Landrum Drinking Water Surpasses All Standards

SPARTANBURG WATER IS PLEASED TO PRESENT YOU WITH OUR 2018 WATER QUALITY REPORT. WE ARE PROUD TO ANNOUNCE THAT LANDRUM’S DRINKING WATER CONTINUES TO MEET AND SURPASS ALL STATE AND FEDERAL WATER QUALITY STANDARDS UNDER THE SAFE DRINKING WATER ACT.

In order to protect you, our valued customer, the United States Environmental Protection Agency (EPA) and the South Carolina Department of Health and Environmental Control (DHEC), have established strict standards for drinking water. These standards protect consumers from waterborne disease organisms and harmful chemicals. On an annual basis, the EPA requires all public water systems to provide customers with information about water quality and compliance with environmental standards.

Throughout the year, we conduct hundreds of tests in our DHEC-certified laboratory to ensure that our water supply meets all EPA and DHEC standards. These tests are conducted at every stage of the treatment process and at many locations throughout the nearly 30-mile distribution system. In addition, on a regular basis DHEC performs other independent analyses. Landrum’s drinking water meets standards significantly higher than current regulations. This notable performance is due in part to the participation by the Landrum Water Treatment Facility in the South Carolina Area-Wide Optimization Program (AWOP), which focuses on treatment enhancements. The Landrum facility received an AWOP award as well as the AWOP 10 Year Award for achieving the program goals.

In our dedication to providing our customers with a plentiful, reliable, and economical source of clean, safe drinking water, we have enhanced our Landrum watershed protection program. In addition, we continue to partner with the EPA and the American Water Works Association (AWWA) as member of the Partnership of Safe Water. The Landrum Water Treatment Facility has received the Director’s Award for this program. We invite you to learn more about us by visiting our website at www.spartanburgwater.org.

Where Does Our Water Come from?

Our Landrum Water Treatment Facility uses surface water from Hogback Creek, located near the top of Hogback Mountain, as well as Vaughn’s Creek, located near Lake Lanier. The source water is located in Greenville County within the Broad River Basin. The system serves a primary population of 4,000 people.

The Safe Drinking Water Act Amendments of 1996 required DHEC to perform a source water assessment for all drinking water supplies in South Carolina. This assessment consists of the following key elements: determining the geographic boundaries for each water supply, preparing a list of potential contamination sources within each area and assessing the potential for pollutants to enter the water supply.

DHEC has completed the source water assessment for Landrum’s source waters. Potential contaminants identified in the report include volatile organic compounds (VOCs), petroleum products, metals, nitrates, pesticides/herbicides and pathogens. Potential sources of these contaminants include gas stations, dry cleaners, agricultural areas, automobile repair shops, septic systems and facilities where potential contaminants are used or stored.

Spartanburg Water tests Landrum’s drinking water for more than 100 substances. Most of the results show that contaminants are not present in our drinking water, but there are some exceptions. The following tables list the contaminants that were found in Landrum’s drinking water. Most samples were taken at the treatment plant at a point just before the water enters our distribution system, but trihalomethanes, haloacetic acids, and lead and copper compliance samples were monitored from customer taps throughout the distribution system. The regulations do not require us to monitor Landrum’s water for every contaminant every year. The information in the tables is for the most recent samples taken in accordance with the applicable regulations.

For more information about the state’s source water assessment program or watersheds, visit www.scdhec.gov/environment/your-water-coast/source-water-protection. Please contact David Crosby at 864-598-7277 for more information about our source water assessment.
What’s in Our Water?

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. These substances are called “contaminants.”

CONTAMINANTS THAT CAN BE PRESENT IN 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, 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 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 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.

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). The EPA and DHEC prescribe strict regulations that limit the amount of certain contaminants allowed in tap water to ensure that it is safe to drink. The FDA establishes limit regulations for contaminants present in bottled water and also must provide protection for the public health.

### DISINFECTANTS AND DISINFECTION BYPRODUCTS MEASURED IN THE DISTRIBUTION SYSTEM

<table>
<thead>
<tr>
<th>Substance</th>
<th>MRDLG MCLG</th>
<th>MRDL MCL</th>
<th>Highest Level Found</th>
<th>Range of Levels Found</th>
<th>Date of Sample</th>
<th>Was MRDL or MCL Exceeded?</th>
<th>Typical Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chlorine</td>
<td>4 ppm</td>
<td>4 ppm</td>
<td>1.37 ppm</td>
<td>1.26 – 1.46</td>
<td>2018</td>
<td>No</td>
<td>Added for disinfection</td>
</tr>
<tr>
<td>Total Trihalomethanes</td>
<td>0</td>
<td>80 ppb*</td>
<td>LRAA = 31 ppb</td>
<td>13 – 45</td>
<td>2018</td>
<td>No</td>
<td>By-product of disinfection</td>
</tr>
<tr>
<td>Total Haloacetic Acids</td>
<td>0</td>
<td>60 ppb*</td>
<td>LRAA = 20 ppb</td>
<td>12 – 25</td>
<td>2018</td>
<td>No</td>
<td>By-product of disinfection</td>
</tr>
</tbody>
</table>

* Compliance for Trihalomethanes and Haloacetic Acids are based on Locational Running Annual Averages (LRAA), not individual sample values. The calculated LRAA may include data from 2017 not reported on this table while range of levels found represents samples collected during 2018 only.

### COLIFORM BACTERIA MEASURED IN THE DISTRIBUTION SYSTEM

<table>
<thead>
<tr>
<th>Contaminant</th>
<th>MCLG</th>
<th>TT</th>
<th>Result</th>
<th>Date of Sample</th>
<th>Was TT exceeded?</th>
<th>Typical Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Coliform</td>
<td>N/A</td>
<td>TT*</td>
<td>No positive E. coli results</td>
<td>2018</td>
<td>No</td>
<td>Naturally present in the environment</td>
</tr>
</tbody>
</table>

Units of Measurement

- **ppm (Parts per Million)**: This is the same as milligrams per liter, or the equivalent of one penny out of ten thousand dollars.
- **ppb (Parts per Billion)**: This is the same as micrograms per liter, or the equivalent of one penny out of ten million dollars.
- **SU (Standard Units)**: Unit of measure to indicate how acidic or basic water is on the pH scale.
- **NTU (Nephelometric Turbidity Units)**: Units of measure to indicate water clarity.

On April 1, 2016 SCDHEC required Public Water Systems to implement the Revised Total Coliform Rule (RTCR).

*Under RTCR a Treatment Technique (TT*) violation is defined as any of the following:
  - E. Coli-positive repeat sample following a total coliform-positive routine sample
  - Total coliform-positive repeat sample following an E. coli routine sample
  - Failure to take all required repeat samples following an E. coli-positive routine sample
  - Failure to test for E. coli when any repeat sample tests positive for total coliform
# Lead and Copper

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. Spartanburg Water 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 two minutes before using water for drinking or cooking. If you are concerned about lead in your drinking water, you may want to consider having 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 (1-800-426-4791) or at [http://www.epa.gov/your-drinking-water/basic-information-about-lead-drinking-water](http://www.epa.gov/your-drinking-water/basic-information-about-lead-drinking-water).

<table>
<thead>
<tr>
<th>Substance</th>
<th>MCLG</th>
<th>MCL</th>
<th>Highest Level Found</th>
<th>Range of Levels Found</th>
<th>Date of Sample</th>
<th>Was MCL MCL Exceeded?</th>
<th>Typical Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turbidity</td>
<td>NA</td>
<td>NA</td>
<td>TT = percentage of samples equal to or below 0.3 NTU</td>
<td>100%</td>
<td>NA</td>
<td>2018</td>
<td>No</td>
</tr>
<tr>
<td>Nitrate</td>
<td>10 ppm</td>
<td>10 ppm</td>
<td>0.086 ppm</td>
<td>NA</td>
<td>2018</td>
<td>No</td>
<td>Naturally occurring and fertilizer runoff</td>
</tr>
<tr>
<td>Total Organic Carbon</td>
<td>NA</td>
<td>NA</td>
<td>TT = removal ratio of 1 or greater</td>
<td>Removal Ratio Avg. = 1.16</td>
<td>2018</td>
<td>No</td>
<td>Naturally occurring</td>
</tr>
</tbody>
</table>

## Unregulated Contaminants

Unregulated contaminants are those that do not have a drinking water standard set by EPA. EPA is required by the Safe Drinking Water Act to identify every five years a list of potential contaminants, make a rule for water systems to test for them, and then make a decision whether regulations is necessary. As part of the Unregulated Contaminant Monitoring Rule 4 (UCMR4), DHEC tested Landrum Water’s treated and distribution system water for 20 unregulated contaminants. Seventeen of the contaminants under review were not detected, but three were detected. The levels measured are included in this report. If you have any question about these results or are interested in the full list of contaminants that were monitored, please contact David Crosby at 864-598-7277.

<table>
<thead>
<tr>
<th>Substance</th>
<th>Sample Location</th>
<th>Highest Level Found</th>
<th>Range of Levels Found</th>
<th>Date of Sample</th>
<th>Typical Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>HAA5</td>
<td>Distribution System</td>
<td>29 ppm</td>
<td>17.5 – 29</td>
<td>2018</td>
<td>By-product of disinfection</td>
</tr>
<tr>
<td>HAA6Br</td>
<td>Distribution System</td>
<td>4.8 ppb</td>
<td>2.4 – 4.8</td>
<td>2018</td>
<td>By-product of disinfection</td>
</tr>
<tr>
<td>HAA9</td>
<td>Distribution System</td>
<td>33.8 ppb</td>
<td>20.2 – 33.8</td>
<td>2018</td>
<td>By-product of disinfection</td>
</tr>
<tr>
<td>Bromide</td>
<td>Source Water</td>
<td>23 ppb</td>
<td>ND – 23</td>
<td>2018</td>
<td>Naturally Occurring</td>
</tr>
</tbody>
</table>

## Lead and Copper

<table>
<thead>
<tr>
<th>Contaminant</th>
<th>Action Level (90%)</th>
<th>Landrum 2016 (90%)</th>
<th>Number over Action Level</th>
<th>Typical Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copper</td>
<td>1.3 ppm</td>
<td>0.19 ppm</td>
<td>0</td>
<td>Corrosion of household plumbing and erosion of natural deposits; Leaching from wood preservatives</td>
</tr>
<tr>
<td>Lead</td>
<td>15 ppb</td>
<td>3 ppb</td>
<td>0</td>
<td>Corrosion of household plumbing and erosion of natural deposits</td>
</tr>
</tbody>
</table>
OUR MISSION is to provide quality water and wastewater services to our region in a reliable manner.

WATER QUALITY TERMS AND ABBREVIATIONS:

- **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 disinfectant in drinking water 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 contamination.

- **LRAA (Locational Running Annual Average)**: The average concentration at a particular location for four consecutive quarters.

- **NA (Not Applicable)**: Does not apply.

- **ND (Not Detected)**: Not detected or below detection limits.

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

CUSTOMER SERVICE

Please contact the Spartanburg Water Customer Service Department at 1-877-797-7773 if you have any questions about Spartanburg Water or this report. Learn more about Spartanburg Water by visiting our website at www.spartanburgwater.org.

COMMISSION MEETINGS

The Commissioners of Public Works of the City of Spartanburg, SC, meet regularly throughout the year. The meetings are held at: Spartanburg Water Main Office, 200 Commerce Street, Spartanburg, SC 29306. For more information and a meeting schedule, please contact Trish Heatherington at 864-580-5643.

OTHER SOURCES OF INFORMATION ON DRINKING WATER

- **EPA Safe Drinking Water Hotline**
  1-800-426-4791  www.epa.gov/your-drinking-water/safe-drinking-water-hotline

- **National Sanitation Foundation**
  1-800-673-6275  www.nsf.org/consumer/drinking_water/dw_quality

- **SCDHEC**
  www.scdhec.gov/environment/your-home/drinking-water

ESTE INFORME CONTIENE INFORMACION ACERCA DEL AGUA POTABLE. Si usted desea recibir una copia de este informe en idioma español, comuníquese con Atención al Cliente al 1-864-582-6375.

SPARTANBURG WATER

P.O. Box 251, Spartanburg, SC 29304