

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

October 30, 2019

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

Via Electronic Delivery

Re: Docket No. W-354, Sub 364
Carolina Water Service, Inc. of North Carolina
*Report on Customer Comments from Public Hearing Held in
Raleigh, North Carolina, on October 14, 2019*

Dear Ms. Campbell:

Attached for electronic filing please find Carolina Water Service, Inc. of North Carolina's *Report on Customer Comments from Public Hearing Held in Raleigh, North Carolina, on October 14.*

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

Attorneys Gina Holt and Zeke Creech appeared for the Public Staff on behalf of the using and consuming public, accompanied by Public Staff Water Engineers Gina Casselberry and Lindsay Darden. Don Denton, President of CWSNC, was accompanied by other Company personnel (Dana Hill, CWSNC's Regional Director, and Stephen Harrell, the Company's Area Manager). The CWSNC personnel in attendance were present and available to assist customers

with questions or requests. Robert H. Bennink, Jr., Bennink Law Office, appeared as counsel for CWSNC.

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 this Report 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.

Furthermore, in 2018, CWSNC performed all required monitoring for contaminants for the two utility systems represented by customers who testified at the Raleigh public hearing. No violations from the North Carolina Department of Environmental Quality were received and the Company was in compliance with applicable testing and reporting requirements for the Carolina Trace system. Specifically, Carolina Trace had no water quality issues to report. Ashley Hills North reported combined radium on one sample which exceeded the applicable standard during the second calendar quarter of 2018 at Well #3. CWSNC began

quarterly monitoring and has had subsequent detections, but no exceedances, at Ashley Hills North since the second calendar quarter 2018 monitoring. However, due to the one high result, the running annual average result for combined radium exceeded the applicable standard during the 12-month period ended March 31, 2019. The Ashley Hills North system returned to compliance during the second calendar quarter of 2019. Currently, no remedial action is required by CWSNC at Ashley Hills North and the 2018 Report indicated the existence of no other water quality issues. Copies of the Company's 2018 Water Quality Reports for Carolina Trace and Ashley Hills North are attached hereto as Exhibits 1 and 2, respectively.

OVERVIEW OF THE RALEIGH PUBLIC HEARING

Four customer witnesses testified, including three witnesses from Carolina Trace in Sanford and one witness from the Ashley Hills North Subdivision in Knightdale. The witnesses principally objected to the rate increase, but also expressed concerns regarding issues related to matters such as boil water notices and system repairs.

SPECIFIC RESPONSES TO CUSTOMER TESTIMONY FROM RALEIGH

Alfred Rushatz, Carolina Trace, 199 Saw Timber Road, Sanford, North Carolina 27332. *Tr. Vol. 5, pp. 14 – 23.*

Mr. Rushatz is a realtor; his firm is named Carolina Trace Gated Properties, LLC ("CTGP"). The Commission's Official File for this docket also contains a letter from Mr. Rushatz written to David Drooz, the Chief Counsel of the Public Staff dated October 8, 2019 (and filed in the docket on October 15, 2019). In his letter

and testimony, Mr. Rushatz stated that was addressing this case from a real estate business perspective. He testified that the “high” water and sewer rates charged by CWSNC cause loss of real estate sales at Carolina Trace.

As part of his testimony, Mr. Rushatz offered in evidence Rushatz Exhibit 1, which consisted of a “Talking paper for PWC meeting” and a copy of one of his water and sewer bills (dated September 26, 2019). Mr. Rushatz testified that, if he reduced his monthly water usage by fifty percent, his combined water and sewer bill would only be reduced by a little over \$3.00 off of an \$80 bill, which he said “isn’t very impressive.” *Tr. Vol. 5, p.16. lines 21 - 24.*

In his October 8th letter, Mr. Rushatz included the following additional complaint:

As an aside, we at CTGP are becoming leery of the **warning signs** at the CT [Carolina Trace] front entrance gate reading "boil water until further notice," and road caution signs around digs in the roads constantly appearing to repair some CWSNC problem or breakdown. Obviously if we can see them, then so can our clients who certainly are not impressed with such conditions. Again, a big negative from a real estate point of view. (Emphasis in original)

CWSNC’s Response to Customer Rushatz:

With respect to Mr. Rushatz’s testimony regarding what he described as the “high” water and sewer rates being charged by CWSNC, the Company observes that 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 a comprehensive and detailed investigation

by the Public Staff (and any Intervenor opposition), that such an increase is authorized under the law and is based on the actual cost and level of prudent and reasonable investment in plant and operation. Thus, CWSNC's water and sewer rates require approval of the Commission, and they are set only after a fully-litigated, contested case hearing. CWSNC filed its pending rate increase Application to seek Commission approval of the recovery of expenditures that are not reflected in the Company's current rates. The Company's investment in utility plant is *only* recoverable after it has been made, placed into service, audited by the Public Staff, and approved by the Commission. 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.

CWSNC understands the opposition to rate increases from customers and business owners like Mr. Rushatz, but notes that the increases---when they are authorized by the North Carolina Utilities Commission---are based upon proof by the utility (in this case CWSNC) of investment and expenditures, as necessarily made in order to provide adequate service to customers and to allow the Company to have an opportunity to earn a reasonable return. The water and sewer business is a very capital-intensive industry and, since the Company's 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 to its customers.

Mr. Rushatz complained that if he reduced his water consumption by 50 percent his combined water and sewer bill for September 2019, would have only been reduced by a little over \$3.00 off an \$80 utility bill. That statement is true, but what it does not consider is that Mr. Rushatz is, commendably, a low-volume water customer. He used only 1,070 gallons of water during the September 2019 billing period. His bill indicates that his average daily cost for water and sewer utility service during that billing period was \$2.44 (or \$2.58 before applicable tax refunds), which is also low.

In CWSNC's last rate case (Docket No. W-354, Sub 360), the Commission set CWSNC's water rates based upon a ratio of 52%/48% base or fixed charges to usage charges.¹ The Company's approved sewer rates were based upon a ratio of 80%/20% base or fixed charges to usage charges. The base charges set by the Commission for both CWSNC's water and sewer services are designed to allow the Company to recover a reasonable portion of the Company's fixed charges to make available and provide utility service to customers on demand and on an ongoing basis, irrespective of the customer's actual usage. That is the purpose of the monthly base charges for water (\$27.53) and sewer (\$46.31) currently being paid by all customers at Carolina Trace and those charges were specifically set and approved by the Commission by its Sub 360 rate case order

¹ In the Sub 360 rate case order dated February 21, 2019, the Commission noted at page 107 that Public Staff Water Engineer Gina Casselberry testified that approximately 75% of the Company's water service costs are fixed and that CWSNC witness DeStefano testified that 80% of the Company's water service costs are fixed.

dated February 21, 2019. Thus, CWSNC submits that the total monthly water and sewer rates paid by Mr. Rushatz are fair and reasonable to him even though he is a low-volume user and consumer of the Company's services.

Whether a rate design has a higher or a lower base facilities charge, the approved rates are designed to allow for the revenue recovery that is authorized by the Commission. Further, some customers prefer a higher fixed charge and a lower volumetric charge, while others favor the opposite. Mr. Rushatz's complaint is one example of that diversity of opinion.

Regarding Mr. Rushatz's testimony concerning warning signs about boil water notices and road caution signs around digs in the roads, the Company makes every attempt possible to minimize disturbances related to operational issues that would necessitate the need for a boil water advisory or facility repairs. Upon review of the issue related to use of boil water advisory signs mentioned by Mr. Rushatz, the Area Manager for the community states that it is not CWSNC that places these signs at the entrance. CWSNC Staff does not rely on any signs for boil water advisories since the Company has a customer contact system that utilizes emails, text messages, or phone calls to contact and notify those who are impacted. For instance, CWSNC notifies customers of any water main break repairs that result in a boil water advisory. A boil water advisory is only issued when the Company loses system pressure, such as during main breaks or supply interruptions, and the water pressure drops below 20 pounds per square inch.

When that happens, the system becomes susceptible to conditions favorable for backflow or back-siphonage.

Vince Roy, Carolina Trace, 237 Lakeview Drive, Sanford, North Carolina, 27332. *Tr. Vol. 5, pp. 23 -32.*

Mr. Roy is the Utilities Representative for the Carolina Trace community and has served in that capacity for 13 years. He attends the monthly meetings of the Carolina Trace property owners' association ("POA") to keep members apprised of water and sewer issues. He also meets quarterly with representatives of CWSNC. Those meetings are held at Carolina Trace and were described by Mr. Roy as being, in the past, effective in resolving "local issues and problems regarding our water and sewer operation." *Tr. Vol. 5, p. 25, lines 3 – 5.*

Mr. Roy expressed concern about the magnitude of the water and sewer rates increases being requested by CWSNC. He also expressed concern about CWSNC's use of the provisions of G.S. 62-133.12, which became effective on June 12, 2013, entitled "Rate adjustment mechanism based on investment in repair, improvement, and replacement of water and sewer facilities." Mr. Roy seemed to, in effect, believe that the Company is somehow taking, or receiving, unfair advantage through its use of this statutorily-authorized rate adjustment mechanism.

Mr. Roy also asserted an opinion that CWSNC management has experienced a degradation in its concern for customers. He brought up CWSNC's GPS/GSI mapping project of the Company's water and sewer lines and noted that

customers have provided assistance in locating manholes. Mr. Roy testified that CWSNC refused a request in July 2019, from the 18 POAs at Carolina Trace for the Company to provide the maps so that the POAs could use that data when they have construction people out to repair roads in an effort to avoid cutting water and sewer lines.

Mr. Roy also stated that CWSNC has denied customers the opportunity to communicate directly with the Company's two on-site engineers. He submitted that the prior communication practice was very helpful for residents in addressing service problems they had been experiencing. He testified that CWSNC employees have been very generous with their time, but "now the new dictate is that we'll no longer be allowed to communicate directly with your two people on station at Carolina Trace" because "they're too busy to take time to help us." *Tr. Vol. 5, p. 28, lines 6 – 9 and p. 30, lines 9 – 10.*

As further evidence of his assertion that CWSNC lacks concern for its customers, Mr. Roy cited the position the Company took in its last rate case regarding passing through the benefits of a federal corporate tax reduction to its customers.

Mr. Roy supplemented his oral testimony with a two-page written statement that was admitted in evidence as Roy Exhibit 1.

CWSNC's Response to Customer Roy:

Regarding Mr. Roy's expressed concern about the magnitude of the water and sewer rates increases being requested by CWSNC, the Company notes that

its 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 are only recoverable after they have 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. Rushatz, as well as the General Response regarding proposed rates set forth in Appendix A to this Report.

With respect to Mr. Roy's concern about CWSNC's use of the provisions of G.S. 62-133.12, CWSNC notes that this statutory provision, which became effective on June 12, 2013, allows water and sewer utilities, including CWSNC, to file semi-annual applications, pursuant to formal rules and procedures adopted by the Commission, to recover incremental depreciation expense and capital costs associated with reasonable and prudently incurred investments in eligible water and sewer system improvements. Mr. Roy's apparent belief that the Company is somehow taking, or receiving, unfair advantage through its use of this statutorily-authorized rate adjustment mechanism is simply misplaced and incorrect.

CWSNC has been very judicious in its use of this legislatively-authorized rate adjustment mechanism and has never imposed the maximum surcharge percentage charge of five percent for either water or sewer service. In fact, as Mr. Rushatz's September 2019 bill (Rushatz Exhibit 1) indicates, CWSNC does not presently have a water system improvement surcharge in effect for Carolina

Trace customers and the sewer system surcharge currently in effect amounted to only \$0.06 on his bill. CWSNC hopes that this explanation regarding operation of the legislatively-authorized water and sewer system improvement surcharge mechanisms will serve to clarify and correct any misconceptions that may exist in the minds of the Company's customers.

CWSNC disputes Mr. Roy's assertion that there has been a "degradation" in the Company's concern for its customers. The Company values its customers and believes that it has shown, over many years, a willingness to work with and accommodate, when reasonable, the Carolina Trace POA, as well as Mr. Roy and the Company's other customers. Nevertheless, there may be times when the Company cannot, in the eyes of the POA (or Mr. Roy), accommodate specific requests based upon legitimate business-related reasons.

For instance, CWSNC has informed Mr. Roy that it cannot make its GIS maps available to the Carolina Trace POA due to possible security concerns. All contractors working in the community are required to call NC811 to locate water and wastewater lines before removing dirt, which provides protection for both the POA and CWSNC.

In addition, on July 18, 2019, CWSNC attended a Carolina Trace POA meeting. Mr. Roy was in attendance. At this meeting, CWSNC staff requested that Mr. Roy and other customers not call Company operators' cell phones directly when reporting leaks or other emergencies, particularly after hours. Company staff explained how an issue could potentially arise during an emergency when the

employee who the customer is trying to contact is not specifically on-call at the time. The Company's response time may be significantly delayed in that circumstance. CWSNC staff explained that, by utilizing the Customer Service number, there would be a quicker response by the Company as well as a record of the time and nature of the emergency. CWSNC staff spoke with Mr. Roy after the public hearing and clarified its position, stating that Mr. Roy is certainly welcome to directly contact operators for routine matters during the workday if the issue is not time-sensitive.

Regarding Mr. Roy's non-specific criticism related to the position the Company took in its last general rate case regarding passing through the benefits of a federal (not state) corporate tax reduction to its customers, CWSNC simply responds that the Company has fully passed through all of the benefits which flowed from the Federal Tax Cuts and Jobs Act to the benefit of its customers, including Mr. Roy. Mr. Roy's criticism that CWSNC did not "see fit to pass that reduction on to us residents" is unwarranted. The Company's current and proposed revenue requirements in this case reflect 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. Roy. The Commission, in the Company's Sub 360 rate case order dated February 21, 2019, devoted more than sixteen pages (plus findings of fact) evaluating and deciding the complex issues that accompanied implementation of the federal corporate tax rate reduction and CWSNC has fully complied with that decision. The issues

litigated by the Company in that case were relatively minor when considered in the totality of the issues raised by the Federal Tax Cuts and Jobs Act.

Mark Gibson, Ashley Hills North Subdivision, 3316 Smithfield Road, Knightdale, North Carolina. *Tr. Vol. 5, pp. 32 - 39.*

Mr. Gibson testified that he has been a water and sewer customer of CWSNC at his current address for 33 years and that he has seen a "good many" rate increases during that time. *Tr. Vol. 5, p. 33, lines 7 – 10.* He testified that, based on his understanding of the Company's rate increase application, his "sewer will increase by 29 percent, the water base charge will increase by 8 percent just for having a meter, and the charge per 1,000 gallons of water would be -- would increase by 24.6 percent." *Tr. Vol. 5, p. 33, lines 10 – 16.* He expressed interest in knowing about the Company's business practices regarding matters such as procurement practices, whether CWSNC employs a competitive bidding process, etc. and whether customers are "getting value for their money." *Tr. Vol. 5, p. 34, lines 17 - 24 and p. 35, lines 1 - 5.*

Mr. Gibson stated that his primary reason for attending the public hearing was the magnitude of the request. He offered in evidence two of his CWSNC utility bills as Gibson Exhibit 1 to illustrate the Company's rate increases, on average, over the last six years. The first bill is dated July 16, 2013, and the second bill is dated September 19, 2019. Mr. Gibson stated that:

In July of 2013, my total water and sewer bill was \$78.98. This month, October 2019, my total water and sewer bill is \$135.26. That amounts to a 71 percent increase over six years or an average of 11.8 percent per year. For a comparison, I looked up the Consumer

Price Index for exactly the same period and it is 23.163 percent or 3.86 percent per year. So the -- over the last six years the cost of my water and sewer has averaged over three times the -- the rate of inflation. *Tr. Vol. 5, p. 34, line 2 – 10.*

In response to a question from the Public Staff, Mr. Gibson testified that he did not have anything negative to say about the service CWSNC provides.

CWSNC's Response to Customer Gibson:

CWSNC appreciates the fact that Mr. Gibson had nothing negative to say about the quality of the utility service he receives from the Company and the fact that he voiced no service complaints.

In response to the concerns expressed by Mr. Gibson regarding his dissatisfaction with the Company's current rate increase request and the magnitude thereof, it is noted that neither CWSNC nor any other regulated utility in North Carolina is guaranteed a specific return or profit. Chapter 62 of the North Carolina General Statutes provides, generally, that after a contested case evaluation in a rate case and upon a decision by the Commission, a utility has the *opportunity* to earn an "authorized" return. It is an opportunity, not a guarantee.

As previously stated, CWSNC's water and sewer rates require approval of the Commission, and they are set after a fully-litigated, contested case hearing. CWSNC's investments in utility plant to serve its customers are *only* recoverable after they have been made, placed into service, audited by the Public Staff, and approved by the Commission. Furthermore, as part of its response regarding this issue, CWSNC herein incorporates by reference the prior responses set forth in

this Report to the similar testimony offered by customer witnesses Rushatz and Roy.

David Smoak, Carolina Trace, 96 Northridge Trail, Sanford, North Carolina.
Tr. Vol. 5, pp. 40 – 49.

Mr. Smoak testified that he is the President of the Carolina Trace Association, a representative organization of 18 independent property owner associations in Carolina Trace, with approximately 1,600 homes and over 4,000 residents. Mr. Smoak emphasized that he was appearing and testifying as a CWSNC customer and not on behalf of, or expressing any opinions on behalf of, the Carolina Trace Association.

Mr. Smoak began his testimony with the following positive comments regarding CWSNC:

First, I would like to thank Carolina Water Service for providing essential services to our community. Without clean, safe water there is no life, and as a retired Army soldier, I am well aware that public sanitation and sewage treatment has saved more human lives from sickness and death than all the doctors and hospitals in the world.
Tr. Vol. 5, p. 41, lines 3 – 9.

Mr. Smoak then expressed three points of concern. He questioned the level of rates increases requested by and granted to CWSNC when compared to increases in the CPI as a reflective of national inflation and stated that “this further rate increase, if approved, will further exacerbate the deteriorating personal finances of many people.” *Tr. Vol. 5, p. 41, lines 17 – 20.* He urged the Commission and the Public Staff to “continue to inspect and challenge the declared

cost of CWS to differentiate between reasonable and unreasonable costs that are expected to be borne by us residents.” *Tr. Vol. 5, p. 42, lines 1 – 5.*

Mr. Smoak then stated that, at one time, residents of Carolina Trace were allowed to provide their own septic wastewater service on their own property and that there are several homes that still have septic systems. Mr. Smoak stated that, at some point, all residents were forced to switch their septic systems to CWSNC sewage before they could sell their homes. He believes this came about as a result of an agreement between the POA and CWSNC. According to Mr. Smoak, this was a great idea at the time, but he is now concerned that the Company’s rapidly escalating wastewater increases are going to harm the very housing market that is served by the Company. Mr. Smoak requested that the Commission to consider giving citizens the future option to disconnect from CWSNC wastewater services if the Company continues to refuse to control its costs.

Finally, Mr. Smoak requested that the Commission “allow its future hearings to be scheduled closer to the residential populations that are being affected. For small-town residents to travel to the state capital (sic) for public hearings is daunting at best, and for many seniors the night driving is an additional risk factor that they will avoid.” *Tr. Vol. 5, p. 43, line 13 – 19.*

In response to questions from Presiding Commissioner Brown-Bland, Mr. Smoak stated that Carolina Trace is an older community which is subject to water pressure or water break issues and that residents speak to him and Mr. Roy about communication problems related to boil water advisories; specifically, as to

when they begin and when they are concluded. He stated that “I frequently hear that one or the other is missing. You know, sometimes they will be told that the boil water advisory has ended and they never got the word that it began, and some people will say, well, I was told that it began and they never hear until they talk to a neighbor that it ended.” *Tr. Vol. 5, p. 47, lines 15 -24 and p. 48, lines 1 – 7.*

In response to questions from CWSNC’s counsel, Mr. Smoak testified that he did not attend the public hearing with the intent to address issues or problems related to the quality of service provided by CWSNC and that he does not personally have any problems with the water and sewer utility service he receives from the Company.

CWSNC’S Response to Customer Smoak:

CWSNC appreciates Mr. Smoak’s testimony indicating that he does not personally have any problems with the water and sewer utility service he receives from the Company. In addition, CWSNC appreciates Mr. Smoak’s statement of appreciation and recognition of the essential services which the Company provides to the Carolina Trace community through the provision of “clean, safe water” and necessary sanitary sewage treatment service.

In response to Mr. Smoak’s testimony in opposition to CWSNC’s rate increase request, the Company again submits that water and sewer rates require approval of the Commission, which are set after a fully-litigated, contested case hearing. Under the North Carolina Public Utilities Act, Chapter 62 of the General Statutes, the Company is legally entitled to file an application for rate relief at any

time it determines in good faith that its level of earnings is insufficient, premised upon its ability to demonstrate increased investment in utility plant and/or increased operating and maintenance expenses. Since the Company's last rate case, CWSNC has invested more than \$22 million in new water and sewer plant in North Carolina. Because the regulated water and sewer utility business is a very capital-intensive industry, CWSNC's earnings must be maintained at a level sufficient to assure access to capital on reasonable terms so that the Company may, at all times, provide reasonable and adequate service to its customers. Unfortunately, this may necessitate more frequent rate case filings, which are, understandably, objectionable to customers, but necessary for public utilities like CWSNC. Furthermore, as part of its response regarding this issue, CWSNC herein incorporates by reference the prior responses set forth in this Report to the similar testimony offered by customer witnesses Rushatz, Roy, and Gibson.

With respect to Mr. Smoak's request that the Commission consider giving Carolina Trace customers an option in the future to disconnect from CWSNC's wastewater services if the Company continues to refuse to control its costs, CWSNC notes that the February 15, 1991 Declaration of Covenants for Carolina Trace provides, in pertinent part, as follows:

Q. Central water and sewer are available to all lots. It is mandatory that each property owner of each home built in this subdivision connect to the central water and sewer systems. No private water or sewer systems shall be allowed except that a well, for irrigation purposes only, may be allowed if approved by the Architectural Committee. (Article 18 General Requirements, Paragraph Q, Lee County Register of Deeds, Book 456, Page 965)

CWSNC is providing water and sewer utility service at Carolina Trace consistent with this provision in the Declaration of Covenants and the Certificate of Public Convenience and Necessity granted by the Commission.

Regarding Mr. Smoak's request that future hearings be scheduled closer to the residential populations that are being affected, CWSNC is mindful both of the customers' interest in having public hearings near their homes and of the Utilities Commission's constraints on scheduling. Adequacy of security is a limiting factor for the Commission, and the Company's systems are widely scattered across the state, making it very difficult to address the widespread interests in a "local" hearing. Obviously CWSNC is pleased to appear whenever and wherever the Commission schedules public hearings in cases filed by the Company.

In response to Mr. Smoak's testimony that residents of Carolina Trace complain about communication problems related to boil water advisories (specifically, as to when they begin and when they are concluded), CWSNC's policy is to notify customers of any water main break repairs that result in a boil water advisory. A boil water advisory is only issued when the Company loses system pressure, such as during main breaks or supply interruptions, and the water pressure drops below 20 pounds per square inch. When that happens, the system becomes susceptible to conditions favorable for backflow or back-siphonage. In some instances, there are only specific streets that are

impacted by the boil water advisory. Only the affected customers are contacted and not the entire community. Customers are contacted either by a text message, email, or a phone call.

CONCLUSION

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 and its staff.

Respectfully submitted, this the 30th day of October 2019.

SANFORD LAW OFFICE, PLLC

Electronically Submitted

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

APPENDIX A
CWSNC RESPONSE TO CUSTOMER CONCERNS
RALEIGH PUBLIC HEARING - 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 Reports for Carolina Trace and Ashley Hills North are attached hereto as Exhibits 1 and 2, respectively.
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 Reports for 2018, the Company's testing for Iron reveals levels below the Maximum Contaminant Level ("MCL") of 0.3 parts per million ("ppm") for Carolina Trace and Ashley Hills North.
 - 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 ("DEQ"). 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. The Company continues to implement its annual flushing program.



Carolina Water Service
of North Carolina™

Carolina Trace Water System

PWS ID: **NC0353101**

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

Or Join us on Facebook and Twitter

@CarolinaWaterNC



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Go to 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 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.

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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.
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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.

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 to learn more about lead-containing plumbing fixtures.

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- 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.

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 treatment technique is 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 Carolina Trace 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
Cape Fear River - City of Sanford	Higher	08/31/2017

The complete SWAP Assessment report for Carolina Trace may be viewed on the Web at: 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. 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

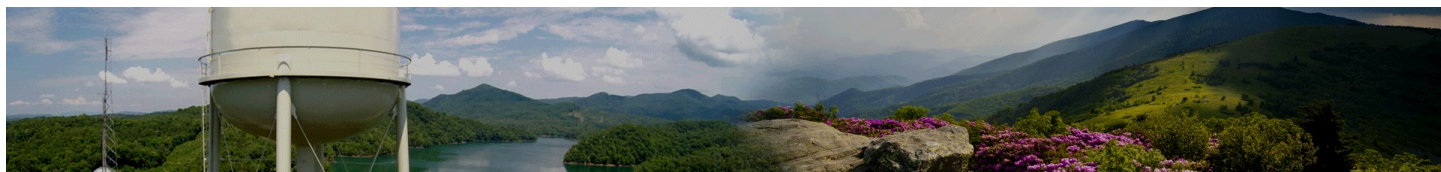
We routinely monitor for over 150 contaminants in your drinking water according to Federal and State laws. The tables below list all the drinking water contaminants that we detected in the last round of sampling for each particular contaminant group. The presence of contaminants does not necessarily 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.

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Water Quality Test Results - Carolina Water Service, Inc. of North Carolina

Contaminant (units)	Sample Date	MCL Violation Y/N	Your Water	Range Low High	MCLG	MCL	Likely Source of Contamination
Disinfectants and Disinfection Byproducts Contaminants							
Chloramines (ppm)	2018	N	1.87	1.1 - 2.6	MRDLG = 4	MRDL = 4	Water additive used to control microbes.
Chlorine (ppm)	2018	N	1.18	1.0 - 1.4	MRDLG = 4	MRDL = 4	Water additive used to control microbes.
Stage 2 Disinfection Byproduct Compliance - Based upon Locational Running Annual Average (LRAA)							
TTHM (ppb) B01	2018	N	73.6	56.1 - 73.6	N/A	80	Byproduct of drinking water disinfection.
TTHM (ppb) B02	2018	N	71.0	54.9 - 71.0	N/A	80	Byproduct of drinking water disinfection.
HAA5 (ppb) B01	2018	N	36.0	28.6 - 36.0	N/A	60	Byproduct of drinking water disinfection.
HAA5 (ppb) B02	2018	N	33.0	21.6 - 33.0	N/A	60	Byproduct of drinking water disinfection.
Lead and Copper Contaminants							
Contaminant (units)	Sample Date	Action Level Exceedance Y/N	Your Water	# of sites found above the AL	MCLG	MCL	Likely Source of Contamination
Copper (ppm) (90 th percentile)	June - Sept 2017	N	0.135	0	1.3	AL= 1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
Lead	June - Sept 2017	N	0	1	15	15	Corrosion of household plumbing systems; erosion of natural deposits.
<i>Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.</i>							
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.							



Water Quality Test Results 2018 - City of Sanford

Total Organic Carbon (TOC)

Contaminant (units)	Compliance Method	Your Water (RAA Removal Ratio)	MCLG	TT	Range Monthly Removal Ratio Low - High	TT Violation Y/N	Likely Source of Contamination
Total Organic Carbon (removal ratio) (TOC)- TREATED	Step 1	1.46	N/A	TT	0.88 – 1.46	No	Naturally present in the environment.

Depending on the TOC in the source water, the system MUST have a certain percent removal of TOC or must achieve alternative compliance criteria. If Sanford does not achieve that percent removal, there is an alternative percent removal. If Sanford fails to meet the alternative percent removal, they are in violation of a Treatment Technique.

Turbidity

Substance (Unit of Measure)	Year Sampled	MCL [MRDL]	MCLG [MRDLG]	Your Water	Range Low - High	Treatment Technique (TT) Violation if:	TT Violation (Y/N)	Typical Source
Turbidity (NTU) - Highest single turbidity measurement	2018	TT = 1	N/A	0.27	N/A	Turbidity > 1 NTU	No	Soil runoff
Turbidity (NTU) - Lowest monthly percentage (%) of samples meeting turbidity limits	2018	TT=95% of samples ≤0.3	N/A	100%	N/A	Less than 95% of monthly turbidity measurements are ≤ 0.3 NTU	No	Soil runoff

Turbidity is a measure of the cloudiness of the water. City of Sanford monitors it because it is a good indicator of the effectiveness of the filtration system. The turbidity rule requires that 95% or more of the monthly samples must be less than or equal to 0.3 NTU.

Inorganic

Substance (Unit of Measure)	Year Sampled	MCL [MRDL]	MCLG [MRDLG]	Amount Detected	Range Low - High	Violation	Typical Source
Fluoride (ppm)	2018	4	4	0.51	N/A	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.

Synthetic Organic Chemical (SOC) Contaminants Including Pesticides and Herbicides

Atrazine (ppb)	2018	3	3	0.36	N/A	No	Runoff from herbicide used on row crops.
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CRYPTOSPORIDIUM

The City of Sanford monitored for cryptosporidium in both the Cape Fear River and the plant reservoir during 2018. Monitoring detected a level of 0.091 oocysts per liter in the Cape Fear River during February. Cryptosporidium is a microbial pathogen found in surface water throughout the U.S. Although filtration removes Cryptosporidium, the most commonly-used filtration methods cannot guarantee 100 percent removal. Monitoring indicates the presence of these organisms in the source water. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Ingestion of cryptosporidium may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immune-compromised people, infants and small children, and the elderly are at greater risk of developing life threatening illness. We encourage immune-compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested to cause disease, and it may be spread through means other than drinking water.



Carolina Water Service
of North Carolina™

Ashley Hills North Water System

PWS ID: **NC0392341**

Annual Water Quality Report 2018

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

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County which draw water from a fractured bedrock aquifer.

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Oct 30 2019

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The relative susceptibility rating of each source for Ashley Hills/Covington Cross 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	Moderate	4/27/2017
Well #2	Moderate	4/27/2017
Well #3	Moderate	4/27/2017

The complete SWAP Assessment report for Ashley Hills/Covington Cross may be viewed on the Web at: 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:

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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

Contaminant (units)	Sample Date	MCL Violation Y/N	Your Water	Range Low High	MCLG	MCL	Likely Source of Contamination
Inorganic Contaminants							
Fluoride (ppm)	2018	N	0.26	ND - 0.26	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.

Nitrate/Nitrite Contaminants							
Nitrate (as Nitrogen) (ppm)	2018	N	4.0	1.39 - 4.0	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.

Volatile Organic Chemical (VOC) Contaminants							
Ethylbenzene (ppb)	2017/2018	N	0.45	ND - 1.0	700	700	Discharge from petroleum refineries.
Xylenes (Total) (ppm)	2017/2018	N	0.0034	ND - 0.0063	10	10	Discharge from petroleum factories; discharge from chemical factories.

Radiological Contaminants							
Alpha emitters (pCi/L)	2014/2018	N	12.06	ND - 47.65**	0	15	Erosion of natural deposits.
Combined radium (pCi/L)	2015/2018	Y	8.33*	ND - 28.9*	0	5	Erosion of natural deposits.
Uranium (pCi/L)	2014/2018	N	7.06	ND - 21.9**	0	20.1	Erosion of natural deposits.

*Combined Radium: Customers were notified when one of three wells serving the water system (well #3) exceeded the MCL due to the single high result of combined radium at 28.9 pCi/L from the sample collected on 4/25/2018. Quarterly monitoring was initiated to monitor the level and updates have been provided to the state regulatory agency. Should further monitoring show elevated levels of combined radium, the installation of radium removal treatment will be required and our customers will be updated on our progress. For more information please see the following standard health effects language: *Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer.*

**Alpha emitters and Uranium: Samples collected on 4/25/2018 showed results that exceeded the MCL. However, compliance is based on a four-quarter average; therefore, our system was not in violation for alpha emitters and uranium. Quarterly monitoring was initiated to monitor the levels and will continue as required. Our customers will be notified if the averages were to exceed the MCL. For more information please see the following standard health effects language: *Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer. Some people who drink water containing uranium in excess of the MCL over many years may have an increased risk of getting cancer and kidney toxicity.*

Disinfectants Contaminants							
Contaminant (units)	Year Sampled	MCL/MRDL Violation Y/N	Your Water (highest RAA)	Range Low High	MRDLG	MRDL	Likely Source of Contamination
Chlorine (ppm)	2018	N	1.13	0.9 - 1.4	4	4	Water additive used to control microbes.

Stage 2 Disinfection Byproduct Compliance - Based upon Locational Running Annual Average (LRAA)

Contaminant (units)		Year Sampled	MCL Violation Y/N	Your Water (highest LRAA)	Range Low High	MCLG	MCL	Likely Source of Contamination
TTHM (ppb)	B01	2018	N	3.9	N/A	N/A	80	Byproduct of drinking water disinfection.
HAA5 (ppb)	B01	2018	N	1.4	N/A	N/A	60	Byproduct of drinking water disinfection.

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 th percentile)	Sept 2015	1.32*	3 of 27 samples	1.3	AL= 1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.	

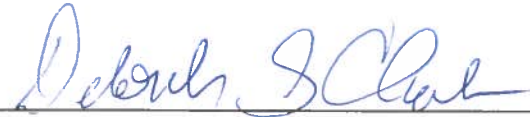
*The 90th percentile calculation for copper is considered to be below the Action Level as long as the level remains below 1.35 mg/l. Please see the following language from the US EPA: *Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.*

Violations: In 2018, Carolina Water Service, Inc. of North Carolina performed all required monitoring and reporting for contaminants. Please see the above section for the included combined radium violation for additional information.

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 HEARING HELD IN RALEIGH, NORTH CAROLINA, ON OCTOBER 14, 2019**, 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

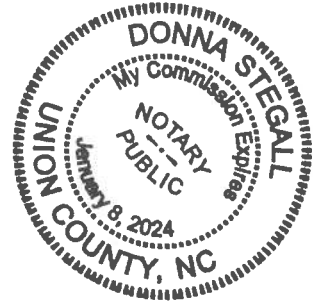
Sworn to and subscribed before me this
the 30 day of October 2019.



Notary Public

Donna Stegall

My Commission Expires: 01/08/2024



CERTIFICATE OF SERVICE

I hereby certify that on this the 30th day October 2019, a copy of the foregoing **REPORT ON CUSTOMER COMMENTS FROM PUBLIC HEARING HELD IN RALEIGH, NORTH CAROLINA, ON OCTOBER 14, 2019**, has been duly served upon all parties of record by electronic service, as follows:

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