

City of Byron
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Water Quality Report
For Jan-Dec 2009

INTRODUCTION

The City of Byron is pleased to report to you again this year that the drinking water we supply to you is safe to drink. The quality of our municipal drinking water surpasses federal and state mandates for drinking water. The Safe Drinking Water Act (SDWA) is the primary regulation that ensures the health and safety of the public as they consume our nation's drinking water. The SDWA Amendments of 1996 require water systems to prepare and distribute a Consumer Confidence Report (CCR)—otherwise known as an annual Water Quality Report. This report for 2009 is intended to let you, our customer, know how and what we are doing to provide you with healthy drinking water and the quality service you deserve.

We would like for you to understand more about your water system and hope this report answers questions you might have. We welcome your comments and invite you to visit us so we can show you our water pumping and treatment facilities. Our employees are involved in civic organizations and are pleased to offer information and speakers to the community on water protection, water treatment, water conservation, as well as provide tours of our facilities. For more information about your water or this report, please call the **primary contact**, the City of Byron Public Works, Billy McDaniel, Director of Public Works, at (478) 956-2411.

INFORMATION ABOUT YOUR WATER SYSTEM

The Georgia Environmental Protection Division (EPD) issued a **permit** to the City of Byron to operate the Byron Water System—GA Water System ID #2250000. Your water comes from three municipal groundwater wells that are over 460 feet deep. This water source is called the Cretaceous Sand Aquifer System and provides ample volumes of water for our community. The Cretaceous Sand Aquifer is confined by bedrock, which helps prevent contamination from surface sources. Well # 1 is located on Thames Road, and its water tank has a storage capacity of 75,000 gallons of treated water. Well # 2 is located at the Public Works facility at 104 New Dunbar Road, and the tank can store 250,000 gallons of treated water. Well #3 is located on James E. Williams Industrial Drive; the treated water capacity of the tank is 500,000 gallons. The elevated storage tanks provide water pressure as well as storage for firefighting requirements. We perform treatment at each of these wells to include disinfection with chlorine to make the water biologically safe, fluoride to aid in the prevention of dental cavities, and lime to make the water non-corrosive, which protects metal pipes and fixtures. Our **Wellhead Protection Plan** helps us protect each well from activities that could potentially cause contamination of our valuable water source.

Additionally, the **Source Water Assessment** conducted on our three wells describes any potential pollution sources (PPS) to our water system. The susceptibility to pollution of our wells is minimal. Within the control zones a very slight susceptibility to pollution exists from fuels or other spills from vehicles parked there and from diesel powered generators at two of the wells. The attachment provides a summary list of the potential pollution sources in both the control and management zones. To obtain a copy of the source water assessment, please call Billy McDaniel, Director of Public Works, at (478) 956-2411.

Our water system continues to grow. During 1999, a third well was drilled east of I-75 at the North Peach Industrial Park on James E. Williams Industrial Drive. The new well and treatment plant, with the Big Peach water tower, became fully operational October 2000. This new well also utilizes the outstanding water from the Cretaceous Sand Aquifer. The water tower has a storage capacity of 500,000 gallons of treated water and has been painted to give the illusion of a giant peach, to honor Peach County and the Peach State in which you reside. In addition to bringing attention to Byron, the new well and state of the art pumping and treatment facility doubled our pumping capacity, and ensures a safe and reliable source of municipal drinking water well into the future.

DRINKING WATER INFORMATION

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 EPA's Safe Drinking Water Hotline 1-800-426-4791.

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 consult with their health care providers concerning drinking water. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline 1-800-426-4791.

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, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

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.

Contaminants that may be present in source water include the following:

- *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 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 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.

WATER QUALITY DATA

The tables below list the drinking water contaminants that were detected during the **2009 calendar year**. The presence of these contaminants in the water does not necessarily indicate the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done January 1 - December 31, 2009. EPD requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, is more than one year old.

TERMS & ABBREVIATIONS USED BELOW:

Maximum Contaminant Level Goal (MCLG): 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 Contaminant Level (MCL): 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.

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

Sampling Waiver: Must be issued by EPD. Waivers of sampling requirements are for specified contaminants and must be based on both a vulnerability assessment and the analytical results of previous sampling. The vulnerability assessment may be based on a determination that either the contaminant has not been used in the area or that the source water is not susceptible to contamination. Currently, Byron has been issued waivers for two inorganic compounds and 41 synthetic organic contaminants.

n/a: not applicable - **n/d:** not detectable at testing limit - **ppb:** parts per billion or micrograms per liter - **ppm:** parts per million or milligrams per liter - **pCi/l:** picocuries per liter (a measure of radiation)

Maximum Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbiological contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG): 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.

Detected Inorganic Contaminants Table

<u>Parameter/Units</u>	<u>MCL</u>	<u>MCLG</u>	<u>Byron</u> Water System Results	<u>Range of detections</u>	<u>Sample Date</u>	<u>Violation No/Yes</u>	<u>Typical Source of Contaminant</u>
Fluoride (ppm)	4.0	4.0	0.91	0.39-1.05	2009	No	Water additive which promotes strong teeth, erosion of natural deposits
Nitrate (ppm)	10.0	10.0	0.81	0.59-0.91	08/12/2009	No	Erosion of natural deposits; Runoff from fertilizer use; Leaching from septic tanks, sewage

Detected Organic Contaminants Table

<u>Parameter/Units</u>	<u>MRDL</u>	<u>MRDLG</u>	<u>Byron</u> Water System Results	<u>Range of detections</u>	<u>Sample Date</u>	<u>Violation No/Yes</u>	<u>Typical Source of Contaminant</u>
Chlorine (ppm)	4	4	.6	.6-.6	2009	No	Water additive to control microbes

Lead may be found in household plumbing fixtures such as service lines, pipes, solders and fluxes, as well as brass and bronze fixtures. Lead is found throughout the environment in the air, soil, water, and household dust. Lead is also found in consumer products such as food, lead-based paint, pottery, porcelain and pewter. We tested for lead in drinking water at 40 selected sites, twice in 2009. The results are shown in the table below.

Copper. Major sources of copper in drinking water are corrosion of household plumbing systems, erosion of natural deposits and leaching from wood preservatives. In August 2009 draw samples were collected from sites for copper content, as well as lead. The results are shown in the table below.

Lead and Copper Monitoring - Results from 80 Samples

<u>Parameter/Units</u>	<u>Action Level</u>	<u>MCLG</u>	<u>Byron Average Water System Results</u>	<u># of sample sites found to be above the Action Level</u>	<u>Violation No/Yes</u>	<u>Sample Date</u>	<u>Typical Source of Contaminant</u>
Lead/ug/l	15	15	1.8	0	No	Jun & Oct 2009	Corrosion of household plumbing
Copper/ug/l	1300	1300	387	0		Jun & Oct 2009	Corrosion of household plumbing

The city draws a minimum of 80 samples a year for **microbiological contaminants**. All samples taken during the year were received at the lab on time and no traces of microbiological evidence were detected.

Is our water system meeting other rules that govern our operations? EPA and EPD require us to test our water on a regular basis to ensure its safety. For example, chlorine, fluoride, and pH levels are monitored every day, recorded, then sent to EPD on a monthly report. During 2009, we had no deviations or infractions for any tests on our water. Protecting your water is a high priority for our operators. We are here to serve you - our valuable families, friends, neighbors, customers. Please let us know how we are doing. One thing you can do to help: **CONSERVE WATER**, our precious resource.

WATER CONSERVATION

Our water supplies, nationwide, are increasingly stressed, making all of us more susceptible to the impacts of drought. Conservation is the first line of defense against water shortages. Here are some things you can do to conserve water:

1. **Restrict outdoor water use.** Governor Perdue announced on June 10, 2009 that due to significant rainfall and improved water supplies the Georgia Environmental Protection Division issues a non-drought schedule for outdoor water use for the first time since June 2006.
2. **Use indoor water more efficiently.** For example, fix leaks and don't let the water run while brushing your teeth.

Water shortages can occur with drought or without drought conditions (for example, pump breakdown). Please practice year-round conservation; it is the cheapest way to save our valuable drinking water. Ask for *Every Drop Counts*, a tri-fold brochure available at City Hall and Public Works.

Individual copies of this report will not be mailed; however, copies are available upon request at Byron City Hall and at the Department of Public Works. City Hall hours of operation are from 8:30 A.M. to 5:30 P.M. Monday through Friday. The Public Works Department hours of operation are 8:00 A.M. to 5:00 P.M. Monday through Friday. This report will be posted on the www.byronga.com

Attachment:

PPS Summary List

(This list is not available online. To review a copy, please contact the Public Works Department.)