

City of Royston Water Quality Report-2011

Community Water System Identification Number-1190004

In 2011, the City of Royston Water System conducted over 1,500 laboratory tests for more than 80 drinking water parameters. We produced over 137,247,000 gallons of safe drinking water. We are proud to inform you that the City of Royston did not have any violations of water quality parameters during 2011. Included in this report is information about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. Your water department is committed to providing our community with clean, safe, and reliable drinking water. For more information about your water or this report please call James Watson at 706-245-6472.

Your combined water source is the North Fork of the Broad River, and a well located on Brooks Street. this property is protected from activities which could potentially cause contamination of this water source. We perform treatment to each of these sources to include removal of contaminants and chlorine disinfections.

Your City Council meets the second Tuesday of each month at 6:30 p.m. in the Court Room at the Royston Police Department. Your participation or comments are welcome at these meetings. Information concerning our water assessments and contaminant susceptibility can be obtained from the City of Royston Water Treatment Plant.

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 (800) 426-4791.

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. These people should seek advice about drinking water from their health care providers. 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 (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.

Contaminants that may be present in source water before we treat it 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 runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming. If present, elevated levels of lead in drinking water can cause serious health problems in pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The city of Royston 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. 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 to minimize exposure is available from the Safe Drinking Water Hotline or <http://www.epa.gov/safewater/lead>.

**Pesticides and herbicides*, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential use.

**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 stormwater 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 regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

Your water system is an active participant in the community. Our employees are involved in many civic organizations and are pleased to offer information and speakers to the community on water protection, water treatment, as well as provide tours of our facilities.

WATER QUALITY DATA

The table below lists all the drinking water contaminants that we detected during the 2011 calendar year. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done January 1-December 31, 2011. 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:

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

Environmental Protection Agency (EPA): The United States Environmental Protection Agency.

Environmental Protection Division (EPD): The Georgia Department of Natural Resources Environmental Protection Division.

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.

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 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.

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

n/a: not applicable – **nd:** not detectable at testing limit – **ppb:** parts per billion or micrograms per liter – **ppm:** parts per million or milligrams per liter – **NTU:** nephelometric turbidity units, measurement of suspended material in water.

Microbiological Contaminants Table					
Parameter	MCL	MCLG	Royston Water System	Violation	Typical Source of Contaminant
Total Coliform Bacteria	0	0	0	No	Naturally present in the environment

Disinfectants Table						
Parameter	MRDL	MRDLG	Royston Water System	Range of Detections	Violation	Typical Source of Contaminant
Chlorine ppm	4.0	4.0	1.53	0.2 to 2.40	No	Water additive used to control microbes

Parameter	MCL	MCLG	Royston Water System	Range of Detections	Violation	Typical Source of Contaminant
Fluoride ppm	4.0	4.0	.82	.76-1.08	No	Water additive which promotes strong teeth
Nitrate/Nitrite ppm	10	10	.90	0.90 to 0.90	No	Runoff from fertilizer use; leaching from septic tanks, sewage, erosion of natural deposits

Organic Contaminants Table						
Parameter	MCL	MCLG	Royston Water System	Range of Detections	Violation	Typical Source of Contaminant
Total Trihalomethanes (TTHMs) ppb	80	n/a	*24	0-43	No	By-product of drinking water chlorination
Haloacetic acids (HAA5) ppb	60	n/a	*13	0-31	No	By-product of drinking water disinfection
Total Organic Carbon (TOC) ppm	TT	n/a	.99	.69-1.3	No	Naturally present in the environment
Chloroform ppb	n/a	n/a	*10.9	0-47	No	By-product of drinking water disinfection
Bromodichloromethane ppb	n/a	n/a	*3.6	0/-2.4	No	By-product of drinking water disinfection
Chlorodibromomethane ppb	n/a	n/a	*1.05	/0-1.2	No	By-product of drinking water disinfection

*This number represents the highest quarterly rolling annual average reported during 2011.

Lead and Copper Contaminant Table					
Parameter	AL	MCLG	90 th percentile value	# of sites above the AL	Typical Source of Contaminant
Lead/ppb	15	0	0	0	Corrosion of household plumbing
Copper/ppm	1.3	1.3	.038	0	Corrosion of household plumbing

Turbidity Table						
Parameter	AL	MCLG	Result	Range of Detections	Violation	Typical Source of Contaminant

Turbidity (NTU)	TT=< 0.3	n/a	.05	.01 to .27	No	Soil runoff and erosion
Turbidity (NTU)	TT=Percentage of samples <0.3 NTU	n/a	100%	n/a	No	Soil runoff and erosion

Turbidity is a measure of the cloudiness of water. We monitor turbidity to indicate the effectiveness of our filtration system.

DRINKING WATER MONITORING WAIVER CERTIFICATE

City of Royston, WSID 1190004, Royston, has complied with all of the base monitoring requirements for the parameters listed below. The chemical analytical results of this system's water samples, and the vulnerability assessments, prepared by EPD, demonstrate that the water system's distributed drinking water complies with the chemical monitoring requirements of the Georgia Rules for Safe Drinking Water. This water system is hereby issued monitoring waivers, by EPD, for the below listed synthetic organic compounds from January 1, 2011, to midnight, December 31, 2011.

PARAMETERS: Alachlor, Aldicarb, Aldicarb Sulfone, Aldicarb Sulfoxide, Atrazine, Benzo (A) Pyrene, Carbofuran, Chloradane, Dalapon, Di (2-Ethylhexyl) Adipate, Dibromochloropropane (DBCP), Dinoseb, Diquat, Di (2-Ethylhexyl) Phthalate, Endothall, Endrin, Ethylene Dibromide (EDB), Glyphosate, Heptachlor, Heptachlor Epoxide, Hexachlorobenzene, Hexachlorocyclopentadiene, Lindane, Methoxychlor, Oxymyl (Vydate), Pentachlorophenol, Picloram, Polychlorinated Biphenyls (PCBs), Simazine, 2, 4-D, Toxaphene, 2, 4, 5-TP (Silvex), 2, 3, 7, 8-TCDD (Dioxin).

About Nitrate: Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask for advice from your health care provider.

Is our water system meeting other rules that govern our operations? EPD and EPA require us to test our water on a regular basis to ensure its safety.