

**SANFORD LAW OFFICE, PLLC**  
**Jo Anne Sanford, Attorney at Law**

September 25, 2019

Ms. Kim Campbell, Chief Clerk  
North Carolina Utilities Commission  
4325 Mail Service Center  
Raleigh, NC 27699-4325  
Clarification

**Via Electronic Delivery**

Re: Carolina Water Service, Inc. of North Carolina  
Docket No. W-354, Sub 364 - General Rate Case Proceeding  
*Report on Customer Comments from Public Hearings Held in  
Charlotte and Manteo, North Carolina, on September 5 and 10,  
2019, Respectively*

Dear Ms. Campbell:

Attached for electronic filing please find Carolina Water Service, Inc. of North Carolina's *Report on Customer Comments from Public Hearings Held in Charlotte and Manteo, North Carolina, on September 5 and 10, 2019, Respectively*.

As always, thank you and your office for your assistance and please feel free to contact me if there are any questions.

**Electronically Submitted**

**s/Jo Anne Sanford**

State Bar No. 6831

Attorney for Carolina Water Service,  
Inc. of North Carolina

c: Parties of Record

STATE OF NORTH CAROLINA  
UTILITIES COMMISSION  
RALEIGH

DOCKET NO. W-354, SUB 364

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of	
Application by Carolina Water Service, Inc. of North Carolina, 4944 Parkway Plaza Boulevard, Suite 375, Charlotte, North Carolina 28217, for Authority to Adjust and Increase Rates for Water and Sewer Utility Service in All of Its Service Areas in North Carolina	)
	<b>REPORT ON CUSTOMER</b>
	<b>COMMENTS FROM PUBLIC</b>
	<b>HEARINGS HELD IN</b>
	<b>CHARLOTTE AND MANTEO,</b>
	<b>NORTH CAROLINA, ON</b>
	<b>SEPTEMBER 5 AND 10, 2019,</b>
	<b>RESPECTIVELY</b>

**NOW COMES** Carolina Water Service, Inc. of North Carolina ("CWSNC" or "Company") and files this report in response to customer concerns raised at the Charlotte public hearing. No customers appeared to testify at the public hearing held in Manteo, North Carolina on September 10, 2019. Therefore, no report for the Manteo public hearing is required.

The public hearing in Charlotte was convened as scheduled at 7:00 p.m. on September 5, 2019, at the Mecklenburg County Courthouse, before Commissioner ToNola D. Brown-Bland, presiding, and Commissioners Lyons Gray and Daniel G. Clodfelter.

Staff Attorney John Little appeared for the Public Staff on behalf of the using and consuming public, accompanied by Public Staff Water Engineer Lindsay Darden. Christina D. Cress, Senior Associate Attorney with the law firm of Nichols, Choi & Lee, PLLC, appeared as counsel for CWSNC. J. Bryce Mendenhall, Vice

President of Operations for CWSNC, was joined by other Company personnel who were present and available to assist customers with questions or requests. The additional Company Personnel in attendance included: Tony Konsul, Regional Director of Operations Western North Carolina; Mark Haver, Area Manager, Charlotte Region; Charles Wood, Area Manager, Charlotte Region; Larry Henry Lead Operator; Deb Clark, Communications and Community Engagement Manager; and Brent Milliron, Health, Safety and Environment Manager.

### **GENERAL RESPONSES TO CUSTOMER ISSUES**

CWSNC believes that it is important to explain some principles and facts that impact both the Company's service obligation and the rules that apply to the rate-setting process for public utilities such as CWSNC, assuring protections to customers. The Company appreciates this opportunity to speak to its concerned customers across its service areas and to its regulators. A discussion of these general principles is attached hereto as Appendix A and they are referred to throughout as "General Responses." The Company's General Responses pertain to important matters and subjects such as proposed rates, rate comparisons, legal compliance regarding notice, level of service inquiries, investment in replacing aging infrastructure, water quality, and secondary water quality.

### **OVERVIEW OF THE CHARLOTTE PUBLIC HEARING**

Four customer witnesses testified, all of whom reside in the Bradfield Farms community. Generally, customers who testified expressed concern about: (1) the

proposed percentage increase in rates; and/or (2) water quality in terms of particulate and hardness issues.

**William Colyer, 7214 Maitland Lane, Bradfield Farms.** Tr. Vol. 1, pp. 15 - 19.

Mr. Colyer testified that he is Secretary and a Director of the Bradfield Farms Homeowners' Association ("HOA"). He presented and offered in evidence a Resolution unanimously adopted by the Board of Directors of the Bradfield Farms HOA on August 26, 2019, in opposition to the proposed rate increase. Mr. Colyer and the HOA resolution expressed a general objection to the rate increase because this would be "the third increase in as many years" and for a few other primary reasons, including (a) CWSNC's proposal for continued recognition of its authority pursuant to G.S. 62-133.11 to pass through in rates any documented increases in the bulk cost of purchased water or wastewater service incurred by the Company in order to serve its retail customers; (b) the Company's stated intent to implement its proposed new rates on a temporary, interim basis, subject to refund, effective January 2020, if the Commission has not issued its Rate Case Order by that date; (c) the Company's proposal to implement a \$250,000 storm reserve fund for extraordinary storm restoration costs such as those experienced in the wake of Hurricane Florence; and (d) an apparent objection to the rates for water and sewer service for customers at Bradfield Farms continuing to be set as part of the Bradfield Farms/Fairfield Harbour/Treasure Cove ("BF/FH/TC") Water and Sewer Rate Divisions.

**CWSNC's Response to Customer Colyer:**

- CWSNC's proposed new rates, including the Company's request to implement a storm reserve fund for extraordinary storm restoration costs, require approval of the Commission, which are set after a fully-litigated, contested case hearing. In addition, CWSNC filed this rate increase Application to seek Commission approval of the recovery of expenditures that are not reflected in the current rates. The Application for a rate increase is investigated and contested by the Public Staff and will also be subject to examination by at least one additional third-party intervenor. Any rate increase will only be allowed by the Commission after a full series of both public and evidentiary hearings. Any investment by CWSNC in utility plant to serve customers is only recoverable after it has been made, placed into service, audited by the Public Staff, and approved by the Commission.
- G.S. 62-133.11 sets forth specific statutory authority for the Commission to approve and pass through in rates any documented increases in the bulk cost of purchased water or wastewater service incurred by the Company in order to serve its retail customers. Because CWSNC does not currently purchase any bulk water or sewer service to serve customers at Bradfield Farms, this statutory pass-through provision does not apply to customers served by the Company in that subdivision.

- G.S. 62-135 sets forth specific statutory authority for CWSNC to implement its proposed rates on a temporary, interim basis, subject to refund and specified notice obligations, effective for service rendered on and after January 28, 2020, assuming that the Commission: (a) suspended the operation of the Company's proposed rates as requested in this Application (which was in fact done); and (b) has not entered a final order by that date. Thus, if CWSNC ultimately decides to implement temporary rates under bond, it will do so in complete compliance with and under the legal authority of, G.S. 62-135.
- The two prior rate increases mentioned by Mr. Colyer were approved by the Commission to allow CWSNC to charge rates based on documented operational and capital expenditures, including a return on rate base, which were evaluated for reasonableness and necessity in transparent, public, contested rate cases. As a public utility, CWSNC is allowed cost recovery (depreciation and a return on rate base) for capital projects only after projects are "used and useful," and in service to customers.
- This is the third general rate case filed by CWSNC since the Commission approved a merger of all the Company's North Carolina systems on August 17, 2016, in Docket No. W-354, Sub 350. This consolidation was a significant step by the Company towards greater efficiency in its North Carolina operations – particularly in its level of regulatory engagement. By the Rate Case Application filed in the Sub

356 docket, CWSNC proposed and was allowed by the Commission to establish the following four Rate Divisions for ratemaking purposes in that proceeding:

CWSNC Uniform Water ("Uniform Water")

CWSNC Uniform Sewer ("Uniform Sewer")

BF/FH/TC Water

BF/FH/TC Sewer

The Bradfield Farms, Fairfield Harbour, and Treasure Cove water and sewer service areas were combined into separate Water and Sewer Rate Divisions for purposes of the Sub 356 rate case with uniform water and sewer rates within each Rate Division. CWSNC's ultimate goal, in future general rate cases, continues to be to migrate Bradfield Farms, Fairfield Harbour, and Treasure Cove into the CWSNC Uniform Water and Sewer Rate Divisions.

- Mr. Colyer brought forward no service quality complaints in his testimony. In addition, witness Colyer has not heretofore contacted the Company to complain about either the water quality or level of service provided by CWSNC.

**Rachel Fields, 10627 Jardin Way, Bradfield Farms.** Tr. Vol. 1, pp. 19 - 32 and 52 – 55.

Ms. Fields objected to the rate increase for monetary reasons, but, in addition, raised both water quality and service issues as part of her opposition to

the requested rate increase. Ms. Fields also referenced antiquated equipment many residents still have in their yards and unanswered requests for repairs on broken meters. Ms. Fields testified that her water appears cloudy and has chemicals in it (and has been that way since she moved into her house in 2016), which she said neither she nor her pets currently consume (they now drink bottled water) and which she contends has caused pets of other neighbors in Bradfield Farms to develop bladder stones and kidney issues. She supplied the names of three other customers who have issues with the water supplied by CWSNC for investigation by the Company. Ms. Fields also brought a drinking glass with her which she used to fill the water bowls of her three small dogs. The glass appeared to have dry white residue on the inside bottom; Ms. Fields testified that the water which she uses to fill this glass is filtered through her refrigerator. The drinking glass was admitted in evidence as Fields Exhibit 1. She did not know the source or cause of the residue on her glass, but opined that it could be caused by either chlorine or calcium. Ms. Fields testified that, on average, her family and pets consume 14 gallons of bottles water per week at a cost of one dollar per gallon to have "safe drinking water."

Ms. Fields testified, in response to a question from Presiding Commissioner Brown-Bland, that she had never previously complained to CWSNC about the quality of her water during the period of time that she has been a customer; she became a customer sometime in 2016.



Ms. Fields stated that she has been told by neighbors that CWSNC wants to increase the Company's water bills "to pay for repairs and upgrades that are needed in our neighborhood to improve our water quality." However, she further testified that "those upgrades and repairs should not be made at the expense of customers." Ms. Fields requested that the rate increase being sought by CWSNC "be denied until visible, quantifiable improvements are made to the water quality and the infrastructure, and equipment is being made available to Bradfield Farms." Ms. Fields also testified that, although she thinks that she was overbilled for water in December 2018, she did not contact the Company at that time, but simply paid the bill (for 12,000 gallons of water when her normal average usage is 3,000 gallons per month) because December is a busy time for her at work.

**CWSNC's Response to Customer Fields:**

- CWSNC's water and sewer rates require approval of the Commission, which are set after a fully-litigated, contested case hearing. CWSNC's investments in utility plant to serve its customers is *only* recoverable after it has been made, placed into service, audited by the Public Staff, and approved by the Commission. As part of its response regarding this issue, CWSNC herein incorporates by reference the more comprehensive response set forth above with regard to the concerns expressed by Mr. Colyer, as well as the General Response regarding proposed rates set forth in Appendix A to this Report.

- According to Company records, Ms. Fields has not previously contacted CWSNC regarding water quality or meter-related issues. CWSNC Staff has retrieved Ms. Field's drinking glass from the Commission, and it has been delivered to a third-party company for testing in order to determine the chemical composite of the white residue. Once the test results are received, CWSNC will file the testing report as part of the record in this proceeding. In addition, the water at Ms. Field's home was recently tested to determine if there is an issue with hardness at Bradfield Farms before it reaches any in-home filters. The testing sample showed the following results: calcium hardness of 127 mg/L and total hardness of 147 mg/L. This is an indication of the presence of hard water at Bradfield Farms. The results of this analysis are attached to this Report as Exhibit 1.
- Water hardness is not regulated by the North Carolina Department of Environmental Quality ("DEQ"). Therefore, CWSNC is not required to provide water softening service to customers.
- For the Company to address the water hardness concerns within the Bradfield Farms community, a water softening system would need to be installed. CWSNC is willing to consider such a project after receiving the clear support of the Bradfield Farms community.

- Regarding Ms. Field's assertion that she believes that that she was overbilled for 12,000 gallons of water in December 2018, her CWSNC billing records indicate that her actual usage as billed during that month (which was 15,800 gallons rather than the 12,000 gallons referenced at the hearing) appears to be in line with her other bills during calendar year 2018. For instance, Ms. Field's average water usage during 2018 was 10,400 gallons per month (versus the average of 3,000 – 4,000 gallons usage per month stated in her testimony), with three months demonstrating higher usage amounts of 14,780 gallons (March 2018), 14,160 gallons (July 2018), and 15,800 gallons (December 2018).
- CWSNC has no information or basis upon which to respond regarding Ms. Field's testimony wherein she contended that the water supplied by CWSNC has caused pets of other neighbors in Bradfield Farms to develop bladder stones and kidney issues. CWSNC considers this testimony to be speculative, without basis in fact, and not a subject upon which the Company can (or should reasonably be expected to) objectively comment.

**William Michael Wade, 11133 Red Spruce Drive, Bradfield Farms.** Tr. Vol. 1, pp. 33 - 41.

Mr. Wade objected to the rate increase for monetary and also raised water quality issues. He also submitted a letter regarding this matter, which was identified and admitted in evidence as Wade Exhibit 1. Mr. Wade testified that he

has lived in Bradfield Farms in his current home for 22 years and has gone through five dishwashers in that time due to an accumulation of sediment and hard water. Mr. Wade conceded, however, that he had not brought these water quality concerns to the Company's attention before he presented his testimony at the public hearing as he considered that a "cost of doing business." Wade Exhibit 1 raises issues and objections related to the alleged excessiveness of the Company's proposed rate increase; CWSNC's request to implement a water and wastewater customer usage tracking rate adjustment mechanism within each of the Company's Rate Divisions; the reduction in the federal corporate income tax rate from 35% to 21%; a comparison of CWSNC's water and sewer rates to average residential rates for those services in North Carolina; and a lack of additional infrastructure having been added by CWSNC to the Bradfield Farms system.

**CWSNC's Response to Customer Wade:**

- CWSNC's rates require approval of the Commission, which are set after a fully-litigated, contested case hearing. CWSNC's investments in utility plant to serve its customers is *only* recoverable after it has been made, placed into service, audited by the Public Staff, and approved by the Commission. As part of its response regarding this issue, CWSNC herein incorporates by reference the more comprehensive response set forth above with regard to the concerns expressed by Mr. Colyer, as well

as the General Response regarding proposed rates set forth in Appendix A to this Report.

- As previously reported above, water hardness is not regulated by DEQ. Therefore, CWSNC is not required to provide water softening service to customers.
- For the Company to address the water hardness concerns within the Bradfield Farms community, a costly water softening system would need to be installed. CWSNC is willing to consider such a project after receiving the clear support of the Bradfield Farms community.
- As asserted by Mr. Wade, CWSNC has in fact requested authority to implement a water and wastewater customer usage tracking rate adjustment mechanism within each of the Company's Rate Divisions. Such a mechanism would do two important things. First, it would track and true-up variations in average per-customer usage from levels approved in a general rate case proceeding. Second, it would balance the risk and impact on customers and shareholders of levels of water and wastewater consumption that are either significantly higher or lower than those levels of consumption that were used to set base rates. Both are necessary components of any rate-making formula that is to efficiently and purposefully recognize and incent conservation, while it simultaneously, fairly and accurately addresses the resultant impact on the Company's revenues. During its 2019 Session, the North Carolina

General Assembly enacted G.S. 62-133.12A (Session Law 2019-88, House Bill 529), which became effective on July 8, 2019. This newly-enacted general statute authorizes the Commission to allow water and sewer utilities in North Carolina, including CWSNC, to implement customer usage tracking rate adjustment mechanisms for water and wastewater rates. This is a decision which will be decided by the Commission in CWSNC's pending general rate case based upon a careful consideration of the evidence to be presented by customers and expert witnesses for the Company and the Public Staff, as well as potential witnesses for other intervening parties.

- Mr. Wade's allegation that CWSNC has benefitted from the federal corporate tax rate deduction from 35% to 21%, which was enacted as part of the Tax Cuts and Jobs Act ("TCJA"), is erroneous. As the Commission is well aware, the benefits of this federal corporate tax rate reduction were voluntarily flowed through by CWSNC to the benefit of customers in the Company's last rate case in Docket No. W-354, Sub 360 (decided by the Rate Case Order issued on February 21, 2019). The Company's current and proposed revenue requirement in this case reflects the actual federal corporate income tax rate of 21%. Thus, CWSNC itself derives no benefit through its cost of service from the federal corporate tax rate reduction referenced by Mr. Wade.

- An attempt, such as that made by Mr. Wade, to make meaningful comparisons between statewide average costs for all water and wastewater service providers and the costs of a provider like CWSNC often results in an “apples to oranges” assessment. The core distinction is found in the concept of “economies of scale.” The costs of serving an individual customer in Raleigh or Charlotte, by a governmental utility enterprise, will likely on average be less than the cost of serving the typical CWSNC customer. The urban areas are densely populated, they generally source water from large surface impoundments or rivers, they treat waste in large central treatment facilities, governmental entities tax their citizens, and they are often not required to utilize “cost-of-service” ratemaking, as are the utilities regulated under Chapter 62 of the General Statutes. Contrast this to the areas served by CWSNC and others like it: often rural, far less densely populated, and frequently served by smaller waste treatment plants and by hundreds of wells, drawing water up from rock and dispersed across the state. The difference in cost attributes are obvious and should inform any conversation about comparisons in respective average costs.

**James Sylvester, 6624 Reedy Creek Road, Bradfield Farms.** Tr. Vol. 1, pp. 41 - 51.

Mr. Sylvester also objected to the rate increase for budgetary reasons (his family is one-income household), but, in addition, raised both water quality and

service issues. He testified that the rate for service that he pays to CWSNC "is quite a bit higher" than what he paid in Ohio and the water quality seems to be "poorer." Mr. Sylvester further stated he installed an external water filter on his refrigerator, because the water and ice that was previously dispensed didn't taste good and left a white, powdery substance in his sink. Since installing the one external water filter, Mr. Sylvester indicated that "we've been good since." Mr. Sylvester testified that he had not raised water quality concerns related to the white, powdery substance with the Company before the public hearing, as he had been advised by neighbors that "that's just the way it's just been for a long time."

As for his service complaint, Mr. Sylvester stated that he has lived in Bradfield Farms for just under six weeks and believes that his water meter is not working properly; he testified that he was billed for 18,000 gallons of usage in the first 22 days of his residing in Bradfield Farms. He worried that there was either a leak or a malfunction which caused an incorrect recording of his usage, since he normally used approximately 6,000 gallons of water per month in Ohio. Mr. Sylvester introduced a copy of one of his Ohio water bills in evidence as Sylvester Exhibit 1.

With regard to his bill from CWSNC for 18,000 gallons of water, Mr. Sylvester stated that he was unable to read his own meter because it was covered in water and mud; and that he called the Company to report a possible malfunctioning meter and waited two weeks for a technician to come assess the situation. According to Mr. Sylvester, he was told that a CWSNC technician came



to his house and that the meter reading was correct and that the meter was fine; but when he checked his meter again, it was still just as covered with mud as before, so he is not convinced that a technician actually came out to read the meter. He also testified that he has not received a satisfactory explanation for his bill for the first 22 days of service at Bradfield Farms.

**CWSNC's Response to Customer Sylvester:**

- CWSNC's rates require approval of the Commission, which are set after a fully-litigated, contested case hearing. CWSNC's investments in utility plant to serve its customers is *only* recoverable after it has been made, placed into service, audited by the Public Staff, and approved by the Commission. As part of its response regarding this issue, CWSNC herein incorporates by reference the more comprehensive response set forth above with regard to the concerns expressed by Mr. Colyer, as well as the General Response regarding proposed rates set forth in Appendix A to this Report.
- Mr. Sylvester's water meter and meter box were recently replaced, and the existing meter was sent for testing to determine if it was working properly. The test results indicate the meter functions properly, registering an accuracy of 99.5%. Therefore, CWSNC has no reason to question the accuracy of the bill for 18,000 gallons of water for his first 22 days of service as challenged by Mr. Sylvester. A copy of the Sylvester meter test results is attached hereto as Exhibit 2.

**CWSNC'S CONCLUDING COMMENT**

CWSNC appreciates the willingness of its customers to participate in this process, and the Company understands customers' opposition to rate increases. However, this is a capital-intensive industry and, since the last rate case, CWSNC has invested more than \$22 million in new water and sewer plant in North Carolina. Therefore, if the new, additional investments made by CWSNC are proved to be necessary and prudent, recovery of those costs is required in order for the Company to continue to provide adequate service. The public's assurance of fairness is found in the strict, highly-skilled oversight of and regulation by the Public Staff and the Commission.

Respectfully submitted, this the 25th day of September 2019.

**ATTORNEYS FOR CAROLINA WATER SERVICE, INC.  
OF NORTH CAROLINA**

SANFORD LAW OFFICE, PLLC

**Electronically Submitted**

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## APPENDIX A

**CWSNC'S RESPONSE TO CUSTOMER CONCERNS  
CHARLOTTE AND MANTEO PUBLIC HEARINGS  
DOCKET NO. W-354, SUB 364**

**GENERAL RESPONSES TO CUSTOMER ISSUES**

1. Proposed Rates – The legal principles that govern ratemaking are set forth in North Carolina General Statutes, Chapter 62, and in rules promulgated by the North Carolina Utilities Commission under those statutes. By law, CWSNC receives a rate increase only if it proves, in the face of an investigation by the Public Staff (and any Intervenor opposition), that such an increase is authorized under the law, based on the actual cost and level of prudent and reasonable investment in plant and operation. Further, investment in plant is *only* recoverable after it has been made, placed into service, and audited by the Public Staff. This principle—referred to as the “used and useful” requirement—applies whether costs are recovered in a general rate case or under a system improvement charge.
2. Rate Comparisons – An attempt to make meaningful comparisons between statewide average costs for all water and wastewater service providers and the costs of a provider like CWSNC often results in an “apples to oranges” assessment. The core distinction is found in the concept of “economies of scale.” The costs of serving an individual customer in Raleigh or Charlotte, by

a governmental utility enterprise, will likely on average be less than the cost of serving the typical CWSNC customer. The urban areas are densely populated, they generally source water from large surface impoundments or rivers, they treat waste in large central treatment facilities, governmental entities tax their citizens, and they are often not required to utilize “cost-of-service” ratemaking, as are the utilities regulated under Chapter 62 of the General Statutes. Contrast this to the areas served by CWSNC and others like it: often rural, far less densely populated, and frequently served by smaller waste treatment plants and by hundreds of wells, drawing water up from rock and dispersed across the state. The difference in cost attributes are obvious and should inform any conversation about comparisons in respective average costs.

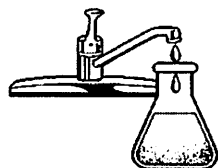
3. Legal Compliance Regarding Notice – In a general rate case, the Public Notice to customers is prescribed by the requirements of statute and is issued by the Commission, based upon the input of CWSNC and the Public Staff. It is a joint effort to provide specific information to all customers about current and proposed rates. In a general rate case like this, the length and complexity of the Public Notice serves the purpose of detail and transparency yet is likely daunting to many customers who attempt to understand all its contents and the personal impact.
4. Investment in Replacing Aging Infrastructure – As documented by the U.S. Environmental Protection Agency (“EPA”) and the American Water Works Association (“AWWA”), significant investment is needed throughout North

Carolina—more than \$20 billion—to replace aging water and wastewater infrastructure, including drinking water pipes, wastewater collection pipes, lift stations, and wastewater treatment facilities.

5. Water Quality – Water quality can be impacted by, among other things, unplanned water main breaks, unexpected malfunctioning of equipment, and challenges when implementing capital projects. CWSNC's primary focus is on providing the highest level of service related to compliance with primary drinking water quality standards. The Company's latest Annual Water Quality Report for Bradfield Farms reflects "no violations." (See Exhibit 3)
6. Secondary Water Quality – The Company is also committed to a high level of service regarding secondary water quality standards. Secondary water quality standards address substances that may impact the taste, odor, or color (i.e., the "aesthetics") of a customer's drinking water.
  - a. Iron – As reflected within CWSNC's latest Annual Water Quality Report for Bradfield Farms, the Company's testing for Iron reveals levels below the Maximum Contaminant Level ("MCL") of 0.3 parts per million ("ppm").
  - b. Hardness – Hardness reflects the relative amounts of calcium and magnesium ions within drinking water. Generally, "hard water" can be found throughout North Carolina, including the coastal areas served by groundwater. It is not uncommon for homeowners served by public and private drinking water systems to own and deploy

drinking water softeners. However, hardness is not regulated by the North Carolina Department of Environmental Quality. The Company's experience is that many drinking water customers possess their own drinking water softeners. Historically, the Company has heard from customers with in-home drinking water softeners that they do not wish to pay for—i.e., subsidize—an expensive system-wide water softener to support other customers within the community who do not have an in-home water softening system. In summary, traditionally, the Company leaves drinking water hardness solutions to the individual preferences of its customers, unless a clear and substantial demand for such a capital investment is made by a community.

- c. The Company's On-Going Commitment to Water Quality – The Company is committed to providing the highest level of service to customers, especially regarding water quality. First, the Company continues to implement its flushing program. Second, the Company has explored purchasing automatic flushing hydrants to install throughout Bradfield Farms and other systems.



**K & W Laboratories**  
 1121 Hwy 24/27 W  
 Midland, North Carolina 28107  
 Tel (704) 888-1211 Fax (704) 888-1511

## Results Report

**Client:** Carolina Water Service, Inc.  
 PO Box 240908  
 Charlotte, NC 28224-0908

**Date:** 19-Sep-19  
**Order ID:** 19091811

**Project:** Drinking Water

**Collect Date:** 9/18/2019

**Location:** BF 10627 Jardin Way

**Collect Time:** 1:18:00 PM

SAMPLE #	PARAMETER	RESULT	UNITS	METHOD	REPORTING LIMIT	ANALYSIS DATE
19091811-01	Calcium Hardness	127	mg CaCO <sub>3</sub> /L	SM3500CaD	1	9/19/2019
19091811-01	Total Hardness	143	mg/L	SM2340C	1	9/19/2019

**Certified By** *G. Kraska*  
 G. Kraska / Lab Director

**NC Certification: 559 SC Certification: 99051**

Sep 25 2019

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Mid America Meter, Inc.  
 710 Hamel Road • Medina, MN 55340  
 Phone: 763-478-8041 • 1-800-324-0365  
 Fax: 763-478-8043

## Meter Test Results

**Tested for:** Carolina Water Service (NC)

### Work Order Information

**Work Order:** 12216

**Test Date:** 9/23/2019

**Tested by:** Tony Simon

### Meter Information

**Size:** 5/8 x 3/4"

**Manufacturer:** Neptune/Schlumberger

**Model:** T10

**Type:** Disk/Piston

**Serial Number:** 520675

**Register Type:** Straight R

**Registration:** USG

**Location:** 6624 reedy creek charlotte

### Register Readings

	Single Register	Dual Register	
		Low	High
<b>Beginning</b>	23,295,239		
<b>Ending</b>	2,329,650		

### Test Results

Before		After	
GPM	Percent	GPM	Percent
15.00	99.50	0.00	0.00
2.00	99.80	0.00	0.00
0.25	100.90	0.00	0.00

This Meter meets or exceeds the AWWA standards.

### Parts

### Comments

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Sep 25 2019



# Carolina Water Service of North Carolina™

## Bradfield Farms Water System

PWS ID: NC0160264

### Annual Water Quality Report 2018

quality of water we delivered to you over the past year.

As your community water utility, we fully appreciate our role in the local community and are committed to providing safe, reliable and cost-effective service to you. All of our employees share in this commitment and strive to serve you with integrity and professionalism.

**We are proud to share this report which provides water quality testing results through December 2018. We continually work to supply water that meets or exceeds all federal and state water quality regulations.**

Our dedicated local team of water quality experts is working in the community everyday ensuring that you, our customer, are our top priority and that we are providing high quality service that protects the environment and benefits our communities - now and in the years to come.

Best regards,

Visit us online at

[www.carolinawaterservicenc.com](http://www.carolinawaterservicenc.com)

Or Join us on Facebook and Twitter

@CarolinaWaterNC



**MY  
UTILITY  
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- Manage account settings
- Monitor usage
- Connect with Customer Service

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Go to [www.carolinawaterservicenc.com](http://www.carolinawaterservicenc.com)

or search "MyUtilityConnect" in the App Store or Google Play Store.

### Water Conservation

Please be reminded that our water systems in North Carolina are always in some stage of either voluntary or mandatory water conservation restriction. These restrictions may vary weekly due to drought conditions and are dictated by a system established by the North Carolina Utilities Commission in an order dated May 23, 2008. The customers are encouraged to keep informed of current restrictions by visiting [www.carolinawaterservicenc.com](http://www.carolinawaterservicenc.com) and clicking on the "Community Drought Status" link on the front page or call our customer service at (800) 525-7990.

### Help Protect our Resources

Help put a stop to the more than **1 trillion gallons of water lost annually** nationwide due to household leaks. These easy to fix leaks waste the average family the amount of water used to fill a backyard swimming pool each year. Plumbing leaks can run up your family's water bill an extra 10 percent or more, but chasing down these water and money wasting culprits is as easy as 1—2—3. Simply check, twist, and replace your way to fewer leaks and more water savings:

- ⇒ **Check** for silent leaks in the toilet with a few drops of food coloring in the tank, and check your sprinkler system for winter damage.
- ⇒ **Twist** faucet valves; tighten pipe connections; and secure your hose to the spigot. For additional savings, twist a WaterSense labeled aerator onto each bathroom faucet to save water without noticing a difference in flow. They can save a household more than 500 gallons each year—equivalent to the amount water used to shower 180 times!
- ⇒ **Replace** old plumbing fixtures and irrigation controllers that are wasting water with WaterSense labeled models that are independently certified to use 20 percent less water and perform well.

For more information visit [www.epa.gov/watersense](http://www.epa.gov/watersense).

**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.**

*Este informe contiene información muy importante sobre su agua beber. Tradúzcalo ó hable con alguien que lo entienda bien.*

## EPA Wants You To Know

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 include:

- A. **Microbial contaminants**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- B. **Inorganic contaminants**, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- C. **Pesticides and herbicides**, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- D. **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.
- E. **Radioactive contaminants**, which can be naturally occurring or be the result of oil and gas production and mining activities.

### What measures are in place to ensure water is safe to drink?

In order to ensure that tap water is safe to drink, the EPA prescribes regulations, which limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

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 Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

### Special notice from EPA for the elderly, infants, cancer patients and people with HIV/AIDS or other immune system problems

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).

### Information Concerning Lead in Water

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. Carolina Water Service, Inc. of North Carolina 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 you can take to minimize exposure is available from the Safe Drinking Water Hotline or at [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).

Water that remains stationary within your home plumbing for extended periods of time can leach lead out of pipes joined with lead-containing solder as well as brass fixtures or galvanized pipes. Flushing fixtures has been found to be an effective means of reducing lead levels. The flushing process could take from 30 seconds to 2 minutes or longer until it becomes cold or reaches a steady temperature. Faucets, fittings, and valves, including those advertised as "lead-free," may contribute lead to drinking water. Consumers should be aware of this when choosing fixtures and take appropriate precautions. Visit the NSF Web site at [www.nsf.org](http://www.nsf.org) to learn more about lead-containing plumbing fixtures.

### Drain Disposal Information

Sewer overflows and backups can cause health hazards, damage home interiors, and threaten the environment. A common cause is sewer pipes blocked by grease, which gets into the sewer from household drains. Grease sticks to the insides of pipes. Over time, the grease can build up and block the entire pipe. Help solve the grease problem by keeping this material out of the sewer system in the first place:

- Never pour grease down sink drains or into toilets. Scrape grease into a can or trash.
- Put strainers in sink drains to catch food scraps / solids for disposal.

### Prescription Medication and Hazardous Waste

Household products such as paints, cleaners, oils, and pesticides, are considered to be household hazardous waste. Prescription and over-the-counter drugs poured down the sink or flushed down the toilet can pass through the wastewater treatment system and enter rivers and lakes (or leach into the ground and seep into groundwater in a septic system). Follow the directions for proper disposal procedures. **Do not flush hazardous waste or prescription and over-the-counter drugs down the toilet or drain.** They may flow downstream to serve as sources for community drinking water supplies. Many communities offer a variety of options for conveniently and safely managing these items. For more information, visit the EPA website at: [www.epa.gov/hw/household-hazardous-waste-hhw](http://www.epa.gov/hw/household-hazardous-waste-hhw).

**The Safe Drinking Water Act** was passed in 1974 due to congressional concerns about organic chemical contaminants in drinking water and the inefficient manner by which states supervised and monitored drinking water supplies. Congress' aim was to assure that all citizens served by public water systems would be provided high quality water. As a result, the EPA set enforceable standards for health-related drinking water contaminants. The Act also established programs to protect underground sources of drinking water from contamination.

**Understanding This Report** In order to help you understand this report, we want you to understand a few terms and abbreviations that are contained in it.

Action level (AL)	The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
EPA	Environmental Protection Agency.
Maximum Contaminant Level (MCL)	The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible using the best available treatment technology.
Maximum Contaminant Level Goal (MCLG)	The "goal" is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's 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 microbial 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.
Not applicable (N/A)	Not applicable.
Not Detected (ND)	This means not detected and indicates that the substance was not found by laboratory analysis.
Parts per million (ppm) or Milligrams per liter (mg/l)	One part per million corresponds to one minute in two years or a single penny in \$10,000.
Parts per billion (ppb) or Micrograms per liter (ug/l)	One part per billion corresponds to one minute in 2,000 years or a single penny in \$10,000,000.
Picocuries per liter (pCi/L)	A measure of radioactivity in the water.
Locational Running Annual Average (LRAA)	The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters under the Stage 2 Disinfectants and Disinfection Byproducts Rule.
Running Annual Average (RAA)	Calculated running annual average of all contaminant levels detected.
Treatment Technique (TT)	A required process intended to reduce the level of a contaminant in drinking water.

### Source Water Assessment Program (SWAP)

The North Carolina Department of Environmental Quality (DEQ), Public Water Supply (PWS) Section, Source Water Assessment Program (SWAP) conducted assessments for all drinking water sources across North Carolina. The purpose of the assessments was to determine the susceptibility of each drinking water source (well or surface water intake) to Potential Contaminant Sources (PCSs). The results of the assessment are available in SWAP Assessment Reports that include maps, background information and a relative susceptibility rating of Higher, Moderate or Lower.

The relative susceptibility rating of each source for Bradfield Farms was determined by combining the contaminant rating (number and location of PCSs within the assessment area) and the inherent vulnerability rating (i.e., characteristics or existing conditions of the well or watershed and its delineated assessment area.). The assessment findings are summarized in the table below:

#### Susceptibility of Sources to Potential Contaminant Sources (PCSs)

Source Name	Susceptibility Rating	SWAP Report Date
Well #1	Higher	04/21/2017
Well #2	Moderate	04/21/2017
Well #3	Moderate	04/21/2017
Well #4	Moderate	04/21/2017
Well #6	Moderate	04/21/2017
Well #7	Moderate	04/21/2017

The complete SWAP Assessment report for Bradfield Farms may be viewed on the Web at: [www.ncwater.org/?page=600](http://www.ncwater.org/?page=600). Note that because SWAP results and reports are periodically updated by the PWS Section, the results available on this web site may differ from the results that were available at the time this CCR was prepared. If you

are unable to access your SWAP report on the web, you may mail a written request for a printed copy to:

Source Water Assessment Program – Report Request,  
1634 Mail Service Center, Raleigh, NC 27699-1634, or email requests to [swap@ncdenr.gov](mailto:swap@ncdenr.gov). Please indicate your system name, number, and provide your name, mailing address and phone number. If you have any questions about the SWAP report please contact the Source Water Assessment staff by phone at 919-707-9098.

It is important to understand that a susceptibility rating of "higher" does not imply poor water quality, only the system's potential to become contaminated by PCSs in the assessment area.

### Monitoring Your Water

We routinely monitor for over 150 contaminants in your drinking water according to Federal and State laws. The tables below list all the drinking water contaminants that we detected in the last round of sampling for each particular contaminant group. The presence of contaminants does not necessarily indicate that water poses a health risk. **Unless otherwise noted, the data presented in this table is from testing done January 1 through December 31, 2018.** The EPA and the State allow 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.

### If You Have Questions Or Want To Get Involved

Carolina Water Service, Inc. of North Carolina does not hold regular public meetings. If you have any questions about this report or concerning your water, or would like a company representative to attend an upcoming homeowners association meeting, please contact Customer Service at 1-800-525-7990.



## Water Quality Test Results

### Radiological Contaminants

Contaminant (units)	Sample Date	MCL Violation Y/N	Your Water	Range Low High	MCLG	MCL	Likely Source of Contamination
Alpha emitters excluding radon and uranium (pCi/L)	2018	N	2.32	ND - 2.32	0	15	Erosion of natural deposits
Uranium (pCi/L)	2018	N	2.28	ND - 2.28	0	20.1	Erosion of natural deposits
Combined radium (pCi/L)	2018	N	1.0	ND - 1.0	0	5	Erosion of natural deposits

### Inorganic Contaminants

Fluoride (ppm)	2018	N	0.72	0.18 - 0.72	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
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### Disinfectant Residuals

Contaminant (units)	Year Sampled	MRDL Violation Y/N	Your Water (highest RAA)	Range Low High	MRDLG	MRDL	Likely Source of Contamination
Chlorine (ppm)	2018	N	0.99	0.61 - 1.8	4	4	Water additive used to control microbes

### Microbiological Contaminants in the Distribution System

Contaminant (units)	Date	Violation	Value	MCL/TT	MCLG	Likely Source of Contamination
Total Coliform Bacteria (presence or absence)	10/2/2018	No	Present (1 sample)	TT*	0	Naturally present in the environment

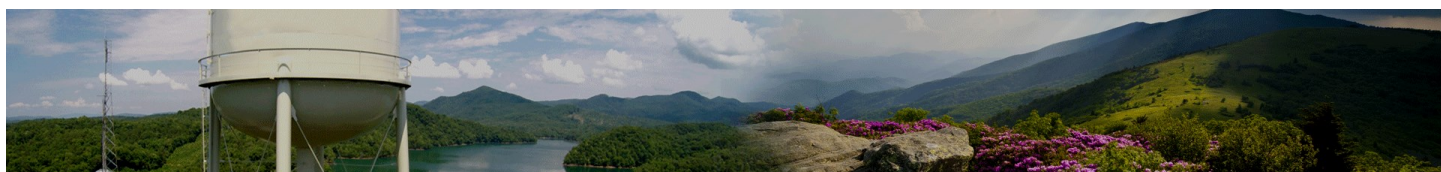
\*If a system collecting fewer than 40 samples per month has two or more positive samples in one month, an assessment is required. We collect three coliform samples per month, and in October 2018, one of three monthly compliance samples showed the presence of total coliform bacteria. Repeat samples were collected, none of which showed total coliform bacteria present.

*Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system.*

### Lead and Copper Contaminants

Contaminant (units)	Sample Date	Your Water	# of sites found above the AL	MCLG	MCL	Likely Source of Contamination
Copper (ppm) (90 <sup>th</sup> percentile)	Aug 2018	0.105	0	1.3	AL= 1.3	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives.

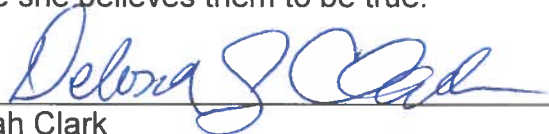
**Violations:** In 2018, Carolina Water Service, Inc. of North Carolina performed all required monitoring for contaminants. In addition, **no violations** from the North Carolina Department of Environmental Quality were received and we were in compliance with applicable testing and reporting requirements.



## VERIFICATION

**Deborah Clark**, being duly sworn, deposes and says:

That she is the Communications and Community Engagement Manager for Carolina Water Service, Inc. of North Carolina; that she is familiar with the facts set out in this **REPORT ON CUSTOMER COMMENTS FROM PUBLIC HEARINGS IN CHARLOTTE AND MANTEO, NORTH CAROLINA, HELD ON SEPTEMBER 5 AND 10, 2019, RESPECTIVELY**, filed in Docket No. W-354, Sub 364; that she has read the foregoing Report and knows the contents thereof; and that the same is true of her knowledge except as to those matters stated therein on information and belief, and as to those she believes them to be true.



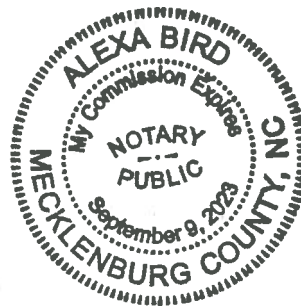
Deborah Clark  
Communications and Community Engagement  
Manager  
Carolina Water Service, Inc. of North Carolina

Sworn to and subscribed before me this  
the 15 day of September, 2019.



Notary Public

My Commission Expires: September 9<sup>th</sup>, 2023



**CERTIFICATE OF SERVICE**

I hereby certify that on this the 25th day September, 2019, a copy of the foregoing **REPORT ON CUSTOMER COMMENTS FROM PUBLIC HEARINGS IN CHARLOTTE AND MANTEO, NORTH CAROLINA, HELD ON SEPTEMBER 5 AND 10, 2019, RESPECTIVELY** has been duly served upon all parties of record by electronic service, as follows:

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