# 2015 ANNUAL DRINKING WATER QUALITY REPORT
# CITY OF DARLINGTON WATER DEPARTMENT SYSTEM # 1610001
# June 1, 2016

The City of Darlington Water Department is pleased to present this year's annual water quality report. This report is designed to inform you about the water quality and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. The City continues its commitment to ensure the quality of your water. Davis & Brown, Inc. of Quinby, S.C. operates our wells and has instituted numerous changes in equipment and procedures relating to water production. With their expertise and a lot of hard work, Davis & Brown engineers and certified operators are producing the highest quality water ever pumped from our wells.

Our source water is the Middendorf Aquifer. In 2015, the system included Hampton Street Well (G16101), North Main Street Well (G16102), Edwards St. Well (G16103) and By-Pass Well (G16104). Our Source Water Assessment Plan is available for your review at www.scdhec.gov/water/html/srcewtr.html. If you do not have Internet access, please contact our customer service personnel at the Darlington Water Department at 843-398-4040 to make arrangements to review this document.

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 to land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pickup substances resulting from the presence of animals or from human activity.

We are pleased to report that our drinking water is safe and meets federal and state requirements. If you have any questions about this report or your water utility, please contact our customer service personnel at the Darlington Water Department at 843-398-4040. We want our customers to be informed about their water utility. If you have unanswered questions and concerns, you may attend any regularly scheduled Darlington City Council meeting to express those concerns. The City Council meets on the first Tuesday of each month at 7:00 pm in the council chambers at the Darlington City Hall at 400 Pearl Street.

The City of Darlington Water Department routinely monitors for contaminants in your drinking water according to Federal and State laws. The following tables indicate the results of our monitoring for the period of January 1, 2015 through December 31, 2015.

**LEAD AND COPPER TEST RESULTS**

| Contaminant | Violation yes/no | $90^{th}$ Percentile | Unit of Measure | Action Level | Sites over action level | Likely Source of Contamination |
|---|---|---|---|---|---|---|
| Copper 2014 | NO | $90^{th}$ % = 0.014 | ppm | 1.3 ppm | 0 | Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives |
| Lead 2014 | NO | $90^{th}$ % = 0.000 | ppb | 15 ppb | 0 | Corrosion of household plumbing systems, erosion of natural deposits |

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. City of Darlington 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 2 minutes before using water for drinking or cooking. If you are concerned about lead in your drinking water, you may wish to have 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 or at http://www.epa.gov/safewater/lead.

## Water Quality Test Results

| Contaminant | Violation Yes / No | Level Detected | Unit of Measure | MCLG | MCL | Likely Source of Contamination |
|---|---|---|---|---|---|---|
| **Inorganic Contaminants** | | | | | | |
| Fluoride 04/01/2014 | No | 1.20 Range 0.34-1.20 | ppm | 4 ppm | 4 ppm | Erosion of natural deposits; water additive to promote strong teeth; discharge from fertilizer and aluminum factories |
| Thallium 04/01/2014 | No | 0.067 Range 0.0 to 0.067 | ppm | 0.5 ppb | 2 ppb | Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries |
| Nitrate 05/04/2015 | No | ND | ppm | 10 | 10 | Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits |
| **Disinfectants and Disinfection By Products** | | | | | | |
| TTHM (Total trihalomethanes) 07/16/2015 | No | ND Range | ppb | No goal for the total | 80 | By-product of drinking water chlorination |
| HAA5 (Haloacetic Acids) 07/16/2015 | No | ND Range | ppb | No goal for the total | 60 | By-product of drinking water chlorination |
| Chlorine 2015 | No | Range 1.00-1.00 | ppm | MRDL= 4 ppm | MRDLG = 4 ppm | Water additive used to control microbes |
| **Radioactive Contaminants** | | | | | | |
| Radium 226 | No | 0.510 | pCi/L | 0 | 5 | Erosion of natural deposits |
| Radium 228 | No | 1.05 | pCi/L | 0 | 5 | Erosion of natural deposits |
| Alpha Emitters | No | 0.596 | pCi/L | 0 | 15 | Erosion of natural deposits |
| Beta Emitters | No | ND | pCi/L | 0 | 15 | Erosion of natural deposits |

Herbicide and pesticide samples were non-detected.

In the tables above, you will find terms and abbreviations with which you may not be familiar. To help you understand the information, the following definitions will apply:

**AL - Action Level:** The concentration of a contaminant, which, if exceeded, trigger treatment or other requirements, which a water system must follow.

**MCL - Maximum Contaminant Level:** The "Maximum Allowed" (MCL) is 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 "Goal"(MCLG) is 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 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.

**Avg.** – Regulatory compliance with some MCL's are based on running annual average of monthly samples.

**ND - Non-Detects** - laboratory analysis indicates that the constituent is not present.

**pCi/l - Pico Curies per liter:** A measure of the radioactivity in water.

**ppb - Parts per billion:** One part per billion is similar to a count of one dollar to one billion dollars ($1.00 to $1,000000000.00)

**ppm - Parts per million:** One part per million is similar to a count of one dollar to one million dollars ($1.00 to $1,000000.00)

**na:** - not applicable.

***Violations Table***

| None | | | |
|---|---|---|---|
| None | | | |
| Violation Type | Violation Begins | Violation Ends | Violation Explanation |
| | | | |

We're proud that your drinking water meets or exceeds all Federal and State requirements. We have learned through monitoring and testing that some constituents have been detected. The EPA has determined that your water IS SAFE at these levels.

According to laboratory results from over eighty (80) potential contaminants, our system had no violations in water quality. One series of tests of particular interest involves the detection of coliform bacteria, especially those found in human and animal fecal waste. Each month, the Darlington Water Department conducts 13 microbiological samplings of the system's water to test for coliforms. All sources of drinking water are subject to potential contamination by substances that are naturally occurring or man made. The substances can be microbes, inorganic or organic chemicals and radioactive substances.

Contaminants that may 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, industrial or domestic wastewater discharges, oil and gas production, mining, and residential uses.

- 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.

All 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 the water poses a health risk. More information about contaminants and potential health effect can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (1-800-426-4791).

MCL's are a set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

Dead end lines and galvanized distribution lines are major concerns of our water department. The City of Darlington Water Department continually makes plans for improvements to the system. The costs of these improvements may be reflected in the rate structure. Rate adjustments may be necessary in order to address these improvements.

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 microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

We at the City of Darlington Water Department work around the clock to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future.

Copies of this report will not be mailed. If you want copies of the report, they are available online at darlingtonsconline.com and will be available at the Water Department at 400 Pearl Street in City Hall. Please call the City of Darlington Water Department at 843-398-4040 or 4041 if you have any questions.