

**2016 Annual Water Quality Report**  
(Testing Performed January through December 2015)

**CENTRE WATER AND SEWER BOARD**

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We are pleased to present to you this year's Annual Water Quality Report. 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.

|                               |   |
|-------------------------------|---|
| <b>Water Source</b>           | Surface water from Weiss Lake   |
| <b>Number of Customers</b>    | Approximately 2350  |
| <b>Storage Capacity</b>       | Three tanks with 975,000 gallons total capacity   |
| <b>Treatment Techniques</b>   | Disinfection, coagulation, settling, filtration<br>Fluoride is added to the finished water to promote dental health |
| <b>Additional Connections</b> | Sell to Northeast Alabama Water System  |
| <b>Water Board</b>            | Mr. Harold Day, Chairman  |
|                               | Mr. Billy Mack Garrett, Secretary/Treasurer   |
|                               | Mr. William McKinney, Board Member  |
| <b>General Manager</b>        | Mr. David Garrett   |

**Source Water Assessment**

In compliance with the Alabama Department of Environmental Management (ADEM), **Centre Water and Sewer Board** has developed a Source Water Assessment plan that will assist in protecting our water sources. This plan provides additional information such as potential sources of contamination. It includes a susceptibility analysis, which classifies potential contaminants as high, moderate, or non-susceptible to contaminating the water source. The assessment has been performed, public notification was completed, and the plan has been approved by ADEM. A copy of the report is available in our office for review during normal business hours, or you may purchase a copy upon request for a nominal reproduction fee. Please help us make these efforts worthwhile by doing what you can to protect our source water.

**Monitoring Schedule**

The Alabama Department of Environmental Management (ADEM) allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. 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.

| <b>Constituents Monitored</b>  | <b>Date Monitored</b> |
|--|-----------------------|
| Inorganic Contaminants   | 2015                  |
| Lead/Copper  | 2013                  |
| Microbiological Contaminants   | current               |
| Nitrates   | 2015                  |
| Radioactive Contaminants   | 2012                  |
| Synthetic Organic Contaminants (including herbicides and pesticides) | 2014                  |
| Volatile Organic Contaminants  | 2015                  |
| Disinfection By-products   | 2015                  |

## General Information

All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. MCL's, defined in a List of Definitions in this report, are set at very stringent levels. To understand the possible health effects described for many regulated constituents, 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 radioactive material, and it 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 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 runoff, 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 runoff, 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 runoff, and septic systems.
- Radioactive contaminants, which can 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. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water. 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. People at risk should seek advice about drinking water from their health care providers. 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.

Your source water is tested for pathogens, such as *Cryptosporidium* and *Giardia*. These pathogens can enter the water from animal or human waste. For people who may be immuno-compromised, a guidance document developed jointly by the Environmental Protection Agency and the Center for Disease Control is available online at [www.epa.gov/safewater](http://www.epa.gov/safewater) or from the Safe Drinking Water Hotline at 800-426-4791. This language does not indicate the presence of cryptosporidium in our drinking water.

## Information about 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. Your water system 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.

Use *only* water from the cold-water tap for drinking, cooking, and especially for making baby formula. Hot water is likely to contain higher levels of lead. The two actions recommended above are very important to the health of your family. They will probably be effective in reducing lead levels because most of the lead in household water usually comes from the plumbing in your house, not from the local water supply. 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](http://www.epa.gov/safewater).

## Questions?

If you have any questions about this report or concerning your water utility, please contact **David Garrett**. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled meetings. They are held on the third Tuesday of each month at the Water Works office at 5:00 p.m.

More information about contaminants to drinking water and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at (1-800-426-4791).

We have learned through our monitoring and testing that some constituents have been detected. We are pleased to report that our drinking water meets or exceeds federal and state requirements.

| TABLE OF DETECTED DRINKING WATER CONTAMINANTS |                  |                       |              |         |        |  |
|---|------------------|-----------------------|--------------|---------|--------|--|
| Contaminants                                  | Violation<br>Y/N | Level<br>Detected     | Unit<br>Msmt | MCLG    | MCL    | Likely Source<br>of Contamination  |
| Chlorine                                      | NO               | 1.00-2.94             | ppm          | MRDLG=4 | MRDL=4 | Water additive used to control microbes  |
| Total Organic Carbon                          | NO               | 1.61-1.97             | ppm          | n/a     | TT     | Soil runoff  |
| Turbidity                                     | NO               | Highest 0.10          | NTU          | n/a     | TT     | Soil runoff  |
| Alpha emitters                                | NO               | 1.7                   | PCi/l        | 0       | 15     | Erosion of natural deposits  |
| Copper  | NO               | 0.300 *<br>0 > AL     | ppm          | 1.3     | AL=1.3 | Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives |
| Fluoride                                      | NO               | 0.52                  | ppm          | 4       | 4      | Erosion of natural deposits; water additive which promotes strong teeth; discharge from factories      |
| Nitrate (as Nitrogen)                         | NO               | 0.48                  | ppm          | 10      | 10     | Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits            |
| TTHM [Total trihalomethanes]                  | NO               | RAA 41.8<br>21.1-63.4 | ppb          | 0       | 80     | By-product of drinking water chlorination  |
| HAA5 [Total haloacetic acids]                 | NO               | RAA 26.8<br>17.7-34.8 | ppb          | 0       | 60     | By-product of drinking water chlorination  |
| <b>Unregulated Contaminants</b>               |                  |                       |              |         |        |  |
| Chloroform                                    | NO               | 7.89                  | ppb          | n/a     | n/a    | Naturally occurring in the environment or from industrial discharge or agricultural runoff             |
| Bromodichloromethane                          | NO               | 5.68                  | ppb          | n/a     | n/a    | Naturally occurring in the environment or from industrial discharge or agricultural runoff             |
| Chlorodibromomethane                          | NO               | 2.21                  | ppb          | n/a     | n/a    | Naturally occurring in the environment or from industrial discharge or agricultural runoff             |
| <b>Secondary Contaminants</b>                 |                  |                       |              |         |        |  |
| Chloride                                      | NO               | 12.2                  | ppm          | n/a     | 250    | Naturally occurring in the environment or from industrial discharge or agricultural runoff             |
| Hardness                                      | NO               | 59.4                  | ppm          | n/a     |        | Naturally occurring in the environment or from industrial discharge or agricultural runoff             |
| pH  | NO               | 7.69                  | S.U.         | n/a     | n/a    | Naturally occurring in the environment or from industrial discharge or agricultural runoff             |
| Sodium  | NO               | 15.9                  | ppm          | n/a     | n/a    | Naturally occurring in the environment   |
| Sulfate                                       | NO               | 40.2                  | ppm          | n/a     | 250    | Naturally occurring in the environment or from industrial discharge or agricultural runoff             |
| Total Dissolved Solids                        | NO               | 124                   | ppm          | n/a     | 500    | Naturally occurring in the environment or from industrial discharge or agricultural runoff             |

\* Figure shown is 90<sup>th</sup> percentile and # of sites above action level (1.3 ppm) = 0

## DEFINITIONS

**Action Level-** the concentration of a contaminant that, if exceeded, triggers treatment or other requirements which a water system must follow.

**Coliform Absent (ca)-** Laboratory analysis indicates that the contaminant is not present.

**Disinfection byproducts (DBPs)-** are 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. Different disinfectants produce different types or amounts of disinfection byproducts. Disinfection byproducts for which regulations have been established include trihalomethanes (THM), haloacetic acids (HAA5), bromate, and chlorite.

**Initial Distribution System Evaluation (IDSE)-**a one-time study conducted by water systems to identify distribution system locations with high concentrations of trihalomethanes (THMs) and haloacetic acids (HAAs).

**Locational Running Annual Average (LRAA)-**yearly average of all the DPB results at each specific sampling site in the distribution system. The highest distribution site LRAA is reported in the Table of Detected Contaminants.

**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 (MRDL)-**the highest level of a disinfectant allowed in drinking water

**Micrograms per liter (ug/L) –** Equivalent to parts per billion (ppb) since one liter of water is equal in weight to one billion micrograms.

**Milligrams per liter (mg/L) –** Equivalent to parts per million

**Millirems per year (mrem/yr)-**measure of radiation absorbed by the body.

**Nephelometric Turbidity Unit (NTU)-**a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

**Non-Detects (ND)-** laboratory analysis indicates that the constituent is not present above detection limits of lab equipment.

**Not Reported (NR)-**laboratory analysis, usually Secondary Contaminants, not reported by water system. EPA recommends secondary standards to water systems but does not require systems to comply.

**Parts per billion (ppb) or Micrograms per liter (µg/l)-**one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

**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 quadrillion (ppq) or Picograms per liter (picograms/l)-**one part per quadrillion corresponds to one minute in 2,000,000,000 years, or a single penny in \$10,000,000,000,000.

**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.

**Picocuries per liter (pCi/L)-**picocuries per liter is a measure of the radioactivity in water.

**RAA-Running annual average**

**Standard Units (S.U.)-pH** of water measures the water's balances of acids and bases and is affected by temperature and carbon dioxide gas. 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.

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

**Variances & Exemptions (V&E)-**State or EPA permission not to meet an MCL or a treatment technique under certain conditions.

At the end of this report is a *Table of Primary Drinking Water Contaminants*. These contaminants were *not* detected in your water unless they appear in the *Table of Detected Contaminants*.

| STANDARD LIST OF PRIMARY DRINKING WATER CONTAMINANTS |                      |                            |  |     |              |
|--|----------------------|----------------------------|--|-----|--------------|
| Contaminant  | MCL                  | Unit of Msmt               | Contaminant  | MCL | Unit of Msmt |
| <b>Bacteriological Contaminants</b>                  |                      |                            | trans-1,2-Dichloroethylene                         | 100 | ppb          |
| Total Coliform Bacteria                              | <5%                  | present or absent          | Dichloromethane                                    | 5   | ppb          |
| Fecal Coliform and E. coli                           | 0                    | present or absent          | 1,2-Dichloropropane                                | 5   | ppb          |
| Turbidity  | TT                   | NTU                        | Di (2-ethylhexyl)adipate                           | 400 | ppb          |
| Cryptosporidium                                      | TT                   | Calculated organisms/liter | Di (2-ethylhexyl)phthalate                         | 6   | ppb          |
| <b>Radiological Contaminants</b>                     |                      |                            | Dinoseb  | 7   | ppb          |
| Beta/photon emitters                                 | 4                    | mrem/yr                    | Dioxin [2,3,7,8-TCDD]                              | 30  | ppq          |
| Alpha emitters                                       | 15                   | pCi/l                      | Diquat   | 20  | ppb          |
| Combined radium                                      | 5                    | pCi/l                      | Endothall  | 100 | ppb          |
| Uranium  | 30                   | pCi/l                      | Endrin   | 2   | ppb          |
| <b>Inorganic Chemicals</b>                           |                      |                            | Epichlorohydrin                                    | TT  | TT           |
| Antimony   | 6                    | ppb                        | Ethylbenzene                                       | 700 | ppb          |
| Arsenic  | 10                   | ppb                        | Ethylene dibromide                                 | 50  | ppt          |
| Asbestos   | 7                    | MFL                        | Glyphosate   | 700 | ppb          |
| Barium   | 2                    | ppm                        | Heptachlor   | 400 | ppt          |
| Beryllium  | 4                    | ppb                        | Heptachlor epoxide                                 | 200 | ppt          |
| Cadmium  | 5                    | ppb                        | Hexachlorobenzene                                  | 1   | ppb          |
| Chromium   | 100                  | ppb                        | Hexachlorocyclopentadiene                          | 50  | ppb          |
| Copper   | AL=1.3               | ppm                        | Lindane  | 200 | ppt          |
| Cyanide  | 200                  | ppb                        | Methoxychlor                                       | 40  | ppb          |
| Fluoride   | 4                    | ppm                        | Oxamyl [Vydate]                                    | 200 | ppb          |
| Lead   | AL=15                | ppb                        | Polychlorinated biphenyls (PCBs)                   | 0.5 | ppb          |
| Mercury  | 2                    | ppb                        | Pentachlorophenol                                  | 1   | ppb          |
| Nitrate  | 10                   | ppm                        | Picloram   | 500 | ppb          |
| Nitrite  | 1                    | ppm                        | Simazine   | 4   | ppb          |
| Selenium   | .05                  | ppm                        | Styrene  | 100 | ppb          |
| Thallium   | .002                 | ppm                        | Tetrachloroethylene                                | 5   | ppb          |
| <b>Organic Contaminants</b>                          |                      |                            | Toluene  | 1   | ppm          |
| 2,4-D  | 70                   | ppb                        | Toxaphene  | 3   | ppb          |
| Acrylamide   | TT                   | TT                         | 2,4,5-TP(Silvex)                                   | 50  | ppb          |
| Alachlor   | 2                    | ppb                        | 1,2,4-Trichlorobenzene                             | .07 | ppm          |
| Benzene  | 5                    | ppb                        | 1,1,1-Trichloroethane                              | 200 | ppb          |
| Benzo(a)pyrene [PAHs]                                | 200                  | ppt                        | 1,1,2-Trichloroethane                              | 5   | ppb          |
| Carbofuran   | 40                   | ppb                        | Trichloroethylene                                  | 5   | ppb          |
| Carbon tetrachloride                                 | 5                    | ppb                        | Vinyl Chloride                                     | 2   | ppb          |
| Chlordane  | 2                    | ppb                        | Xylenes  | 10  | ppm          |
| Chlorobenzene  | 100                  | ppb                        | <b>Disinfectants &amp; Disinfection Byproducts</b> |     |              |
| Dalapon  | 200                  | ppb                        | Chlorine   | 4   | ppm          |
| Dibromochloropropane                                 | 200                  | ppt                        | Chlorine Dioxide                                   | 800 | ppb          |
| o-Dichlorobenzene                                    | 600                  | ppb                        | Chloramines  | 4   | ppm          |
| p-Dichlorobenzene                                    | 75                   | ppb                        | Bromate  | 10  | ppb          |
| 1,2-Dichloroethane                                   | 5                    | ppb                        | Chlorite   | 1   | ppm          |
| 1,1-Dichloroethylene                                 | 7                    | ppb                        | HAA5 [Total haloacetic acids]                      | 60  | ppb          |
| cis-1,2-Dichloroethylene                             | 70                   | ppb                        | TTHM [Total trihalomethanes]                       | 80  | ppb          |
| <b>UNREGULATED CONTAMINANTS</b>                      |                      |                            |  |     |              |
| 1,1 - Dichloropropene                                | Aldicarb             | Chloroform                 | Metolachlor  |     |              |
| 1,1,1,2-Tetrachloroethane                            | Aldicarb Sulfone     | Chloromethane              | Metribuzin   |     |              |
| 1,1,2,2-Tetrachloroethane                            | Aldicarb Sulfoxide   | Dibromochloromethane       | N - Butylbenzene                                   |     |              |
| 1,1-Dichloroethane                                   | Aldrin               | Dibromomethane             | Naphthalene  |     |              |
| 1,2,3 - Trichlorobenzene                             | Bromobenzene         | Dicamba                    | N-Propylbenzene                                    |     |              |
| 1,2,3 - Trichloropropane                             | Bromochloromethane   | Dichlorodifluoromethane    | O-Chlorotoluene                                    |     |              |
| 1,2,4 - Trimethylbenzene                             | Bromodichloromethane | Dieldrin                   | P-Chlorotoluene                                    |     |              |
| 1,3 - Dichloropropane                                | Bromoform            | Hexachlorobutadiene        | P-Isopropyltoluene                                 |     |              |
| 1,3 - Dichloropropene                                | Bromomethane         | Isopropylbenzene           | Propachlor   |     |              |
| 1,3,5 - Trimethylbenzene                             | Butachlor            | M-Dichlorobenzene          | Sec - Butylbenzene                                 |     |              |
| 2,2 - Dichloropropane                                | Carbaryl             | Methomyl                   | Tert - Butylbenzene                                |     |              |
| 3-Hydroxycarbofuran                                  | Chloroethane         | MTBE                       | Trichlorofluoromethane                             |     |              |