

## How do I get involved?

If you want to learn more about this report or about our utility, please attend one of our regularly scheduled meetings. They are held at 9 a.m. on the first and third Tuesday of each month in the Council Chambers of the Public Safety Building at 1111 Broad Street, Phenix City, Alabama.

## Water Filtration Plant Excellence Awards

The Phenix City Utilities Water Filtration Plant has a commitment to our customers and dedication to protecting public health by supplying high quality drinking water and continually meeting or exceeding state and federal drinking water regulatory requirements as economically possible and in an environmentally sound manner, for the growing residential, commercial, and industrial needs of Phenix City.

In these efforts Phenix City has been recognized with awards of excellence to include Best Operated Plant Awards, Treatment Optimization Awards and Fluoridation Optimization awards.



Phenix City  
Department of Public Utilities  
1119 Broad Street  
Phenix City, AL 36867

# 2015 Annual Drinking Water Quality Report

*Water testing performed in 2014*



Dear Customer,

This annual report is designed to keep you informed about the quality of water that is supplied to your home and/or business in Phenix City, Alabama. Last year, as in years past, your tap water met all U.S. Environmental Protection Agency (EPA) and Alabama Department of Environmental Management (ADEM) drinking water health standards. Once again, we are proud to report that our system has not violated a maximum contaminant level or any other water quality standard. If you have any questions or concerns regarding your water or this report, please contact Roger Conner, Utilities Director, at the water office at (334) 448-2880.

## Is my water safe?

Last year, as in years past, your tap water met all U.S. Environmental Protection Agency (EPA) and state drinking water health standards. Once again we are proud to report that our system has not violated a maximum contaminant level or any other water quality standard.

## Do I need to take special precautions?

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/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Water Drinking Hotline (800-426-4791).

## Where does my water come from?

Our water source is surface water from the Chattahoochee River. Water is pumped almost continuously to the Water Filtration Plant for treatment and subsequent delivery to our approximately 14,400 taps.

## How is my water treated?

We use a treatment process consisting of coagulation/flocculation, sedimentation, chlorination and filtration plus the addition of fluoride and a corrosion control agent. The water is then stored before reaching your tap. Please refer to the Water Treatment diagram inside this report for more detail.

## Source Water Protection Tips

Protection of drinking water is everyone's responsibility. You can help protect your community's drinking water source in several ways:

- Eliminate excess use of lawn and garden fertilizers and pesticides. They contain hazardous chemicals that can reach your drinking water source.
- If you have your own septic system, properly maintain your system to reduce leaching to water sources.
- Dispose of chemicals properly (ie motor oil, household chemicals, paint).
- Remember that storm water drains dump directly into your local water body.

## Additional Information for Lead

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. City of Phenix City 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 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>.

## Why are there contaminants in my drinking 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 the water poses a health risk. More information can be obtained by calling the U.S. Environmental Protection Agency's Safe Drinking Water Hotline at (800) 426-4791. The sources of drinking water (both tap and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of 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.

Contaminants that may be present in source water include:

- Microbial contaminants such as viruses, bacteria and protozoa, such as *Cryptosporidium*, that may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- Inorganic contaminants, such as salt and metals that can be naturally occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.
- 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 runoff, and septic systems.
- Radioactive contaminants, which can be naturally occurring or the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contamination in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water.

This water system tests our source water for pathogens, such as *Cryptosporidium* and *Giardia*. These pathogens can enter the water from animal or human waste. For people who may be immunocompromised, a guidance document developed jointly by the EPA and the Center for Disease Control is available online at [www.epa.gov/safewater/crypto.html](http://www.epa.gov/safewater/crypto.html) or from the Safe Drinking Water Hotline at 800-426-4791. This language does not indicate the presence of *Cryptosporidium* in our drinking water. All test results were well within state and federal standards.

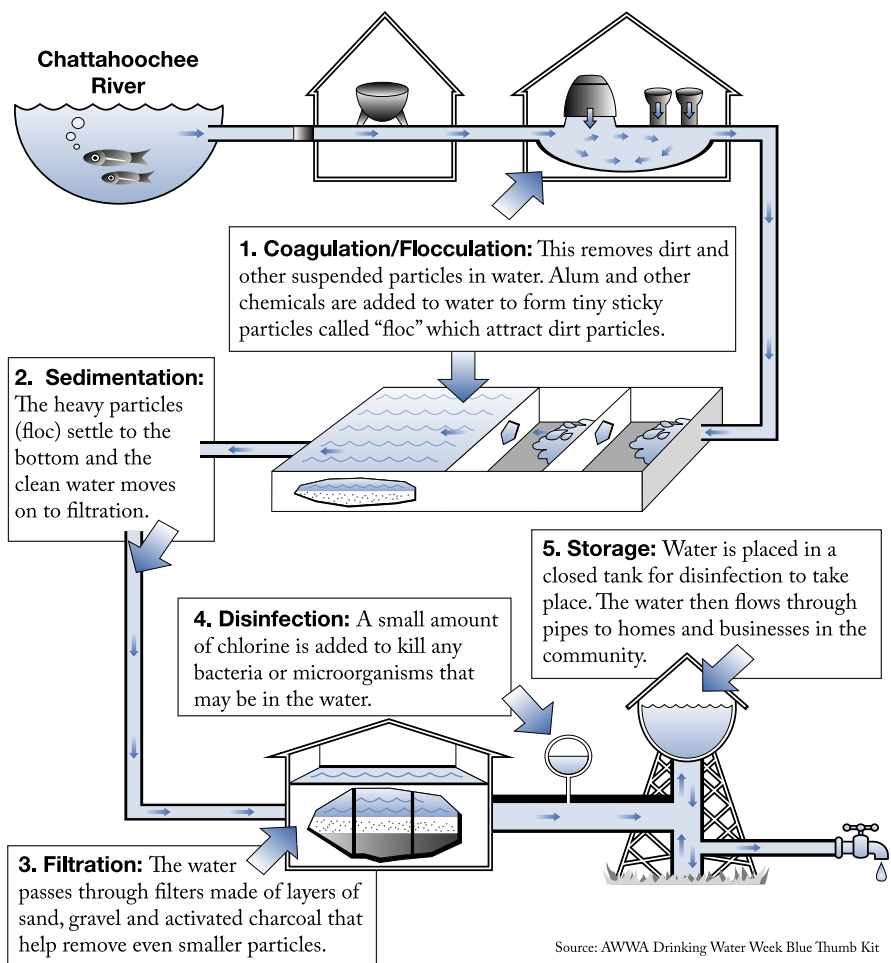
Based on a study conducted by ADEM with the approval of the EPA, a statewide waiver for the monitoring of asbestos and dioxin was issued. Thus, monitoring for these contaminants was not required.

More information about contaminants to drinking water and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at 800-426-4791.



## Unit Descriptions

- **AL (Action Level):** the concentration of a contaminant that, if exceeded, triggers treatment or other requirements.
- **CA (Coliform Absent):** Laboratory analysis indicates that the contaminant is not present.
- **DBP (Disinfection Byproducts):** formed when disinfectants used in water treatment plants react with bromide and/or natural organic matter (i.e., decaying vegetation) present in the source water.
- **IDSE (Initial Distribution System Evaluation):** a study conducted by water systems to identify distribution system locations with high concentrations of TTHM and HAA5.
- **LRAA (Locational Running Annual Average):** yearly average of all the DPB results at each specific sampling site
- **MCL (Maximum Contaminant Level):** 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.
- **MCLG (Maximum Contaminant Level Goal):** 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.
- **MRDL (Maximum Residual Disinfectant Level):** the highest level of a disinfectant allowed in drinking water
- **mrem/yr (Millirems per year):** measure of radiation absorbed by the body.
- **n/a (not applicable)**
- **ND (Non-Detect):** laboratory analysis indicates that the constituent is not present above detection limits of lab equipment.
- **NR (not reported):** laboratory analysis, usually Secondary Contaminants, not reported by water system. EPA recommends secondary standards to water systems but does not require systems to comply.
- **NTU (Nephelometric Turbidity Unit):** a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.
- **ppb (parts per billion) or  $\mu\text{g}/\text{l}$  (micrograms per liter):** one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.
- **ppm (parts per million) or  $\text{mg}/\text{l}$  (milligrams per liter):** one part per million corresponds to one minute in two years or a single penny in \$10,000.
- **ppq (parts per quadrillion) or picograms/l (Picograms per liter):** one part per quadrillion corresponds to one minute in 2,000,000,000 years, or a single penny in \$10,000,000,000,000.
- **ppt (parts per trillion) or nanograms/l (nanograms per liter):** one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.
- **pCi/L (Picocuries per liter):** picocuries per liter is a measure of the radioactivity in water.
- **RAA (running annual average):** average of DBP results in the water system
- **S.U. (Standard Units):** pH of water measures the water's balances of acids and bases. Water with less than 6.5 could be acidic, soft, and corrosive. A pH greater than 8.5 could indicate that the water is hard.
- **TT (Treatment Technique):** a required process intended to reduce the level of a contaminant in drinking water.
- **V&E (Variances & Exemptions):** State or EPA permission not to meet an MCL or a treatment technique under certain conditions.



## Water Conservation Tips

Did you know that the average U.S. household uses approximately 400 gallons of water per day or 100 gallons per person per day? Luckily small changes can make a big difference – try one today.

- Take short showers – a 5-minute shower uses four to five gallons of water compared to 50 gallons for a bath.
- Run your clothes washer and dishwasher only when they are full. You can save up to 1,000 gallons a month.
- Adjust sprinklers so only your lawn is watered, not sidewalks or driveways. Apply water only as fast as the soil can absorb it and during the cooler parts of the day to reduce evaporation.
- Teach your kids about water conservation to ensure a future generation uses water wisely. Make a family effort to reduce next month's water bill!

Visit [www.epa.gov/watersense](http://www.epa.gov/watersense) for more information.

Constituent Monitored	Phenix City
Inorganic Contaminants	2014
Lead/Copper*	2013
Microbiological Contaminants	2014
Nitrates	2014
Radioactive Contaminants*	2014
Synthetic Organic Contaminants (including pesticides and herbicides)	2014
Volatile Organic Compounds	2014
Disinfection By-products	2014

\* The state allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently.

# Water Quality Data Table

Water testing performed in 2014

The state and EPA require us to test our water on a regular basis to ensure its safety. The following table lists all of the drinking water contaminants detected during the calendar year of 2014. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. **Maximum Contaminant Levels (MCL)** are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink two liters of water every day at the MCL for a lifetime to have a one-in-a-million chance of having an adverse health effect.

Contaminant (Units)	MCLG or MRDLG	MCL or MRDL	Your Water	Sample Date	Violation	Typical Source
<b>Disinfectants and Disinfectant By-Products</b>						
There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.						
Chlorine [as Cl <sub>2</sub> ] (ppm)	4	4	1.48 Avg. 0.41-2.17	2014	No	Drinking water disinfectant added for treatment
TTHMs [Total Trihalomethanes] (ppb)	NA	80	30.6 RAA	2014	No	By-product of drinking water disinfection
Haloacetic Acids (HAA5) (ppb)	NA	60	21.1 RAA	2014	No	By-product of drinking water chlorination

Contaminant (Units)	MCLG	MCL	Your Water	Sample Date	Violation	Typical Source
<b>Inorganic Contaminants</b>						
Fluoride (ppm)	4	4	0.64	2014	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate [as NO <sub>3</sub> -N] (ppm)	10	10	0.68	2014	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits

Contaminant (Units)	TT	Your Water	Low	High	Sample Date	Violation	Typical Source
<b>Microbiological Contaminants</b>							
* Turbidity (NTU)	0.3	100%	NA	.21	2014	No	Soil runoff
* 100% of the samples were below the TT value of 0.3. A value less than 95% constitutes a TT violation. The highest single measurement was 0.21 NTU. Any measurement in excess of 1.0 is a violation unless otherwise approved by the state.							

Contaminant (Units)	MCLG	MCL	Your Water	Sample Date	Violation	Typical Source
<b>Radiological Contaminants</b>						
Gross Alpha (pCi/L)	0	15	0.4±0.6	2014	No	Erosion of natural deposits of certain minerals that are radioactive and may emit a form of radiation known as alpha radiation
Radium 228 (pCi/L)	0	5	0.3±0.7	2014	No	Erosion of natural deposits

Contaminant (Units)	Date Sampled	MCLG	AL	Your water (90 <sup>th</sup> %)	# Sites Over AL	Violation	Likely Source of Contamination
<b>Tap Monitoring</b>							
Copper (ppm)	2013	0	1.3	0.103	0	No	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservative
Lead (ppb)	2013	0	15	<0.005	2	No	Corrosion of household plumbing systems, erosion of natural deposits

Contaminant (Units)	Secondary Limit	Your Water	Sample Date	Typical Source
<b>Secondary Contaminants &amp; Other Unregulated Constituents (no associated adverse health effects)</b>				
Alkalinity, Total [as CaCO <sub>3</sub> ] (ppm)	NA	8.1	2014	Naturally occurring soluble mineral salts
Aluminum (ppm)	0.05-0.2	0.070	2014	Erosion of natural deposits, residual from treatment process
Calcium (ppm)	NA	5.15	2014	Abundant naturally occurring element
Carbon Dioxide (ppm)	NA	2.1	2014	
Chloride (ppm)	250	19.2	2014	Various natural and manmade sources. Runoff from fertilizer use; leaching from septic tanks
Color (units)	NA	5	2014	
Hardness [as CaCO <sub>3</sub> ] (ppm)	NA	19.3	2014	Naturally occurring calcium
Magnesium (ppm)	NA	1.56	2014	Abundant naturally occurring element
Manganese (ppm)	0.05	0.023	2014	Abundant naturally occurring element
pH	6.5-8.5	6.06	2014	Measure of corrosivity of water
Sodium (ppm)	NA	13.9	2014	Erosion of natural deposits
Specific Conductance (umhos/cm)	NA	143	2014	Substances that form ions when in water; seawater influence
Sulfate [as SO <sub>4</sub> ] (ppm)	250	18.6	2014	Erosion of natural deposits
Total Dissolved Solids (ppm)	500	100	2014	Natural and manmade; combined total of all inorganic and organic material in water

Contaminant (Units)	Your Water	Sample Date	Typical Source
<b>Unregulated Contaminants</b>			
Chloroform (ppb)	8.5	2014	Disinfection by-product
Bromodichloromethane (ppb)	7.03	2014	Disinfection by-product
Dibromochloromethane (ppb)	3.71	2014	Disinfection by-product

Contaminant (Units)	Your Water		Sample Date
	Highest	Range	
<b>UCMR3*</b>			
Chlorate (ppb)	610	500-610	2014
Chromium-6 (ppb)	0.05	0.05-0.05	2014
1,4-dioxane (ppb)	0.09	0.08-0.09	2014
Molybdenum (ppb)	1.7	1.6-1.7	2014
Strontium (ppb)	39	35-39	2014
Vanadium (ppb)	0.4	0.3-0.4	2014

\* The 1996 Safe Drinking Water Act (SDWA) amendments require that once every five years the EPA issues a new list of no more than 30 unregulated contaminants to be monitored by public water systems (PWSs). The first Unregulated Contaminant Monitoring Rule (UCMR 1) was published on September 17, 1999, the second (UCMR 2) was published on January 4, 2007 and the third (UCMR 3) was published on May 2, 2012. This monitoring provides a basis for future regulatory actions to protect public health. At present, no health standards (for example, MCLs) have been established for Unregulated Contaminants. However, we are required to publish the analytical results of our Unregulated Contaminant monitoring in our annual water quality report. If you would like more information on EPA's Unregulated Contaminants Monitoring Rule, please call the Safe Drinking Water Hotline at (800) 426-4791.