

ANNUAL
**WATER
QUALITY
REPORT**

WATER TESTING PERFORMED IN 2015

Presented By
**Oconee County
Utility Department**

Meeting the Challenge

Once again we are proud to present our annual drinking water report, covering the Counties drinking water testing performed between January 1 and December 31, 2015. Over the years, we have dedicated ourselves to producing drinking water that meets all State and Federal standards. We continually strive to adopt new methods for delivering the highest-quality drinking water to your homes and businesses. As new challenges to drinking water safety emerge, we remain vigilant in meeting the goals of source water protection, water conservation, and community education, while continuing to serve the needs of all of our water users.

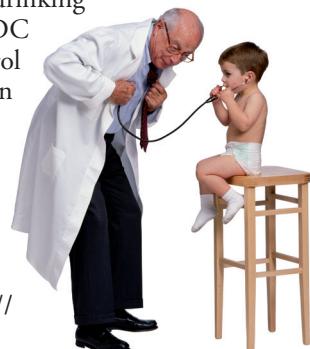
Please remember that we are available to assist you, should you ever have any questions or concerns about your water.

Community Participation

You are invited to attend the Oconee County Board of Commissioners meetings. The Board meets on the first and last Tuesday of each month at the Oconee County Courthouse. Please visit www.oconeecounty.com or call (706) 769-5120 for meeting times.

Important Health Information

Some individuals may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as those with cancer undergoing chemotherapy, those who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants may be particularly at risk from infections. These people should seek advice from their health care providers about drinking water. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791 or <http://water.epa.gov/drink/hotline>.



Substances That Could Be in Water

To ensure that tap water is safe to drink, the U.S. EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water that must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that the water poses a health risk.

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, in some cases, radioactive material, and substances resulting from the presence of animals or from human activity. Substances 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, or wildlife;

Inorganic Contaminants, such as salts and metals, which can be naturally occurring or may result from urban stormwater 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, urban stormwater runoff, and residential uses;

Organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production and may also come from gas stations, urban stormwater runoff, and septic systems;

Radioactive Contaminants, which can be naturally occurring or may be the result of oil and gas production and mining activities.

For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

Source Water Assessment

A Source Water Assessment Plan (SWAP) is now available at our office. This plan is an assessment of the delineated area around our listed sources through which contaminants, if present, could migrate and reach our source water. It also includes an inventory of potential sources of contamination within the delineated area and a determination of the water supply's susceptibility to contamination by the identified potential sources.

According to the Source Water Assessment Plan, our water system had a susceptibility rating of MEDIUM. If you would like to review the Source Water Assessment Plan, please feel free to contact our office during regular office hours.

Where Does My Water Come From?

The Oconee County Utility Department operates 9 groundwater wells permitted by the State of Georgia. We withdraw 5 percent of our drinking water from these wells. Oconee County imports 95 percent of its water from the Upper Oconee Basin Water Authorities Treatment Plant (www.bearcreekwtp.com). Bear Creek WTP withdraws water into Bear Creek Reservoir from the Middle Oconee River and Bear Creek. Oconee County also imports small amounts of drinking water from Barrow County and Athens-Clarke County Unified Government.

Lead in Home Plumbing

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. We are responsible for providing high-quality drinking water, but we 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 at (800) 426-4791 or at www.epa.gov/lead.

Flint Michigan Water Crisis

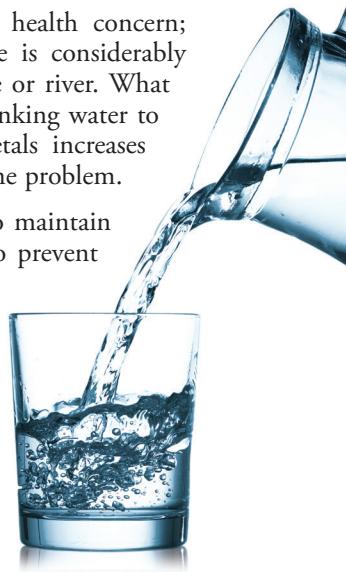
The national news coverage of water conditions in the City of Flint, Michigan, has created a great deal of confusion and consternation over the past year. The water there has been described as being corrosive; images of corroded batteries and warning labels on bottles of acids come to mind. But is corrosive water necessarily unhealthy to drink?

Corrosive water can be defined as a condition of water quality that will dissolve metals (iron, lead, copper, etc.) from metallic plumbing at an excessive rate. There are a few contributing factors but, generally speaking, corrosive water has a pH of less than 7; the lower the pH, the more acidic, or corrosive, the water becomes. (By this definition, many natural waterways throughout the country can be described as corrosive.) While all plumbing will be somewhat affected over time by the water it carries, corrosive water will damage plumbing much more rapidly than water with low corrosivity.

By itself, corrosive water is not a health concern; your morning glass of orange juice is considerably more corrosive than the typical lake or river. What is of concern is that exposure in drinking water to elevated levels of the dissolved metals increases adverse health risks. And there lies the problem.

Public water systems are required to maintain their water at optimal conditions to prevent it from reaching corrosive levels.

Rest assured that we monitor our water in accordance with the EPA Lead and Copper Rule to make sure that what happened in Flint never happens here. For more information on how corrosivity affects water quality, download this informative pamphlet: <http://goo.gl/KpTmXv>.



QUESTIONS?

For more information about this report, or for any questions relating to your drinking water, please call Wayne Haynie, Utility Director, at (706) 769-3960 or send email to whaynie@oconee.ga.us.



You may not be aware of it, but every time you pour fat, oil, or grease (FOG) down your sink (e.g., bacon grease), you are contributing to a costly problem in the sewer collection system. FOG coats the inner walls of the plumbing in your house as well as the walls of underground piping throughout the community. Over time, these greasy materials build up and form blockages in pipes, which can lead to wastewater backing up into parks, yards, streets, and storm drains. These backups allow FOG to contaminate local waters, including drinking water. Exposure to untreated wastewater is a public health hazard. FOG discharged into septic systems and drain fields can also cause malfunctions, resulting in more frequent tank pump-outs and other expenses.

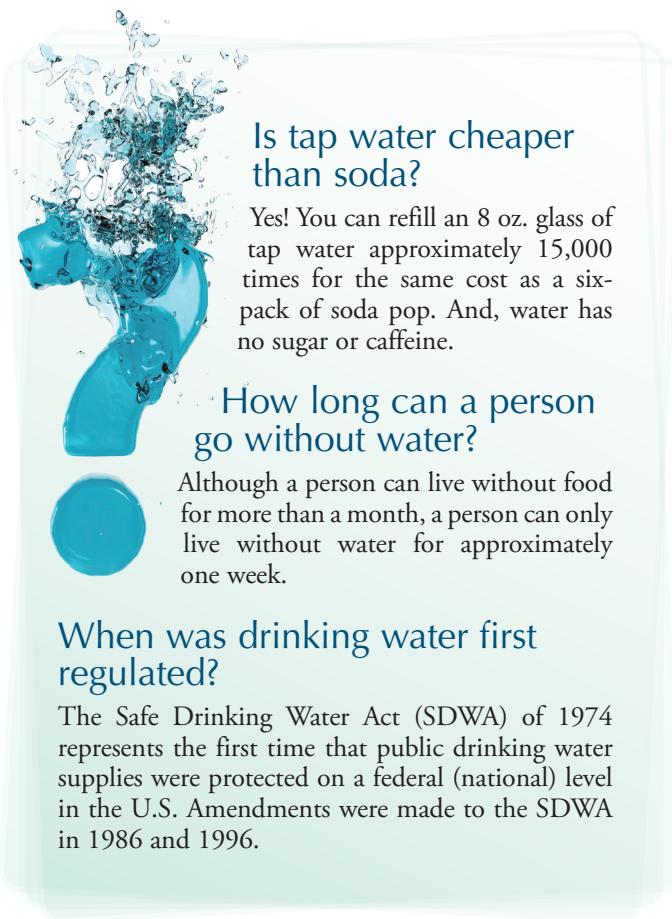
Communities spend billions of dollars every year to unplug or replace grease-blocked pipes, repair pump stations, and clean up costly and illegal wastewater spills. Here are some tips that you and your family can follow to help maintain a well-run system now and in the future:

NEVER:

- Pour fats, oil, or grease down the house or storm drains.
- Dispose of food scraps by flushing them.
- Use the toilet as a waste basket.

ALWAYS:

- Scrape and collect fat, oil, and grease into a waste container such as an empty coffee can, and dispose of it with your garbage.
- Place food scraps in waste containers or garbage bags for disposal with solid wastes.
- Place a wastebasket in each bathroom for solid wastes like disposable diapers, creams and lotions, and personal hygiene products including nonbiodegradable wipes.



Is tap water cheaper than soda?

Yes! You can refill an 8 oz. glass of tap water approximately 15,000 times for the same cost as a six-pack of soda pop. And, water has no sugar or caffeine.

How long can a person go without water?

Although a person can live without food for more than a month, a person can only live without water for approximately one week.

When was drinking water first regulated?

The Safe Drinking Water Act (SDWA) of 1974 represents the first time that public drinking water supplies were protected on a federal (national) level in the U.S. Amendments were made to the SDWA in 1986 and 1996.

Naturally Occurring Bacteria

The simple fact is, bacteria and other microorganisms inhabit our world. They can be found all around us: in our food; on our skin; in our bodies; and in the air, soil, and water. Some are harmful to us and some are not. Coliform bacteria are common in the environment and are generally not harmful themselves. The presence of this bacterial form in drinking water is a concern because it indicates that the water may be contaminated with other organisms that can cause disease. Throughout the year, we tested many water samples for coliform bacteria. In that time, none of the samples came back positive for the bacteria.

Federal regulations require that public water that tests positive for coliform bacteria must be further analyzed for fecal coliform bacteria. Fecal coliform are present only in human and animal waste. Because these bacteria can cause illness, it is unacceptable for fecal coliform to be present in water at any concentration. Our tests indicate no fecal coliform is present in our water.

Sampling Results

During the past year, we have taken hundreds of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic, or synthetic organic contaminants. The tables below show only those contaminants that were detected in the water. The State requires us to monitor for certain substances less often than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

We participated in the 3rd stage of the EPA's Unregulated Contaminant Monitoring Rule (UCMR3) program by performing additional tests on our drinking water. UCMR3 benefits the environment and public health by providing the EPA with data on the occurrence of contaminants suspected to be in drinking water, in order to determine if the EPA needs to introduce new regulatory standards to improve drinking water quality. Contact us for more information on this program.

REGULATED SUBSTANCES

				Oconee County Utility Dept.		Bear Creek WTP			
Substance (Unit of Measure)	Year Sampled	MCL [MRDL]	MCLG [MRDLG]	Amount Detected	Range Low-High	Amount Detected	Range Low-High	Violation	Typical Source
Chlorine (ppm)	2015	[4]	[4]	0.88	0.40–1.39	1.83	0.45–2.9	No	Water additive used to control microbes
Chromium (ppb)	2015	100	100	0.39	0.088–1.4	NA	NA	No	Discharge from steel and pulp mills; Erosion of natural deposits
Fluoride (ppm)	2015	4	4	NA	NA	0.83	0.59–1.5	No	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories
Haloacetic Acids [HAAs] (ppb)	2015	60	NA	28.66	17.6–36	33.7	19–58	No	By-product of drinking water disinfection
Nitrate (ppm)	2015	10	10	2.0	1.2–2.0	0.28	0–0.28	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
TTHMs [Total Trihalomethanes] (ppb)	2015	80	NA	45.50	26.5–79.5	44	19–96	No	By-product of drinking water disinfection
Total Organic Carbon (ppm)	2015	TT	NA	NA	NA	1.4	1.2–1.5	No	Naturally present in the environment
Turbidity ¹ (NTU)	2015	TT	NA	NA	NA	0.06	0.02–0.06	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2015	TT = 95% of samples < 0.3 NTU	NA	NA	NA	100	NA	No	Soil runoff

Tap water samples were collected for lead and copper analyses from sample sites throughout the community

Substance (Unit of Measure)	Year Sampled	AL	MCLG	Amount Detected (90th%tile)	Sites Above AL/Total Sites	Violation	Typical Source
Copper (ppm)	2013	1.3	1.3	0	0/30	No	Corrosion of household plumbing systems; Erosion of natural deposits

SECONDARY SUBSTANCES - OCONEE COUNTY UTILITY DEPT.

Substance (Unit of Measure)	Year Sampled	SMCL	MCLG	Amount Detected	Range Low-High	Violation	Typical Source
Fluoride (ppm)	2015	2.0	NA	0.92	0.68–1.12	No	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories
pH (Units)	2015	6.5–8.5	NA	7.7	7.1–8.2	No	Naturally occurring

UNREGULATED SUBSTANCES

		Oconee County Utility Dept.		Bear Creek WTP		
Substance (Unit of Measure)	Year Sampled	Amount Detected	Range Low-High	Amount Detected	Range Low-High	Typical Source
Bromodichloromethane (ppb)	2015	NA	NA	6.6	0–6.6	Disinfection by-product
Chlorodibromomethane (ppb)	2015	NA	NA	1.6	0–1.6	Disinfection by-product
Chloroform (ppb)	2014	37	16–68	15 ²	0–15 ²	Disinfection by-product
Dibromomethane (ppb)	2014	1.46	0–2.3	NA	NA	Disinfection by-product
Dichlorodifluoromethane (ppb)	2014	8.29	5.0–11	NA	NA	Disinfection by-product

UNREGULATED CONTAMINANT MONITORING RULE PART 3 (UCMR3) - OCONEE COUNTY UTILITY DEPT.

Substance (Unit of Measure)	Year Sampled	Amount Detected	Range Low-High	Typical Source
Strontium (ppb)	2015	74.87	24.3–214	Naturally occurring in the minerals celestine, putnisite and strontianite
Vanadium (ppb)	2015	0.68	0.18–2.0	Found almost exclusively in chemically combined form in nature
p-Dioxane (ppb)	2015	0.47	0.36–0.57	Classified as an ether; Used mainly as a stabilizer for the solvent trichloroethane

¹Turbidity is a measure of the cloudiness of the water. It is monitored because it is a good indicator of the effectiveness of the filtration system.

²Sampled in 2015.

Definitions

AL (Action Level): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

LRAA (Locational Running Annual Average): The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters. Amount Detected values for TTHMs and HAAs are reported as LRAAs.

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.

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. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

MRDLG (Maximum Residual Disinfectant 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.

NA: Not applicable

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

SMCL (Secondary Maximum Contaminant Level): SMCLs are established to regulate the aesthetics of drinking water like taste and odor.

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