## What were the results from last year’s testing?

<table>
<thead>
<tr>
<th>CONTAMINANT DETECTED</th>
<th>MCLG</th>
<th>MCL</th>
<th>CITY WATER RESULTS</th>
<th>% OF SAMPLES &gt; AL</th>
<th>RANGE OF DETECTIONS</th>
<th>VIOLATION</th>
<th>TYPICAL SOURCE OF CONTAMINANT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MICROBIOLOGICAL COMPOUNDS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Coliforms ¹</td>
<td>0</td>
<td>40</td>
<td>&lt;1 colony forming units per 100 mL</td>
<td>28/30</td>
<td>0.2 pCi/L</td>
<td>No</td>
<td>Manure or animal waste</td>
</tr>
<tr>
<td>E. coli ¹</td>
<td>0</td>
<td>2</td>
<td>&lt;2 colony forming units per 100 mL</td>
<td>28/30</td>
<td>5 pCi/L</td>
<td>No</td>
<td>Manure or animal waste</td>
</tr>
<tr>
<td>Turbidity/Free measurement</td>
<td>10 NTU</td>
<td>5 NTU</td>
<td>0.2 - 10 NTU</td>
<td>n/a</td>
<td>n/a</td>
<td>No</td>
<td>Sand or silt</td>
</tr>
<tr>
<td>Turbidity/Free measurement below 0 NTU</td>
<td>95%</td>
<td>95%</td>
<td>95%</td>
<td>n/a</td>
<td>n/a</td>
<td>No</td>
<td>Turbidity/Free measurement below 0 NTU</td>
</tr>
<tr>
<td><strong>RADIONUCLIDE COMPOUNDS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Combined Radium</td>
<td>0 pCi/L</td>
<td>1.6 pCi/L</td>
<td>0 - 4 pCi/L</td>
<td>n/a</td>
<td>n/a</td>
<td>No</td>
<td>Presence of natural deposits</td>
</tr>
<tr>
<td>Uranium</td>
<td>0.16 pCi/L</td>
<td>0.91 pCi/L</td>
<td>0 - 2.99 pCi/L</td>
<td>3</td>
<td>0.015 ppm</td>
<td>No</td>
<td>Presence of natural deposits</td>
</tr>
<tr>
<td><strong>INORGANIC COMPOUNDS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Copper</td>
<td>1.3 ppm</td>
<td>1.3 ppm</td>
<td>2 - 2.99 ppm</td>
<td>0</td>
<td>0.97 ppm</td>
<td>No</td>
<td>Presence of lead plumbing systems, erosion of natural deposits</td>
</tr>
<tr>
<td>Metal lead ²</td>
<td>0 ppm</td>
<td>0.015 ppm</td>
<td>0 - 0.05 ppm</td>
<td>0</td>
<td>0.4 pCi/L</td>
<td>No</td>
<td>Presence of natural deposits</td>
</tr>
<tr>
<td>Fluoride</td>
<td>4 ppm</td>
<td>4 ppm</td>
<td>0.8 - 4.8 ppm</td>
<td>0</td>
<td>10 ppm</td>
<td>No</td>
<td>Presence of natural deposits</td>
</tr>
<tr>
<td>Barium</td>
<td>2 ppm</td>
<td>2 ppm</td>
<td>0.015 ppm</td>
<td>n/a</td>
<td>n/a</td>
<td>No</td>
<td>Presence of natural deposits</td>
</tr>
<tr>
<td>Nitrites</td>
<td>10 ppm</td>
<td>10 ppm</td>
<td>ND</td>
<td>n/a</td>
<td>n/a</td>
<td>No</td>
<td>Presence of natural deposits</td>
</tr>
</tbody>
</table>

¹ Unit of measurement for total coliforms and E. coli is the presence or absence of bacteria in 100 mL sample.
² Two samples taken in January 2012 (out of a total 50 monthly samples for the City) were positive for Total Coliform bacteria. Each bacteria sample was resampled, along with a check sample from within five service connections upstream and downstream of the initial sample site. All resamples and upstream/downstream samples came back negative for bacteria, indicating the most likely reason for these positive results was laboratory or sampling error. This does not constitute a violation of the MCL.

The table in this report shows which contaminants were detected in your drinking water. Before trying to read and understand the table, there are a few terms which need to be defined.

**MAXIMUM CONTAMINANT LEVEL GOAL (MCLG):** The level of a contaminant in drinking water below which it is known or expected to have no known or expected health effects. MCLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.

**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 possible using the best available treatment technologies and costs. Some MCLs have health-based goals that do not reflect the benefits of the use of disinfectants to control microbial contamination.

**MAXIMUM RESIDUAL DISINFECTION LEVEL (MRDL):** The level of a drinking water disinfectant below which it is known or expected to result in health benefits. MRDLs do not reflect the benefits of the use of disinfectants to control microbial contamination.

**NATIONAL PRIMARY DRINKING WATER REGULATION (NDPWR) (MCLG or MCL):** The level of a drinking water disinfectant below which it is known or expected to result in health benefits. NDPRs do not reflect the benefits of the use of disinfectants to control microbial contamination.

**TOTAL FLUORIDE:** The maximum level of fluoride in drinking water, beyond which there is no known or expected risk to health. This level is 4 pCi/L. If fluoride in your drinking water exceeds 2 pCi/L, you can reduce fluoride exposure by using a fluoride-free water treatment device available at many department stores.

**FLUORIDE:** Fluoridated water is highly supported by the Virginia Department of Health, the American Medical Association, American Dental Association, Centers for Disease Control (CDC) and the majority of health professionals in the U.S. Please visit www.cdc.gov/fluoridation if you would like further information on the health impacts of fluoridated water.

**Cryptosporidium:** Cryptosporidiosis is a gastrointestinal illness characterized by nausea, diarrhea, and abdominal cramps that can be caused by ingestion of Cryptosporidium species. In immunocompetent individuals, the illness is usually self-limiting but in vulnerable populations, the illness can be more severe and include prolonged diarrhea, fever, and dehydration. In one study, 1 in 5 people with cryptosporidiosis were hospitalized. The illness can last several weeks to months, and occasionally a relapse can occur. There is currently no vaccine or specific treatment for Cryptosporidium.

**What do all these numbers mean?**

Most importantly, this information shows that your drinking water met and exceeded all regulatory requirements during 2012. We are fortunate to have reliable sources for our drinking water needs and well-operated treatment facilities. Additional information is provided below that will give you details on each contaminant detected in your drinking water. For information on the health risks associated with long-term exposure to these contaminants at levels in excess of the MCL, please visit www.charlottesville.org/waterquality.

**What is Water Hardness?**

If substantial amounts of either calcium or magnesium, both nontoxic minerals, are present in drinking water, the water is said to be hard. The last full-scale hardness test finished in the RWSA water system averages 24 mg/L, which is equivalent to 1.4 grains per gallon. This is mainly calcium. The water may be described as soft to moderately hard.

Fluoridated water is highly supported by the Virginia Department of Health, the American Medical Association, American Dental Association, Centers for Disease Control (CDC) and the majority of health professionals in the U.S. Please visit www.cdc.gov/fluoridation if you would like further information on the health impacts of fluoridated water.

**Revised Water Treatment Process Coming Soon**

RWSA has been granted an extension to the new requirements for EPA’s Stage 2 Disinfection Byproducts (THM/HAA5) regulations which require that AOCs can be combined for up to 12% of the total flow of the water system averages 24 mg/L, which is equivalent to 1.4 grains per gallon. This is mainly calcium. The water may be described as soft to moderately hard.
Where does my water come from?

RWSA operates two water treatment plants (WTP) that provide water to the City’s South Rivanna WTP and the Observatory WTP. Each plant employs both chemical and physical treatment processes before releasing water into the distribution system. Sodium Hypochlorite is used at both South Rivanna and Observatory. Fluoride is added at all treatment plants to promote good dental health. The water treatment plant that provides water to your tap may vary from day to day depending on the daily production of water at each plant, the level of storage in the system and your location. The North Rivanna WTP draws water from the North Fork Rivanna River and serves customers located in northern Albemarle County. The South Rivanna WTP draws water from the South Fork Rivanna Reservoir. The Observatory WTP draws water from both the Ragged Mountain and Sugar Hollow Reservoirs. Under a new program developed by VDH, a source water assessment for the Albemarle/Charlottesville Urban Area was completed by the VDH on March 25 and September 4, 2002. This assessment determined that the raw water sources named above may be susceptible to contamination. All surface water sources are exposed to a wide array of contaminants at varying concentrations and changing hydrologic, hydraulic and atmospheric conditions that promoted migration of contaminants from land use activities of concern within the assessment area. More specific information may be obtained by contacting the water system representative listed at the end of this insert.

Water testing performed in 2012

- Vitamin C: 0 µg/L
- Copper: 0 µg/L
- Lead: 0.0 ppb
- Fluoride: 0.7 mg/L
- Manganese: 0.01 mg/L
- Chromium, 6: 0.01 mg/L
- Barium: 0.03 mg/L
- Selenium: 0.02 mg/L
- Arsenic: 0.005 ppm
- Cadmium: 0.0002 ppb
- Antimony: 0.0002 ppb
- Zinc: 0.064 mg/L
- Turbidity: 0.04 NTU
- pH: 7.0

For the Spanish-speaking members of our community: Este informe contiene información muy importante. Tradúzcalo o hable con un amigo quien lo entienda bien.

How do I get more information?

You may obtain a copy of this Consumer Confidence Report (CCR) at your local government office or by calling the EPA’s Safe Drinking Water Hotline (800-426-4791) or visit our website (www.epa.gov/safewater).

Who are my partners for improving your drinking water?

The City of Charlottesville and the Rivanna Water & Sewer Authority are committed to providing you, the customer, with this information because informed consumers are more likely to make healthy and informed decisions about drinking water. Our goal is to use this information to create a stronger partnership with the Virginia Department of Health (VDH), work to ensure that you receive a safe and reliable supply of drinking water. As “part of that ongoing commitment, we are providing you with this report on the quality of your drinking water. While this annual report is currently required by the United States Environmental Protection Agency (USEPA), we wish to use this opportunity to assure you that the quality of your drinking water meets or exceeds all regulatory requirements and your expectations for safety, reliability and quality. RWSA collects, stores, and treats the water, then the City buys the treated water from RWSA and distributes it to you through their distribution system.

What standards does my water have to meet?

As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals, and in some cases radioactive material, as well as substances resulting from the presence of animals or human activity. 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) or visit their website (www.epa.gov/safewater).