



ROCK HILL

SOUTH CAROLINA

Always on.

ROCK HILL UTILITIES

WATER SYSTEM #4610002

2013 WATER QUALITY CONSUMER CONFIDENCE REPORT

Through the Safe Drinking Water Act (SDWA), the Environmental Protection Agency (EPA) requires public water systems meet national drinking water standards to ensure that the health of water consumers is carefully protected.

All public water systems must publish an annual Consumer Confidence Report that tells how the drinking water standards are achieved. The EPA allows this report to be posted on the City's website for customer viewing or printing. If you would like this report mailed to you, please call Customer Service at 803-325-2500 to request a paper copy.

Rock Hill Utilities is committed to being "Always on." City staff will continue their endeavor to provide safe, reliable drinking water that exceeds drinking water regulatory standards.

On behalf of the City of Rock Hill Utilities Department, I am pleased to present the 2013 Water Quality Consumer Confidence Report (CCR). This report contains information about where your water comes from, what it contains, and why that is important.

Rock Hill Utilities values the trust you put in its staff every day to safeguard the quality and reliability of your drinking water. As part of the safeguard process, Rock Hill Utilities' staff monitors the water plant processes 24 hours a day, 365 days a year. State certified operators utilize a central monitoring system to observe water treatment functions, including tank levels, pressures, and flows. Staff also performs over 700,000 tests per year to validate the treatment processes and to assure the quality of the drinking water in the distribution system.

The City of Rock Hill strives to provide its citizens and customers with an uninterrupted supply of safe drinking water. You and your family can feel secure in knowing that the City of Rock Hill provides drinking water that continues to exceed drinking water regulatory standards. Rock Hill Utilities is "Always on" for you. Thank you for your business.

Mark Kettlewell, PE
City Engineer, Water and Sewer Utilities

Rock Hill Utilities Water Treatment and Distribution System

Miles of Water Main Lines:
498 miles

Number of Fire Hydrants Maintained:
2,890 hydrants

Number of Elevated Water Tanks:
5 tanks

Number of Water Meters:
34,640 meters

Average Daily Consumption:
13.8 million gallons per day

Annual Water Consumption:
5,050,945,000 gallons

Maximum Plant Capacity:
36 million gallons per day

Population Served:
90,000 (Rock Hill, York & Fort Mill)



Why Water Is Important To You

To ensure that tap water is safe to drink, the EPA prescribes stringent maximum contaminant levels (MCLs) for certain contaminants in water supplied by public water systems.

All sources of drinking water are subject to potential contamination by substances that are naturally occurring or man made. All drinking water, including *bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants in drinking water does not necessarily indicate the 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 at 1-800-426-4791. You can also visit the EPA's web site at: www.epa.gov/safewater.

The sources of both drinking water and tap water include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over land surfaces and underground, it dissolves naturally occurring minerals, radioactive minerals and can pick up substances resulting from the presence of animals and human activity.

Contaminants that might 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 and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, farming, mining, industrial or domestic wastewater discharges or oil and gas production.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff or residential uses.
- Organic chemical, 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.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water results primarily from materials and components associated with service lines and home plumbing.

The City of Rock Hill Utilities 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, one way to minimize the potential for lead exposure is 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 drinking water, consider having your water tested for lead levels. The Safe Drinking Water Hotline offers information on lead in drinking water, testing methods, and steps you can take to minimize exposure. Or go online to www.water.epa.gov/drink/info/lead/.

Removing all contaminants from drinking water would be extremely costly, and in nearly all cases, this would not provide any greater protection of health. In fact, a few naturally occurring substances may actually improve the taste of drinking water and may have low-level nutritional values.

For most customers, water that meets all federal, state and local regulations is considered safe to drink. Some customers may be more vulnerable to contaminants in drinking water than the general population. People with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS and other immune system disorders, and some elderly people and infants can be at particular risk from infection. People with these health concerns should seek advice about drinking water from their health care provider. EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbial contaminants are available by calling the EPA SAFE DRINKING WATER HOTLINE at 1-800-426-4791.

To understand the possible health effects described for many regulated contaminants, a person would have to drink two liters of water every day at the MCL for a lifetime to have a one-in-a-million chance of having the described health effect.

As required by law, Rock Hill monitors around the clock for contaminants in the drinking water that we treat and supply to our customers. In 2013, Rock Hill performed more than 3,000 system tests at 146 local sites. These tests measure for bacteria, chlorine residual, pH and temperature. Sites include schools, residences, commercial businesses and industries in the Rock Hill water service territory. Along with these routine sites, the City performs special monitoring such as lead and copper every three years at 30 designated sites. The City also tests for corrosion control annually at ten approved sites throughout the City.

Every regulated contaminant detected in the water, even in the most minute traces, is listed in the table, which contains the name of each substance; the highest level allowed by regulation; the ideal goals for public health; the amount detected and the likely sources of contamination. In 2013, there were more than 100 contaminants that were tested for and not detected. (For a list of non-detects, call 803-329-5502.)

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



Glossary of Terms Referenced in Water Quality Data Table

Definitions - The water quality data tables contain scientific terms and measures, some of which may require explanation.

Action Level (AL)

The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Action Level Goal (ALG)

The level of a contaminant in drinking water below which there is no known or expected risk to health. ALGs allow for a margin of safety.

Detect(ed)

Laboratory analysis indicates that a contaminant is present.

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 treatment technology.

Maximum Contaminant Level Goal (MCLG)

The level of 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 disinfectant allowed in finished drinking water.

Maximum Residual Disinfectant Level Goal (MRDLG)

The level of disinfectant below which there is no known or expected risk to health. MRDLGs allow for a margin of safety.

Minimum Reporting Level (MRL)

The minimum concentration that can be reported as a quantitated value for a target analyte in a sample following analysis. This defined concentration can be no lower than the concentration of the lowest calibration standard for that analyte, and can only be used if acceptable quality control criteria for the analyte at this concentration are met.

NA - Not applicable.

ND - Not detected.

NR - Monitoring not required, but recommended.

Nephelometric turbidity units (NTU)

The unit of measure for measuring turbidity.

Parts per billion (ppb) or micro-grams per liter

One part per billion corresponds to a single penny in \$10 million.

Parts per million (ppm) or milligrams per liter (mg/l)

One part per million corresponds to a single penny in \$10,000.

Piouries per Liter (pCi/L)

A measure of the radioactivity in water.

RAA - Running Annual Average.

Treatment Technique (TT)

A required process intended to reduce the level of a contaminant in drinking water.

Turbidity

The degree of cloudiness due to particles suspended in water.

Unregulated Contaminant (UCMR3) - every 3 years

Rock Hill Utilities was monitored for the Unregulated Contaminant Monitoring Regulations 3 (UCMR3) in 2013. The purpose of this regulation is to collect occurrence data for contaminants suspected to be present in drinking water, but that do not have health-based standards set under the Safe Drinking Water Act (SDWA). Assessment Monitoring targets contaminants that are analyzed with methods that utilize existing and widely used technology. The UCMR program is the primary source of drinking water contaminant occurrence data used by EPA in regulatory determinations.



The City of Rock Hill water system is located in York County, South Carolina in the Catawba-Santee Basin(s). Rock Hill Utilities treats and distributes water to a primary population of over 66,000 retail customers in Rock Hill. In addition, water is distributed through wholesale customers, to the eastern half of York County including Fort Mill,

YOUR DRINKING WATER SOURCE

Tega Cay, City of York, River Hills, the Catawba Indian Nation and a small number of private water suppliers in the area. Rock Hill Utilities is well prepared to continue being the area's regional water provider for years to come.

The drinking water sources for the system are surface water intakes at the Catawba River/Lake Wylie in the northeast portion of the county. Water is then pumped to the Cherry Road treatment plant. There, conventional treatment and chemical addition produce the water you consume. Access to our raw water intake and treatment plant is highly restricted and closely monitored around the clock.

The South Carolina Department of Health and Environmental Control (SCDHEC) serves as coordinating agency for the State's Source Water Assessment and Protection Program (SWAP), a program required by EPA's 1996 amendments to the Safe Drinking Water Act. SWAP provides added protection of the City's water by conducting assessments for all drink-

ing water sources across South Carolina and implementing safeguard measures.

In 2009, SCDHEC completed the South Carolina State Water Assessment Second Edition, SCDNR. The assessment provides an inventory of potential contaminant sources (PCSs), identifies potential contaminants of interest and ranks the potential susceptibility of these PCSs with respect to the water source. SCDHEC has identified Rock Hill's source water to be susceptible to contaminants such as volatile organic contaminants, petroleum products, metals, nitrates, pesticides and herbicides. The City of Rock Hill continually monitors for the presence of these contaminants, and through state-of-the-art filtering and disinfecting techniques, delivers safe drinking water to its customers.

For a complete copy of this assessment report, contact Susan Featherstone at 803-329-5502 or visit Department of Natural Resources online: www.dnr.sc.gov/water/waterplan/assessment.html

Water Quality Data Table for 2013

REGULATED CONTAMINANTS 2013

MICROBIOLOGICAL CONTAMINANTS

Contaminant	Maximum Contaminant Level Goal	Total Coliform Maximum Contaminant Level	Highest Number of Positive	Fecal Coliform or E. Coli Maximum Contaminant Level	Total Number of Positive E. Coli or Fecal Coliform Samples	Violation	Likely Source of Contamination
Coliform Bacteria	0	5 % of monthly samples are positive	0	0	0	No	Naturally present in the environment
Contaminant	Limit (Treatment Technique)				Level Detected	Violation	Likely Source of Contamination
Turbidity	1 NTU		Highest Single Measurement		0.04	No	Soil runoff.
	0.3 NTU		Lowest Monthly Percentile		100%	No	Soil runoff.

INORGANIC CONTAMINANTS

Contaminants	Year	MCLG	MCL	Units	Highest Level Detected	Range of Levels Detected	Violation	Likely Source of Contamination
Nitrate [measured as Nitrogen]	2013	10	10	ppm	0.3	0.30-0.30	No	Leaching from septic tanks, sewage; Erosion of natural deposits
Fluoride	2013	4	4.0	ppm	0.64	0.64-0.64	No	Additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Contaminants	Year	ALG	AL	Units	90th Percent tile	Number of Sites Over AL	Violation	Typical Source
Copper	8/18/2011	1.3	1.3	ppm	0.07	0	No	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	8/18/2011	0	15	ppb	4	0	No	Corrosion of household plumbing systems; Erosion of natural deposits.

REGULATED CONTAMINANTS 2013 CONTINUED

DISINFECTANTS AND DISINFECTANTS BY-PRODUCTS

Not all sample results may have been used in calculating the Highest Level of Detected because some results may be part of an evaluation to determine where compliance sampling should occur in the future.

Contaminants	Year	MCLG	MCL	Units		Range of levels Detected	Violation	Likely Source of Contamination
Total Organic Carbon	2013	TT	TT	ppm		1.04-1.54	No	Naturally present in the environment
Chlorine (as CL2)	2013	4	4	ppm		1.2-1.4	No	Water additive used to control microbes
Chlorine Dioxide (as CLO2)	2013	0.8	0.8	ppm		0.0-0.116	No	Water additive used to control microbes
Chlorite	2013	0.8	1.0	ppm		0.0-.618	No	By-Product of drinking water disinfection
Contaminants	Year	MCLG	MCL	Units	Highest Level Detected	Range of Levels Detected	Violation	Likely Source of Contamination
TTHMs (Total Trihalomethanes)*	2013	No goal for the total	80	ppb	64	0-115.3	Yes	By-Product of drinking water disinfection
Halocetic Acids (HAA5)*	2013	No goal for the total	60	ppb	21	0-33.1	No	By-Product of drinking water chlorination

Radioactive Contaminants and Other Contaminants of Interest

Contaminants	Year	MCLG	MCL	Units	Highest Level Detected	Range of Levels Detected	Violation	Likely Source of Contamination
Combined Radium 226/228	2010	0	5**	pCi/L	0.507	0.203-.507	No	Erosion of natural deposits
Sodium (optional)	2012	NR	NR	ppm	7.9	7.9-7.9	No	Erosion of natural deposits; Leaching
Hardness (optional)	2012	NR	NR	ppm	28.9	16-28	No	Erosion of natural deposits

Violation Table - TTHM

Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidney, or central nervous system and may have an increased risk of cancer.

Violation Type	Violation Begin	Violation End	Violation Explanation
MCL, AVERAGE	7/1/2013	9/30/2013	Water samples showed that the amount of this contaminant in our drinking water was above its standard (called a maximum level or MCL) for the period listed.

* For more information regarding the violation and sample site, see the article on the next page.

UNREGULATED CONTAMINANTS 2013

UNREGULATED CONTAMINANTS

Rock Hill Utilities has been monitored for the Unregulated Contaminant Monitoring Regulations 3 (UCMR3) in 2013. The contaminants that were detected are listed below. See Definition of Terms for explanation of the UCMR3 contaminants.

Contaminants	Collection Date	MCLG	MCL	Units	MRL	Range of Levels Detected Site 1: Water Plant	Range of Levels Detected Site 2: Distribution System	Likely Source of Contamination
Hexavalent Chromium (Dissolved)	2013	NR	NR	ppb	0.03	.11-.13	.11-.14	Naturally-occurring element; used in making steel and other alloys; chromium-3 or -6 forms are used for chrome plating, dyes and pigments, leather tanning and wood preservation.
Chromium	2013	NR	NR	ppb	0.2	.24-.28	.26-.28	Total chromium is the total of chromium in all of its valence states, the MCL for EPA current total chromium regulation was determined based upon the health effects of chromium 6. Naturally-occurring element; used in making steel and other alloys; chromium-3 or -6 forms are used for chrome plating, dyes and pigments, leather tanning and wood preservation.
Strontium	2013	NR	NR	ppb	0.3	.31-.45	.32-.43	Naturally-occurring element; historically, commercial use of strontium has been in the faceplate glass of cathode-ray tube televisions to block x-ray emissions.
Chlorite	2013	NR	NR	ppb	0.2	.45-.54	.47-.54	Naturally-occurring elemental metal; used as vanadium pentoxide which is a chemical intermediate and a catalyst.
Chlorate	2013	NR	NR	ppb	20	65-68	55-73	Agricultural defoliant or desiccant; used in production of chlorine dioxide.
1,4 Dioxane	2013	NR	NR	ppb	0.07	0.07		Cyclic aliphatic ether; used as a solvent or solvent stabilizer in manufacture and processing of paper, cotton, textile products, automotive coolant, cosmetics and shampoos.

* Information About TTHM Violation and Sample Site (from previous page)

The City of Rock Hill strives to provide excellent customer service and the highest quality drinking water. We continually monitor our finished drinking water at various locations in our system.

The City's drinking water met all federal and state requirements throughout the system from October 2012 through September 2013, except the Department of Health and Environmental Control (DHEC) determined that levels of Trihalomethanes (TTHMs) were elevated (annual average of 0.084 mg/L compared with a federal standard of 0.080 mg/L) for one discrete property, Saluda Trail Middle School.

The City disagrees that the levels were high at this one location because one of DHEC's four samples throughout the year was taken when the facility was not occupied over the summer. The water in this facility's lines (not the City's main line) had likely not been recently flushed, leading to unrepresentative and high TTHM results. Moreover, based upon additional testing the City performed in September, the annual average for the location fell below the 0.080 mg/L compliance threshold. Further, DHEC testing in October confirms that TTHM levels remain below the threshold.

Rock Hill Schools, the property owner for this one location, was promptly notified in writing of the DHEC test results, as well as supplemental City testing. Based on this testing and the circumstances described above, both the City and the school district do not believe that there is any cause for concern.

Because the facility in question is unoccupied for periods of the year, the City is moving its sampling location from inside the facility to a nearby City main water line. This will allow the City to confirm going forward that the City's water remains fully compliant with TTHM requirements. We understand that the school district will implement a line flushing program, as appropriate.

Consumption of water containing TTHM levels above 0.080 mg/L over many years (which is not the case here at all) can cause some people to experience problems with their liver, kidneys or central nervous system and may increase one's risk of getting cancer.

In addition to the City's efforts to ensure high quality drinking water, customers are reminded to flush private water lines periodically to prevent water from sitting in the lines for extended periods of time, particularly during warm summer months.



Rock Hill is a community where vision meets action. By aligning resources with predetermined initiatives that are tied to a broader vision, the Strategic Plan assists the City with using its limited resources deliberately and purposefully to accomplish meaningful goals that contribute to the overall quality of life in our community. The Strategic Plan has three focus areas:

- Provide Quality Services
- Develop Quality Places
- Foster a Quality Community

To learn more, visit cityofrockhill.com/transparency

AWARDS

Water Environment Association of
South Carolina Catawba District:

Gary McManus - Water Plant Operator of the Year



South Carolina Department of Health and
Environmental Control (DHEC):

2010-2011 Water Fluoridation Quality Award

2011-2012 Water Fluoridation Quality Award

2012-2013 Water Fluoridation Quality Award

Rock Hill Utilities Earns Award For Drinking Water Exceeding Regulatory Standards

The Rock Hill Water Treatment Plant has earned the South Carolina Area-Wide Optimization Award since 2004! The Rock Hill Water Plant is one of a handful of plants in South Carolina to meet the goals set by SC Department of Health and Environmental Control (SCDHEC). These optimization goals exceed water quality regulations for particle removal and disinfection at filtration plants. South Carolina adopted this voluntary EPA program to maximize public health protection by improving drinking water quality *beyond* regulatory requirements.

DIRECTORY

The City's water system is governed by Rock Hill City Council and operated by the Utilities Department under the supervision of City Management.

A. Douglas Echols, Mayor
Sandra Oborokumo, Councilmember Ward 1
Kathy Pender, Councilmember Ward 2
Kevin Sutton, Councilmember Ward 3
John A. Black III, Councilmember Ward 4
Ann Williamson, Councilmember Ward 5
James C. Reno Jr, Councilmember Ward 6/Mayor Pro Tem
David B. Vebaun, City Manager
Gerald E. Schapiro, Deputy City Manager
James G. Bagley Jr, PE, Deputy City Manager
Mark Kettlewell, City Engineer
Bill Yetman, PE, Water & Wastewater Treatment Plants Manager
Susan Featherstone, Water Treatment Plant Superintendent

Rock Hill City Council meets on the second and fourth Monday of each month at 6 p.m. Council meetings are broadcast live and re-aired on Rock Hill's government access channel, RHTV19 and streamed live on cityofrockhill.com/citychannel.

Website: www.cityofrockhill.com

Customer Service, Utility Bill Questions: **803-325-2500**

24-Hour Automated Service: **803-329-5500**

Rock Hill Water Treatment Plant: **803-329-5502**

Utilities Department: **803-329-5500**

City Council/Meeting Information: **803-329-7012**

TDD for Hearing Impaired: **803-329-8787**

EPA Safe Drinking Water Hotline: **1-800-426-4791**

Palmetto Utility Protection Service (PUPS) - "Call Before You Dig":

Dial "811" or call toll free 1-888-721-7877



**Know what's below.
Call before you dig.**

Spanish Line: **803-325-2537**

**EN ESPAÑOL: Este informe contiene informacion importante acerca de su agua potable. Por favor, haga que alguien lo traduzca para usted, o hable con alguien lo entienda. Gracias.*