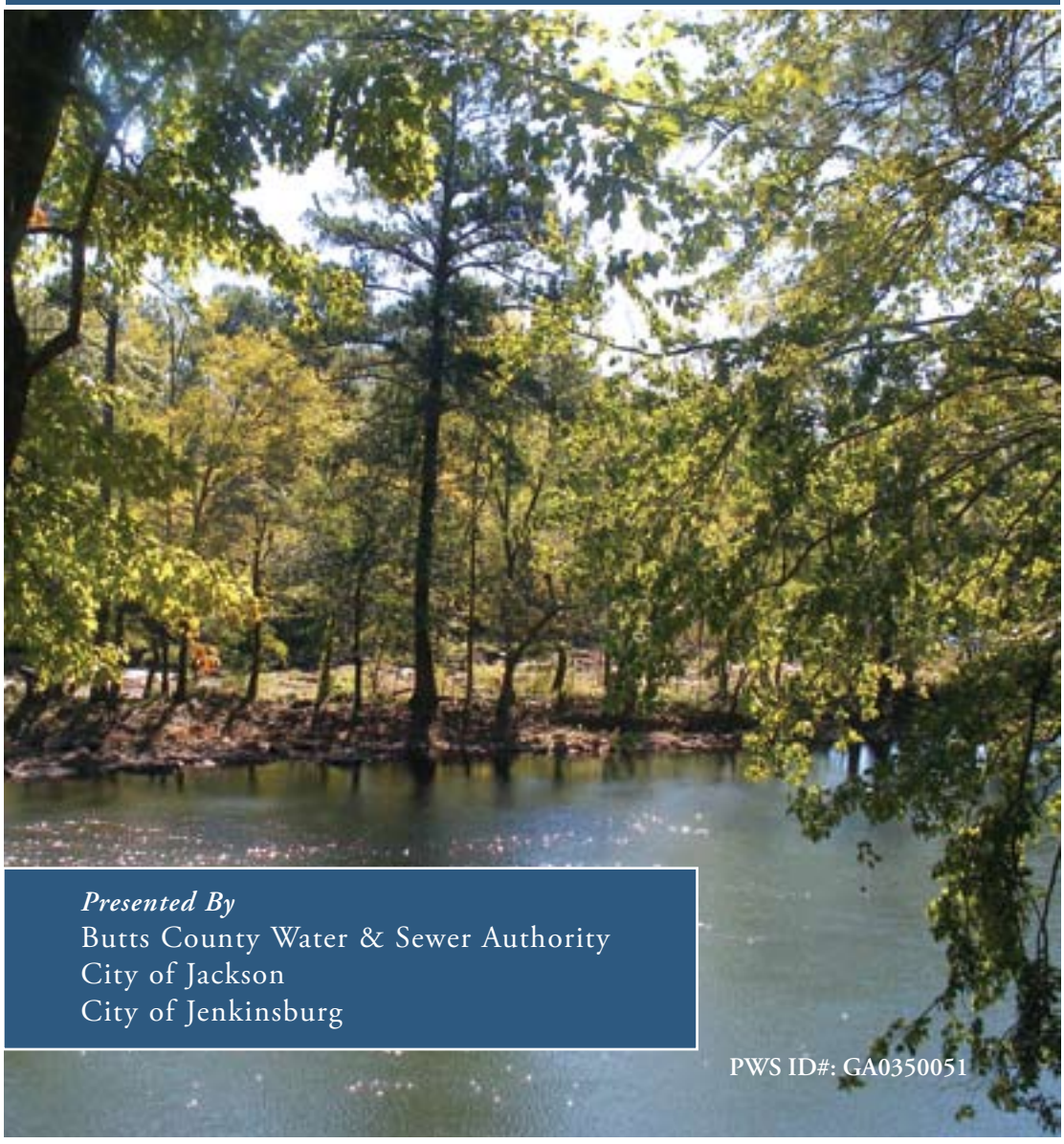
Annual WATER QUALITY REPORT

Reporting Year 2011



Presented By
Butts County Water & Sewer Authority
City of Jackson
City of Jenkinsburg

PWS ID#: GA0350051

Water–It's More Precious Than Gold

Water is a constant in our daily lives. We need it to drink, cook, and clean. We need it for sanitation, fire protection, watering our lawns, and washing our cars. We need it to live.

As partners in water supply, we at the Butts County Water & Sewer Authority, City of Jackson, and City of Jenkinsburg are working twenty-four hours a day to deliver high-quality water to our customers. Whether it is making sure that enough water is available when the supply is low, or ensuring adequate pressure levels for fire protection and your morning shower, our staffs understand how critical water is to your daily life.

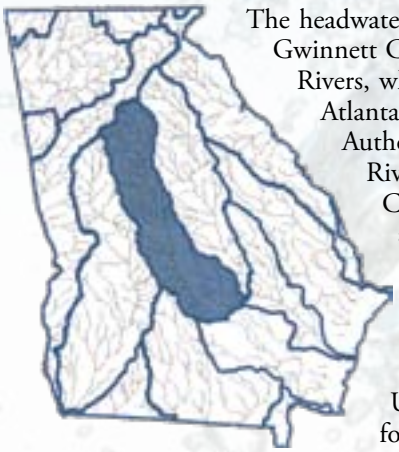
This water quality report covers all testing performed between January 1 and December 31, 2011. We are glad to again report that, with the thousands of samples taken throughout the year, there were no violations of State or Federal requirements. Both of our water treatment plants have been awarded the coveted 2011 Platinum Award by the Georgia Association of Water Professionals for consistent conformance with all State and Federal regulations for five or more years in a row.

This report also includes a notice on the exceedance of the allowable turbidty (cloudiness) limit that occurred on February 18, 2012. This was not an emergency, and there was no evidence of contamination found in water testing, but it is our duty to inform you in writing of the violation.

We are proud to have been given the opportunity to serve you.

Where Does My Water Come From?

We have a blended surface water supply from the Ocmulgee and Towaliga Rivers. Both rivers are a part of the Upper Ocmulgee watershed. Combined, our treatment facilities provide roughly 800 million gallons of clean drinking water every year.



The headwaters of the Ocmulgee Basin are located in DeKalb and Gwinnett Counties and consist of the Alcovy, Yellow, and South Rivers, which drain the eastern and southeastern metropolitan Atlanta region. These rivers join at Jackson Lake. The Authority's intake is located near where the Ocmulgee River flows out of Jackson Lake dam in east Butts County. Water from the Ocmulgee River is treated at the Emerson L. Burford plant. This plant has a capacity of 4.0 million gallons per day. It is owned and operated by the Butts County Water & Sewer Authority.

The Towaliga Watershed is located within the larger Upper Ocmulgee watershed. The Towaliga River forms from smaller streams in southern Henry County and eastern Spalding County. This watershed has been impounded in several areas upstream from Jackson's intake for Henry County's water supply. The City of Jackson's intake is on the Towaliga in west Butts County. Water from the Towaliga River is treated at the Gerald L. "Buck" Stewart plant. This plant has a capacity of 1.0 million gallons per day. It is owned by the City of Jackson and operated by the Butts County Water & Sewer Authority.

Source Water Assessment

Georgia's Source Water Assessment Program is aimed at protecting public drinking water supplies at the source—the rivers, lakes, and streams all across Georgia. As part of this program, a source water assessment was done for our intakes several years ago.

The Upper Ocmulgee River Basin has a large degree of urban activity from the metropolitan Atlanta area. While our watershed profile identified a number of potential pollution sources to the north, it rates susceptibility of the Ocmulgee intake as "Low," due to the distance of the intakes from potential pollution sites and the minimum likelihood of significant releases from identified pollution sources. Copies of the Source Water Assessments are available for public review at the Authority's office at 100 West Second Street in Jackson.

The Authority has also developed a detailed Watershed Assessment and Plan for the Towaliga Basin because we have a wastewater treatment facility in that basin. We continue to test waters in the Towaliga River, Cabin Creek, and Brushy Creek to monitor for quality changes that may take place due to development in this basin.

We encourage our customers to become active in protecting the Ocmulgee River, the Towaliga River, and other local waterways by participating with groups in our area such as the Jackson Lake Homeowners Association, the High Falls/Towaliga Watershed Alliance, the Altamaha Riverkeeper, and the Georgia River Network.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. 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.

Questions?

For any questions relating to your drinking water or for more information, please call Marcie R. Seleb, General Manager of the Authority by phone at (770) 775-0042, write her in e-mail at mseleb@buttswsa.com, or visit our web site: www.buttswsa.com.

Community Participation

You are invited to participate in our regular meetings. The Butts County Water & Sewer Authority's Board of Directors meets at 5:30 p.m. on the second Tuesday of each month at the Authority's office at 100 West Second Street in Jackson. The Jackson City Council meets at 7:00 p.m. on the first and third Tuesdays of each month at the Jackson Municipal Court Building, 132 South Mulberry Street in Jackson. The Jenkinsburg City Council meets at 7:00 p.m. on the second and fourth Mondays of each month at 7:00 p.m. at the Jenkinsburg City Hall, 311 Maple Drive in Jenkinsburg.

How Is My Water Treated and Purified?

The treatment process consists of a series of steps that clarify, filter, and disinfect the water delivered to your home or business. Plant operators carefully monitor this treatment process 24 hours a day, performing numerous lab tests to ensure quality. Please call Water Production Superintendent Herbert Head by phone at (770) 775-2827 or reach him by e-mail at hhead@buttswsa.com for more information or to arrange a water plant tour.

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. Because there are no known lead service lines in our system and because the corrositivity of our waters supply is minimized, testing has consistently shown only extremely low levels of lead, usually in homes with brass fixtures that have a lead component.

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 you use 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 www.epa.gov/safewater/lead.

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, which 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.

Water Main Flushing

Our system of distribution mains covers about 300 miles. The water entering the distribution mains is of very high quality; however, water quality can deteriorate in areas of the distribution mains over time. Water main flushing is the process of cleaning the interior of water distribution mains by sending a rapid flow of water through the mains. The Authority, Jackson, and Jenkinsburg do a unidirectional system-wide flush of the mains once per year. We also flush dead-end mains on a more frequent schedule and have a few automatic hydrant flushing devices in our system.

Flushing maintains water quality in several ways. For example, flushing removes sediments like iron and manganese. Although iron and manganese do not pose health concerns, they can affect the taste, clarity, and color of the water. Additionally, sediments can shield microorganisms from the disinfecting power of chlorine, contributing to the growth of microorganisms within distribution mains. Flushing helps remove stale water and ensures the presence of fresh water with sufficient dissolved oxygen and disinfectant levels, and an acceptable taste and smell.

During flushing operations in your neighborhood, some short-term deterioration of water quality, though uncommon, is possible. You should avoid tap water for household uses at that time. If you do use the tap, allow your cold water to run for a few minutes at full velocity before use, and avoid using hot water, to prevent sediment accumulation in your hot water tank.

Notice of Exceedence of Maximum Turbidity Level

On February 18, 2012, our water system violated a drinking water standard that requires a mailed customer notification. We are including the notification within this mailing of our 2011 Water Quality Report. Although this incident was not an emergency, as our customers, you have a right to know what happened, what you should do, and what we did to correct this situation.

We routinely monitor your water for turbidity (cloudiness). This tells us whether we are effectively filtering the water supply. Normal turbidity levels at our plant are less than 0.3 turbidity units. On February 18, 2012, our filtered water turbidity exceeded the standard of 1.0 turbidity unit. Turbidity in excess of 5 NTU is just noticeable to the average person. Because of this level of turbidity, there was an increased chance that the water could have contained disease-causing organisms.

In this situation, plant operation staff did not properly adjust treatment chemicals during an increase in water treatment flow at the Emerson Burford Water Treatment Plant. Water was pumped into the system at a turbidity exceeding 1 NTU for a period of approximately two hours. Once the chemical feed was properly adjusted, the turbidity returned to acceptable levels.

You do not need to take any action. If there is ever an imminent danger of water contamination, we will contact customers immediately through emergency public health announcements. We do not know of any contamination from the February 18th violation, and none of our testing has shown disease-causing organisms in the drinking water.

Turbidity itself has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. High turbidity levels may thus indicate the presence of disease-causing organisms. Such organisms include bacteria, viruses, and parasites which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

Sampling Results

During the past year we have taken thousands 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. It's important to note that none of the substances shown exceeds allowable limits. We are simply required to show any detections, even for substances like the fluoride that we add to our water to fight tooth decay.

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.

REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Chlorine (ppm)	2011	[4]	[4]	2.0	0.1–2.0	No	Water additive used to control microbes
Fluoride (ppm)	2011	4	4	0.79	0.72–0.91	No	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories
Haloacetic Acids [HAA] (ppb)	2011	60	NA	27.2	21.2–38.5	No	By-product of drinking water disinfection
TTHMs [Total Trihalomethanes] (ppb)	2011	80	NA	57.9	34.3–83.0	No	By-product of drinking water disinfection
Total Organic Carbon (ppm)	2011	TT	NA	1.6	1.2–1.9	No	Naturally present in the environment
Turbidity (NTU)	2011	TT	NA	0.29	0.03–0.29	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2011	TT	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)	2010	1.3	1.3	0.14	0/30	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	2010	15	0	2.5	0/30	No	Corrosion of household plumbing systems; Erosion of natural deposits

Definitions

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

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).

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