

2019 JUN -7 PM 2: 58

2018 CERTIFICATION

Consumer Confidence Report (CCR)

City of Greenville

Public Water System Name

0760004

List PWS ID #s for all Community Water Systems included in this CCR

The Federal Safe Drinking Water Act (SDWA) requires each Community Public Water System (PWS) to develop and distribute a Consumer Confidence Report (CCR) to its customers each year. Depending on the population served by the PWS, this CCR must be mailed or delivered to the customers, published in a newspaper of local circulation, or provided to the customers upon request. Make sure you follow the proper procedures when distributing the CCR. **You must email, fax (but not preferred) or mail, a copy of the CCR and Certification to the MSDH.** Please check all boxes that apply.

- Customers were informed of availability of CCR by: *(Attach copy of publication, water bill or other)*
 - Advertisement in local paper *(Attach copy of advertisement)*
 - On water bills *(Attach copy of bill)*
 - Email message *(Email the message to the address below)*
 - Other _____

Date(s) customers were informed: / /2019 / / /2019 / / /2019

- CCR was distributed by U.S. Postal Service or other direct delivery. Must specify other direct delivery methods used _____

Date Mailed/Distributed: 6/3/2019

- CCR was distributed by Email *(Email MSDH a copy)* Date Emailed: / /2019
 - As a URL _____ *(Provide Direct URL)*
 - As an attachment
 - As text within the body of the email message

- CCR was published in local newspaper. *(Attach copy of published CCR or proof of publication)*

Name of Newspaper: _____
Date Published: / /

- CCR was posted in public places. *(Attach list of locations)* Date Posted: / /2019

- CCR was posted on a publicly accessible internet site at the following address: _____ *(Provide Direct URL)*

CERTIFICATION

I hereby certify that the CCR has been distributed to the customers of this public water system in the form and manner identified above and that I used distribution methods allowed by the SDWA. I further certify that the information included in this CCR is true and correct and is consistent with the water quality monitoring data provided to the PWS officials by the Mississippi State Department of Health, Bureau of Public Water Supply

Walter Henry - Operator
Name/Title (Board President, Mayor/Owner, Admin. Contact, etc.)

6-7-2019
Date

Submission options (Select one method ONLY)

Mail: (U.S. Postal Service)
MSDH, Bureau of Public Water Supply
P.O. Box 1700
Jackson, MS 39215

Email: water.reports@msdh.ms.gov

Fax: (601) 576 - 7800

****Not a preferred method due to poor clarity****

CCR Deadline to MSDH & Customers by July 1, 2019!

City of Greenville
2018 Drinking Water Quality Report
(PWS ID# 0760004)

Spanish (Español)

Este informe contiene información muy importante sobre la calidad de su agua potable. Por favor lea este informe o comuníquese con alguien que pueda traducir la información.

Is my water safe?

Our Quality Assurance personnel collected approximately 700 individual samples from locations throughout the city during 2018. These samples were submitted to and tested by the Mississippi State Department of Health. This report is a snapshot of last year's water quality. Included are details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. We are committed to providing you with this information because informed customers are our best allies.

Do I need to take special precautions?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immune-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 comes from twelve wells located throughout the city. All of these wells draw water from the Cockfield Aquifer at a depth of approximately 600 feet. All are interconnected through approximately 250 miles of large diameter distribution pipes. The distribution piping includes cast iron, ductile iron, galvanized steel, and Polyvinylchloride. We chlorinate and fluoridate the ground water prior to its injection into the distribution system at all well sites. At this time no other treatment is required under the Safe Drinking Water Act.

How much water is produced by the water system daily?

The combined total production of the water system varies with demand. The theoretical maximum production capacity is 22,320,000 gallons per day. A typical daily production is 7,500,000 gallons per day.

Why is our water brown?

The Cockfield aquifer includes strata of prehistoric plant material that the water must travel through to reach our wells. These strata release tannins into the water in the form of dissolved solids. These solids are bound to the water molecules. This makes the color extremely difficult to remove.

Can the color be filtered out?

Customers can filter some of the color out with whole-house filters. These filters utilize activated carbon, zeolites, and/or other naturally occurring minerals. The City has investigated the feasibility of utilizing a variety of technologies to remove the color from the water. The capital cost of installing treatment systems at each well range from \$2.0 - \$2.7 million per well.

Source water assessment and its availability:

Our source water assessment has been completed by the Mississippi State Department of Health. The report is available for review at the Office of the Public Works Director.

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 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 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:

Microbial contaminants, such as viruses and bacteria, that 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 agricultural, urban 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; and radioactive contaminants, which can be naturally occurring or be the results 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 contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

How can I get involved?

Our city council conducts its meetings on the first and third Tuesday of each month at 4:00 p.m. We encourage all citizens who have any questions or concerns regarding their water service or other public services that the city provides to meet with us. We ask that customers who have questions concerning their water bills or regarding disruptions in service to please first contact the City of Greenville Water Department at 378-1580. For other technical concerns as to water quality utilize the telephone numbers listed below. You may also e-mail any comments or questions to us at donde.baldwin@clearwatersol.com or mkeamey@greenvillems.org.

How Does Our Water Compare to Others?

For 2018 the City of Greenville Water System scored a **4.7 out of 5.0** on its Annual Sanitary Survey conducted by the Mississippi Department of Health.

Other information:

To comply with the "Regulation Governing Fluoridation of Community Water Supplies", the City of Greenville is required to report certain results pertaining to fluoridation of our water system. The number of months in the previous calendar year that average fluoride sample results were within optimal range of 0.6 - 1.2 ppm was 8. The percentage of fluoride samples collected in the previous calendar year that was within the optimal range of 0.6 - 1.2 ppm was 85%. For general information about the City of Greenville, you can view our home page on the internet at <http://www.greenvillems.org>. Or you may want additional information about your drinking water. You may contact our certified waterworks operators listed below or you may prefer to log on to the Internet and obtain specific information about your system and its compliance history at the following address: <http://www.msdh.state.ms.us/watersupply/index.htm> Information including current and past boil water notices, compliance and reporting violations, and other information pertaining to your water supply including "Why, When, and How to Boil Your Drinking Water" and "Flooding and Safe Drinking Water" may be obtained.

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 Greenville is responsible for providing high quality drinking water, but cannot control the variety of materials used in home plumbing components, primarily found in buildings constructed before 1986. 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, 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>. You can also insist that your plumber use only Lead Free fixtures, pipes, and solder.

The City of Greenville water system (MS0760004) had no violations for 2018.

In 2018 your water system tested for 21 Volatile Organic Compounds: 1,2,4-Trichlorobenzene, CIS-1,2-Dichloroethylene, Total Xylenes, Dichloromethane, O-Dichlorobenzene, P-Dichlorobenzene, Vinyl Chloride, 1,1-Dichloroethylene, Trans-1,2-Dichloroethylene, 1,2-Dichloroethane, 1,1,1-Trichloroethane, Carbon Tetrachloride, 1,2-Dichloropropane, Trichloroethylene, 1,1,2-Trichloroethane, Tetrachloroethylene, Chlorobenzene, Benzene, Toluene, Ethylbenzene, Styrene. All of the listed Volatile Organic Compounds had test results of less than 0.5 part per billion (ppb). The Maximum Contaminant Level (MCL) for the listed Volatile Organic Compounds ranged from 5ppb to 10,000ppb.

For More Information please contact Milton Kearney // 340 Main Street // Greenville, MS 38701 // 662-378-1608 // 662-378-1508(fax) // mkeamey@greenvillems.org. The Greenville Public Works Department maintains a presence on www.facebook.com. For up-to-date information go to www.facebook.com and search for Greenville, Mississippi Public Works Department.

Water Quality Data Table

Contaminants	MCLG	MCL,	Your	Range		Sample	Violation	Typical Source
	or	TT, or		Water	Low			
Disinfectants & Disinfection By-Products (There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.)								
Haloacetic Acids (HAA5) (ppb)	NA	60	Average 18.0	3	40	2017	No	By-product of drinking water chlorination
THMs [Total Trihalomethanes] (ppb)	NA	80	Average 47	7.87	105	2017	No	By-product of drinking water disinfection
Chlorine (CL2) (ppm)	4.0	4.0	Average 0.20	0.00	2.10	2018	No	Chlorine is classified as a contaminant but is added to the water for disinfection purposes.
Inorganic Contaminants								
Antimony (ppb)	6	6	<0.5	NA		2016	No	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder; test addition.
Arsenic (ppb)	0	10	<0.6	NA		2016	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Asbestos (MFL)	7	7	ND					Decay of asbestos cement water mains; Erosion of natural deposits
Barium (ppm)	2	2	0.0070	NA		2016	No	Erosion of natural deposits
Cadmium (ppb)	5	5	<0.5	NA		2016	No	Corrosion of galvanized pipes, Erosion of natural deposits
Chromium (ppb)	100	100	0.0008	NA		2016	No	Erosion of natural deposits
Fluoride (ppm)	4	4	0.90	0.6	1.20	2018	No	Erosion of natural deposits
Mercury [Inorganic] (ppb)	2	2	0.0003	NA		2016	No	Erosion of natural deposits
Nitrate [measured as Nitrogen] (ppm)	10	10	ND	NA		2018	No	Erosion of natural deposits
Nitrite [measured as Nitrogen] (ppm)	1	1	0.04	ND	0.30	2018	No	Erosion of natural deposits
Selenium (ppb)	50	50	0.002	NA		2016	No	Erosion of natural deposits
Radium 226			0.30	ND	0.30	2018	No	Erosion of natural deposits
Gross Alpha, INCL Radon			9.1	ND	9.1	2018	No	Erosion of natural deposits
Copper - action level at consumer taps (ppm)	1.3	1.3	0.30	2016		0	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead - action level at consumer taps (ppm)	0	0.015	0.002	2016		0	No	Corrosion of household plumbing systems; Erosion of natural deposits

Unit Descriptions	
Term	Definition
Ppm	ppm: parts per million, or milligrams per liter (mg/L)
Ppb	ppb: parts per billion, or micrograms per liter (µg/L)
MFL	MFL: million fibers per liter, used to measure asbestos concentration
NA	NA: not applicable
ND	ND: Not detected
NR	NR: Monitoring not required, but recommended.

Important Drinking Water Definitions	
Term	Definition
MCLG	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.
MCL	MCL: Maximum Contaminant Level: 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.
TT	TT: Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
AL	AL: Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Variances and Exemptions	Variances and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.
MRDLG	MRDLG: Maximum residual disinfection level goal. 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.
MRDL	MRDL: Maximum residual disinfectant level. 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.
MNR	MNR: Monitored Not Regulated
MPL	MPL: State Assigned Maximum Permissible Level

UNREGULATED CONTAMINANTS

Disinfectants & Disinfection By-Products (There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.)	MRDLG	MRDL	Water	Low	High	Date	Violation	Typical Source
	Manganese			9.3	0.61	9.3ug/L	2018	No
Bromide			1790	261	1790ug/L	2018	No	Likely source is Naturally occurring
Total Organic Carbon			1340	1160	1340ug/L	2018	No	Likely source is Naturally occurring
HAA5			22.6	12.06	22.6ug/L	2018	No	Likely source is ByProduct of chlorine disinfection
HAA6Br			28.4	4	28.4ug/L	2018	No	Likely source is ByProduct of chlorine disinfection
HAA9			44.2	15.3	44.2ug/L	2018	No	Likely source is ByProduct of chlorine disinfection

Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose on unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

What is FOG?

FOG refers to Fats, Oils and Grease (FOG) from food preparation, food service and kitchen clean-up. Grease is found in most discarded foods, including:

- Meat fats (bacon, sausage, beef, pork, chicken, lamb);
- Food scraps, pastries, baked goods;
- Lard, butter, margarine, cooking oil;
- Salad dressing, mayonnaise; and
- Dairy (milk, ice cream, yogurt, sour cream, cream sauces, cheese).

It's important to know how to properly dispose of FOG to avoid potential environmental problems that may result in violations and possibly, costly fines.

Why is FOG Management Important?

Fats, Oils, and Grease (FOG) represent one of the largest problems for sewer utilities and their customers. Fats, Oils and Grease (FOG) harden when cooled and form solids that stick to the inside of sewer pipes. This restricts the flow of sewage and can clog the pipes causing overflows into yards and streets.

Clogged sewers due to coagulated grease are thought to be the leading cause of sewer overflows. Overflows can occur in manholes in streets and cleanouts in yards. Over the last few months the City of Greenville has started evaluating the sewer system. Sewer mains are being pressure washed and televised. A large portion of the sewer mains televised to date show signs of FOG buildup in the pipes. The easiest way to prevent FOG-related blockages is to keep FOG out of the sewer system. This means changing our habits on how we dispose of FOG.

Importance of Preventing Sewer Overflows

Blockages due to coagulated grease in pipes are thought to be the leading cause of sanitary sewer overflows (SSOs). SSOs are backups in either the public sewer or residential plumbing. The easiest way to solve grease problems and prevent blockages is to keep FOG out of the sewer system. Although often unintentional, the injection of FOG into the sewer system poses a significant risk to household plumbing and public sewer systems.

Disposal Tips for Your Home

- Place food scraps into a can or the trash for disposal. Put strainers in sink drains to catch food scraps and other solids. Empty the strainers into the garbage for disposal.
- Do not put meat scraps or food scraps containing FOG down a garbage disposal. This will also help eliminate unpleasant odors coming from the garbage disposal.
- For small amounts of cooking oil or grease, soak it up with paper towels and throw them in the garbage.
- For amounts greater than a cup but less than a pint, pour FOG into a container and freeze it. Place the frozen grease and container in the garbage on the day it is collected.
- For larger amounts of oil, such as from a fryer or deep fat fryer of more than 1 gallon, call the Greenville Fire Department.

Preventing sewer backups protects public health, the environment, and saves everyone money.

- The EPA (Environmental Protection Agency) has mandated that the City of Greenville eliminate SSOs.
- Grease related blockages can:
 - Cause the sewer to backup into your home through sinks, drains and toilets.
 - Create backup of sewage into streets, parks, yards and waterways causing public health risks and environmental concerns.
- Raw sewage contains disease-causing organisms that can be harmful to both people and animals.
- Clean up and repairs for damage caused by sewer backups are expensive, unhealthy and unpleasant.
- FOG-related grease blockages increase the City's operating and maintenance costs resulting in higher bills for all.

For additional information, please contact us:

Greenville Fire Department
532 Central Avenue
Greenville, MS 38701

662-378-1616