Glyphosate (ppb)	700	ND
Inorganic Contaminants (2016)			Heptachlor (ppt)	400	ND
Antimony (ppb)	6	ND	Heptachlor epoxide (ppt)	200	4.6
Arsenic (ppb)	10	ND	Hexachlorobenzene (ppb)	1	ND
Asbestos (MFL)	7	Exemption	Hexachlorocyclopentadiene (ppb)	50	ND
Barium (ppm)	2	0.038	Lindane (ppt)	200	ND
Beryllium (ppb)	4	ND	Methoxychlor (ppb)	40	ND
Cadmium (ppb)	5	ND	Oxamyl [Vydate] (ppb)	200	ND
Chlorine (ppm)	4	1.43	PCBs [Polychlorinated biphenyls] (ppt)	500	ND
Chromium (ppb)	100	ND	Pentachlorophenol (ppb)	1	ND
Copper (ppm)	AL = 1.3	0.059	Picloram (ppb)	500	ND
Cyanide (ppb)	200	ND	Simazine (ppb)	4	ND
Fluoride (ppm)	4	1.29	Toxaphene (ppb)	3	ND
Lead (ppm)	AL = 0.015	ND	Volatile Organic Contaminants (2017)		
Mercury (ppb)	2	ND	Benzene (ppb)	5	ND
Nickel (ppm)	0.1	ND	Carbon Tetrachloride (ppb)	5	ND
Nitrate (ppm)	10	0.32	Mono-Chlorobenzene (ppb)	100	ND
Nitrite (ppm)	1	ND	o-Dichlorobenzene (ppb)	600	ND
Total Nitrite and Nitrate (ppm)	10	0.32	p-Dichlorobenzene (ppb)	75	ND
(2017) Nitrate (ppm)	10	1.9	1, 2-Dichloroethane (ppb)	5	ND
Selenium (ppb)	50	ND	1, 1-Dichloroethylene (ppb)	7	ND
Thallium (ppb)	2	ND	cis-1, 2-Dichloroethylene (ppb)	70	ND
Total Organic Carbon (TOC)	TT	0.4	Trans- 1, 2-Dichloroethylene (ppb)	100	ND
Synthetic Organic Contaminants (2017)			Dichloromethane (ppb)	5	0.49
2, 4-D (ppb)	70	ND	1, 2-Dichloropropane (ppb)	5	ND
2, 4, 5-TP [Silvex] (ppb)	50	ND	Ethylbenzene (ppb)	700	ND
Alachlor (ppb)	2	ND	Styrene (ppb)	100	ND
Atrazine (ppb)	3	ND	Tetrachloroethylene (ppb)	5	ND
Benzo(a)pyrene [PAH] (ppt)	200	ND	1, 2, 4-Trichlorobenzene (ppb)	70	ND
Carbofuran (ppm)	40	0.25	1, 1, 1-Trichloroethane (ppb)	200	ND
Chlordane (ppb)	2	ND	1, 1, 2-Trichloroethane (ppb)	5	ND
Dalapon (ppb)	200	ND	Trichloroethylene (TCE) (ppb)	5	ND
Di-(2-ethylhexyl)adipate (ppb)	400	ND	Toluene (ppm)	1	ND
Di-(2-ethylhexyl)phthalate (ppb)	6	0.62	Vinyl Chloride (ppb)	2	ND
Dibromochloro-propane (ppt)	200	ND	Xylenes (ppm)	10	0.00028

1. Exemption-Based on a study conducted by the Department, 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.

Table of Detected Contaminants (Well Distribution Points)

Contaminant	Violation Y/N	Average Level Detected	Detected Range	Unit	MCLG	MCL	Likely Source of Contamination
Radioactive Contaminants (2017)							
Gross Alpha (2017)	N	1.4	ND – 10.6	pCi/L	0	15	Erosion of natural deposits
Radium 228 (2017)	N	0.3	ND - 2.2	pCi/L	0	5	Erosion of natural deposits
Inorganic Contaminants (2016)							
Barium	N	0.025	0.003 – 0.038	ppm	2	2	Erosion of natural deposits
Chlorine	N	1.36	1.2 - 1.43	ppm	4	4	Water Additive to control microbes
Copper	N	0.011	ND – 0.059	ppm	1.3	AL = 1.3	Corrosion of household plumbing systems; erosion of natural deposits
Fluoride	N	0.63	ND – 1.29	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth
Nitrate	N	ND	ND – 0.32	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
(2017) Nitrate	N	0.06	ND - 1.9	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Total Organic Carbon	N	0.30	0.2 – 0.4	ppm	N/A	TT	Naturally present in the environment
Organic Contaminants (2017)							
Carbofuran	N	ND	ND – 0.25	ppb	40	40	Leaching of soil fumigant used on rice and alfalfa.
Heptachlor Epoxide	N	ND	ND – 4.6	ppt	0	200	Breakdown of heptachlor
Di(2-ethylhexyl)phthalate	N	ND	ND – 0.62	ppb	0	6	Discharge from rubber and chemical factories
Xylene	N	ND	ND – 0.00028	ppm	10	10	Discharge from chemical factories
Dichloromethane	N	ND	ND – 0.49	ppb	0	5	Discharge from chemical factories and pharmaceuticals
Unregulated Organic Contaminants (2017)							
Unregulated contaminants are those that don't yet have a drinking water standard set by the USEPA. The purpose of monitoring for these contaminants is to help USEPA decide whether the contaminants should have a standard.							
Contaminant		Average Level Detected		Detected Range		Unit Measurement	
Bromoform		ND		ND – 0.00025		ppm	
Chlorobromomethane		ND		ND – 0.00033		ppm	
Chlorodibromomethane		ND		ND – 0.00150		ppm	
Chloroform		ND		ND – 0.00550		ppm	
Dichlorobromomethane		0.00021		ND – 0.00210		ppm	
Dieldrin		ND		ND – 0.000027		ppm	
3-Hydroxycarbofuran		ND		ND – 0.00046		ppm	
Carbaryl		ND		ND – 0.0005		ppb	
Aldicarb Sulfoxide		ND		ND – 0.00034		ppm	
2017 Disinfectants/Disinfection Byproduct Rule Sampling Requirement (Selected Addresses)							
Contaminant		Violation Y/N	Level Detected	Unit Measurement	MCL	MCLG	Likely Source of Contamination
TTHM (Total Trihalomethanes)		N	4.0 (Average) Range 3.0 – 5.0	ppb	80	0	By-product of drinking water chlorination
HAA5 (Total Haloacetic Acids)		N	ND (Average) Range ND – ND	ppb	60	0	By-product of drinking water chlorination
2017 Special Monitoring Results for Corrosivity Characteristics (Selected Addresses)				2016 Special Monitoring Results for Corrosivity Characteristics (Well Distribution Points)			
Contaminant	Average Detected	Detected Range	Unit Measurement	Contaminant	Average Detected	Detected Range	Unit Measurement
pH	7.95	7.7 – 8.2	p/H scale	pH	7.4	7.1 – 7.8	p/H scale
Total Alkalinity	151	140 - 170	ppm	Total Alkalinity	130	130 - 165	ppm
Carbon Dioxide	ND	ND - ND	ppm	Carbon Dioxide	7.89	4 – 20	ppm
Sodium	29.8	19.0 – 42.0	ppm	Sodium	27.89	13.5 – 67.5	ppm
Sulfates	9.91	8.8 – 12.0	ppm	Sulfates	12.19	9.54 – 18.2	ppm
Calcium	31.7	25 - 43	ppm	Calcium	30.68	5.7 – 50.4	ppm
Magnesium	6.16	5.5 – 6.7	ppm	Magnesium	6.18	2.52 – 8.6	ppm
Hardness	103.9	88 - 130	ppm	Hardness	101	25 - 150	ppm
Total Dissolved Solids	182	150 - 210	ppm	Specific Conductance	312	35 - 375	µmhos
Orthophosphate	0.0494	0.023 – 0.087	ppm				
Iron	0.05	ND – 0.09	ppm				