

# Annual Drinking Water Quality Report


## January-December 2017

### Covington County Water Authority


We're pleased to present to you this year's Annual Quality Water Report. This report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. Covington County's water source is groundwater drawn from six (6) wells. Four (4) wells draw from the Clayton Limestone aquifer, one (1) well draws from the Nanafalia aquifer and one (1) well draws from the Lisbon aquifer. The water we provide to our customers requires no specialized treatment, however chlorine is added for disinfection purposes. The Covington Water Authority routinely completes a water storage facility inspection plan, and utilizes a Bacteriological Monitoring Plan and a Cross Connection Policy is in place to insure good safe drinking water for our customers. We have completed a Source Water Assessment Plan which is available at our office for review. This report provides information about potential sources of contamination and is set up to help protect our source.

If you have any questions about this report or concerning your water utility, please contact James R. Ward at 334-428-2656. We want our valued customers to be informed about their water utility. If you want to learn more, please visit our website at [www.covingtoncountywater.com](http://www.covingtoncountywater.com) and our regularly scheduled meetings are held the second Tuesday of each month, 9:00 a.m., at 22420 Tracks Lane in Andalusia.

#### BOARD OF DIRECTORS

 **Bragg Carter, Chairman**

 **Richard Merrill**

 **Wallace B. (Joe) Bush**

Covington County Water Authority routinely monitors for contaminants in your drinking water according to Federal and State laws. This table below shows the results of our monitoring for the period of January 1<sup>st</sup> to December 31<sup>st</sup>, 2017 unless noted. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. It's important to remember that the presence of these contaminants does not necessarily pose a health risk.

#### PLAIN LANGUAGE DEFINITIONS

- **Non-Detects (ND)** - laboratory analysis indicates that the contaminant is not present.
- **Not Required (NR)** - Laboratory analysis not required due to waiver granted by the Environmental Protection Agency for the State of Alabama.
- **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.
- **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.
- **Variances & Exemptions (V&E)** - State or EPA permission not to meet an MCL or a treatment technique under certain conditions.
- **Action Level (AL)** - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- **Treatment Technique (TT)** - (mandatory language) A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.
- **Threshold Odor Number (T.O.N.)** - The greatest dilution of a sample with odor-free water that still yields a just-detectable odor.
- **Maximum Contaminant Level** - (mandatory language) 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** - (mandatory language) 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.

#### Contaminants that may be present in source water include:

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

# Table of Primary Contaminants

At high levels some primary contaminants are known to pose a health risks to humans. This table provides a quick glance of any primary contaminant detections.

CONTAMINANT	MCL	AMOUNT DETECTED	CONTAMINANT	MCL	AMOUNT DETECTED	CONTAMINANT	MCL	AMOUNT DETECTED
<b>Bacteriological</b>			Selenium(ppb)	50	ND	Epichlorohydrin	TT	ND
Total Coliform Bacteria	< 5%	ND	Thallium(ppb)	2	ND	Ethylbenzene(ppb)	700	ND
Turbidity	TT	3.24	<b>Organic Chemicals</b>			Ethylene dibromide(ppt)	50	ND
Fecal Coliform & E. coli	0	ND	Acrylamide	TT	ND	Glyphosate(ppb)	700	ND
<b>Radiological</b>			Alachlor(ppb)	2	ND	Haloacetic Acids(ppb)	60	2.80
Beta/photon emitters (mrem/yr)	4	ND	Atrazine(ppb)	3	ND	Heptachlor(ppt)	400	ND
Alpha emitters (pci/l)	15	ND	Benzene(ppb)	5	ND	Heptachlor epoxide(ppt)	200	ND
Combined radium (pci/l)	5	3.2+/-1.4	Benzo(a)pyrene(PHAs)(ppt)	200	ND	Hexachlorobenzene(ppb)	1	ND
Uranium(pci/l)	30	ND	Carbofuran(ppb)	40	ND	Hexachlorocyclopentadiene(ppb)	50	ND
<b>Inorganic</b>			Carbon Tetrachloride(ppb)	5	ND	Lindane(ppt)	200	ND
Antimony (ppb)	6	ND	Chlordane(ppb)	2	ND	Methoxychlor(ppb)	40	ND
Arsenic (ppb)	10	ND	Chlorobenzene(ppb)	100	ND	Oxamyl [Vydate](ppb)	200	ND
Asbestos (MFL)	7	ND	2,4-D	70	ND	Pentachlorophenol(ppb)	1	ND
Barium (ppm)	2	ND	Dalapon(ppb)	200	ND	Picloram(ppb)	500	ND
Beryllium (ppb)	4	ND	Dibromochloropropane(ppt)	200	ND	PCBs(ppt)	500	ND
Bromate(ppb)	10	ND	0-Dichlorobenzene(ppb)	600	ND	Simazine(ppb)	4	ND
Cadmium (ppb)	5	ND	p-Dichlorobenzene(ppb)	75	ND	Styrene(ppb)	100	ND
Chloramines(ppm)	4	ND	1,2-Dichloroethane(ppb)	5	ND	Tetrachloroethylene(ppb)	5	ND
Chlorine(ppm)	4	ND	1,1-Dichloroethylene(ppb)	7	ND	Toluene(ppm)	1	ND
Chlorine dioxide(ppb)	800	ND	Cis-1,2-Dichloroethylene(ppb)	70	ND	TOC	TT	ND
Chlorite(ppm)	1	ND	trans-1,2-Dichloroethylene(ppb)	100	ND	TTHM(ppb)	80	11.70
Chromium (ppb)	100	ND	Dichloromethane(ppb)	5	ND	Toxaphene(ppb)	3	ND
Copper (ppm)	AL=1.3	0.11	1,2-Dichloropropane(ppb)	5	ND	2,4,5-TP (Silvex)(ppb)	50	ND
Cyanide (ppb)	200	ND	Di-(2-ethylhexyl)adipate(ppb)	400	ND	1,2,4-Trichlorobenzene(ppb)	70	ND
Fluoride (ppm)	4	1.29	Di(2-ethylhexyl)phthlates(ppb)	6	ND	1,1,1-Trichloroethane(ppb)	200	ND
Lead (ppb)	AL=15	ND	Dinoseb(ppb)	7	ND	1,1,2-Trichloroethane(ppb)	5	ND
Mercury (ppb)	2	ND	Dioxin[2,3,7,8-TCDD](ppq)	30	ND	Trichloroethylene(ppb)	5	ND
Nitrate (ppm)	10	0.36	Diquat(ppb)	20	ND	Vinyl Chloride(ppb)	2	ND
Nitrite (ppm)	1	ND	Endothall(ppb)	100	ND	Xylenes(ppm)	10	ND
Total Nitrate & Nitrite	10	0.36	Endrin(ppb)	2	ND			

# Table of Secondary and Unregulated Contaminants

**Secondary Drinking Water Standards** are guidelines regulating contaminants that may cause cosmetic effects (such as skin or tooth discoloration) or aesthetic effects (such as taste, odor, or color) in drinking water. ADEM has Secondary Drinking Water Standards established in state regulations applicable to water systems required to monitor for the various components. **Unregulated contaminants** are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

CONTAMINANT	MCL	DETECT	CONTAMINANT	MCL	DETECT	CONTAMINANT	MCL	DETECT
<b>Secondary</b>								
Aluminum	0.2	ND	Foaming Agents	0.5	ND	Silver	7	ND
Chloride	250	232.00	Iron	0.3	0.10	Sulfate	70	21.9
Color (PCU)	15	5.00	Magnesium	75	10.30	Total Dissolved Solids	500	788
Copper	1	0.055	Odor (T.O.N.)	5	1.00	Zinc	5	ND
<b>Special</b>								
Calcium	N/A	31.10	pH (SU)	N/A	8.34	Temperature (*C)	N/A	ND
Carbon Dioxide	N/A	3.3	Sodium	N/A	269.00	Total Alkalinity	N/A	255
Manganese	0.05	ND	Specific Conductance (umhos)	<500	1120.00	Total Hardness (as CaCO3)	N/A	ND
<b>Unregulated</b>								
1,1 - Dichloropropene	N/A	ND	Bromobenzene	N/A	ND	Hexachlorobutadiene	N/A	ND
1,1,2,2-Tetrachloroethane	N/A	ND	Bromochloromethane	N/A	ND	Isopropylbenzene	N/A	ND
1,1-Dichloroethane	N/A	ND	Bromodichloromethane	N/A	0.34	M-Dichlorobenzene	N/A	ND
1,2,3 - Trichlorobenzene	N/A	ND	Bromoform	N/A	0.90	Methomyl	N/A	ND
1,2,3 - Trichloropropane	N/A	ND	Bromomethane	N/A	ND	Metolachlor	N/A	ND
1,2,4 - Trimethylbenzene	N/A	ND	Butachlor	N/A	ND	Metribuzin	N/A	ND
1,2,4-Trichlorobenzene	N/A	ND	Carbaryl	N/A	ND	MTBE	N/A	ND
1,3 - Dichloropropane	N/A	ND	Chloroethane	N/A	ND	N - Butylbenzene	N/A	ND
1,3 - Dichloropropene	N/A	ND	Chlorodibromomethane	N/A	ND	Naphthalene	N/A	ND
1,3,5 - Trimethylbenzene	N/A	ND	Chloroform	N/A	1.25	N-Propylbenzene	N/A	ND
2,2 - Dichloropropane	N/A	ND	Chloromethane	N/A	ND	O-Chlorotoluene	N/A	ND
3-Hydroxycarbofuran	N/A	ND	Dibromochloromethane	N/A	1.44	P-Chlorotoluene	N/A	ND
Aldicarb	N/A	ND	Dibromomethane	N/A	ND	P-Isopropyltoluene	N/A	ND
Aldicarb Sulfone	N/A	ND	Dichlorodifluoromethane	N/A	ND	Propachlor	N/A	ND
Aldicarb Sulfoxide	N/A	ND	Dieldrin	N/A	ND	Sec - Butylbenzene	N/A	ND
Aldrin	N/A	ND	Fluorotrichloromethan	N/A	ND	Tert - Butylbenzene	N/A	ND

Table of Detected Drinking Water Contaminants									
CONTAMINANT	MCLG	MCL	Range			Amount Detected		Likely Source of Contamination	
<b>Bacteriological Contaminants January - December 2016</b>									
Total Coliform Bacteria	0	< 5%				ND	Present or Absent	Naturally present in the environment	
Turbidity	0	TT				3.24	NTU	Soil runoff	
Fecal Coliform & E. coli	0	0				ND	Present or Absent	Human and animal fecal waste	
Viruses, Giardia	0	TT				0	Present or Absent	Human and animal fecal waste	
Legionella	0	TT				0	Present or Absent	Found naturally in water, multiplies in heating systems	
<b>Radiological Contaminants January - December 2013-2015</b>									
Beta particle and photon	0	4				ND	mrem/yr	Decay of natural and man-made deposits	
Alpha emitters	0	15				ND	pCi/L	Erosion of natural deposits	
Combined Radium 226 & 228	0	5				3.2+/-1.4	pCi/L	Erosion of natural deposits	
Uranium	0	30				ND	pCi/L	Erosion of natural deposits	
<b>Inorganic Contaminants January - December 2014-2017</b>									
Chlorine	MRDLG 4	MRDL 4	0.80	-	1.20	1.20	ppm	Water additive used to control microbes	
Copper	1.3	10 Sites AL=1.3	No. of Sites above action level 0			0.11	ppm	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives	
Fluoride	4	4	ND	-	1.29	1.29	ppm	Water additive which promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories	
Lead	0	10 Sites AL=15	No. of Sites above action level 0			ND	ppb	Corrosion of household plumbing systems, erosion of natural deposits	
Nitrate (as N)	10	10	0.19	-	0.36	0.36	ppm	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits	
Total Nitrate & Nitrite	10	10	0.19	-	0.36	0.36	ppm	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits	
<b>Organic Contaminants January - December 2017</b>									
Haloacetic Acids (HAA5)	0	60	1.06	-	4.02	2.8 Avg.	ppb	By-product of drinking water chlorination	
Total trihalomethanes (TTHM)	0	80	1.32	-	28.40	11.7 Avg.	ppb	By-product of drinking water chlorination	
<b>Secondary Contaminants January - December 2016</b>									
Aluminum	N/A	0.2	ND	-	ND	ND	ppm	Erosion of natural deposits or as a result of treatment with water additives	
Chloride	N/A	250	ND	-	232.00	232.00	ppm	Naturally occurring in the environment or as a result of agricultural runoff	
Color	N/A	15	ND	-	5.00	5.00	PCU	Naturally occurring in the environment or as a result of treatment with water additives	
Copper	N/A	1	ND	-	0.06	0.06	ppm	Erosion of natural deposits; leaching from pipes	
Foaming Agents	N/A	0.5	ND	-	ND	ND	ppm	Naturally occurring in the environment	
Iron	N/A	0.3	ND	-	0.10	0.10	ppm	Erosion of natural deposits	
Magnesium	N/A	0.05	ND	-	10.30	10.30	ppm	Erosion of natural deposits	
Odor	N/A	3	ND	-	1.00	1.00	T.O.N.	Naturally occurring in the environment or as a result of treatment with water additives	
Silver	N/A	0.1	ND	-	ND	ND	ppm	Erosion of natural deposits	
Sulfate	N/A	250	ND	-	21.90	21.90	ppm	Naturally occurring in the environment	
Total Dissolved Solids	N/A	500	ND	-	788.00	788.00	ppm	Erosion of natural deposits	
Zinc	N/A	5	ND	-	ND	ND	ppm	Erosion of natural deposits	
<b>Special Contaminants January - December 2016</b>									
Calcium	N/A	N/A	ND	-	31.10	31.10	ppm	Erosion of natural deposits	
Carbon Dioxide	N/A	N/A	ND	-	3.30	3.30	ppm	Erosion of natural deposits	
Manganese	N/A	N/A	ND	-	ND	ND	ppm	Erosion of natural deposits	
pH	N/A	N/A	ND	-	8.34	8.34	SU	Naturally occurring in the environment or as a result of treatment with water additives	
Sodium	N/A	N/A	ND	-	269.00	269.00	ppm	Naturally occurring in the environment	
Specific Conductance	N/A	<500	ND	-	1120.00	1120.00	umhos	Naturally occurring in the environment or as a result of treatment with water additives	
Temperature	N/A	N/A	ND	-	ND	ND	°C	Naturally occurring in the environment	
Total Alkalinity	N/A	N/A	ND	-	255.00	255.00	ppm	Erosion of natural deposits	
Total Hardness (as CaCO3)	N/A	N/A	ND	-	ND	ND	ppm	Naturally occurring in the environment or as a result of treatment with water additives	
<b>Unregulated Contaminants January - December 2014-2017</b>									
Bromodichloromethane	N/A	N/A	ND	-	0.68	0.34	ppb	Naturally occurring in the environment or as a result of industrial discharge or agricultural runoff; by-product of chlorination	
Bromoform	N/A	N/A	ND	-	0.90	0.90	ppm	Naturally occurring in the environment or as a result of industrial discharge or agricultural runoff; by-product of chlorination	
Chloroform	N/A	N/A	1.08	-	1.41	1.25	ppb	Naturally occurring in the environment or as a result of industrial discharge or agricultural runoff; by-product of chlorination	
Dibromochloromethane	N/A	N/A	ND	-	2.88	1.44	ppm	Naturally occurring in the environment	

## GENERAL INFORMATION

**MCL's are set at very stringent levels. To understand the possible health effects described for many regulated contaminants, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.**

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. People who are immuno-compromised, such as cancer patients undergoing chemotherapy, organ transplant recipients, HIV/AIDS positive or individuals with other immune system disorders, some elderly, and infants, can be particularly at risk from infections. Those at risk should seek advice about drinking water from the 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).

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 water poses a health risk. **More information about contaminants and potential health effects can be obtained by call the Environmental Protection Agency's Safe Drinking Water Hotline (1-800-426-4791).**

In our continuing efforts to maintain a safe and dependable water supply it may be necessary to make improvements in your water system. The costs of these improvements may be reflected in the rate structure. Rate adjustments may be necessary in order to address these improvements.

Thank you for allowing us to continue providing your family with clean, quality water this year. In order to maintain a safe and dependable water supply we sometimes need to make improvements that will benefit all of our customers. These improvements are sometimes reflected as rate structure adjustments. Thank you for understanding.

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. Covington County Water Authority 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>.

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.

We at the Covington County Water Authority work around the clock to provide top quality water to every tap. Carefully follow instructions on pesticides and herbicides you use for your lawn and garden and properly dispose of household chemicals, paints, and waste oil. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future.