

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

September 25, 2020

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

Via Electronic Filing

Re: Aqua North Carolina, Inc. - Application for General Rate Increase
Docket No. W-218, Sub 526
Proposed Order - Customer Concerns (Service, Communication,
Compliance) and Reporting

Dear Ms. Campbell:

Attached please find Aqua North Carolina, Inc.'s Proposed Order for the Customer Concerns and Reporting Issues portion in this case. In accordance with Commission rule, we will file a Word version with the Clerk.

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

Sincerely,

Electronically Submitted

/s/Jo Anne Sanford

State Bar No. 6831

Attorney for Aqua North Carolina, Inc.

c: Parties of Record

FINDINGS OF FACT (continued)

CUSTOMER CONCERNS – SERVICE, COMMUNICATION AND WATER QUALITY-RELATED ISSUES

Customer Concerns---General

77. Aqua’s service meets the statutory standard set forth in G.S. 62-131(b) which requires that “(e)very public utility shall furnish adequate, efficient and reasonable service.”

78. As of December 31, 2019, the date of filing of the Application in this docket, Aqua NC served approximately 300,000 North Carolinians, living in over 1200 subdivisions, with over 100,000 service connections (customers). Aqua NC owns and operates in excess of 700 water systems consisting of more than 1400 wells along with 59 wastewater treatment systems and 203 collection systems across 51 counties in North Carolina. These numbers reflect a significant operational responsibility to manage points of entry for water extraction across a wide range of hydrological circumstances, as well as a large number of wastewater treatment plants to manage, across a widespread territory.

79. A total of 24 customers testified at the two separate, “virtual” public hearings which were conducted via the Commission’s WebEx platform on August 3, 2020, for the purpose of receiving customer testimony.

80. The twenty-four customers who testified were from 21 subdivisions, located within 18 different systems¹ and 11 different counties. This is a subset of

¹ Three subdivisions and seven of the 24 customers are in the Bayleaf Master System.

a total of approximately 100,000 customers, from more than 1200 subdivisions, located within more than 700 systems, across 51 counties.

81. The customers addressed intermittently discolored water, sediment buildup related to iron and manganese concentrations in the water, damage to appliances, discoloration of household fixtures, intermittent aeration in the water, some issues with notice of flushing, and the existence of Total Trihalomethane (“TTHM”) exceedance in one system. Some customers testified that they do not drink the water supplied by Aqua NC systems and, instead, purchase bottled water for drinking and cooking.

82. Other specific concerns to which customers testified, which are not water-quality related, include the magnitude of the rate increase requested by Aqua NC and the flat-rate sewer methodology rate design. One customer alleged inadequacy of service of notice---submitting that she did not receive notice when sent either by United States Postal Service (“USPS”) Standard Pre-Sort Mail or when sent by USPS First Class Mail.

83. Pursuant to the Commission’s Rate Case Scheduling Order dated February 14, 2020,² Aqua filed its “Report on Customer Comments from Public Hearings Held on August 3, 2020” (“Aqua Report”) on August 24th. That Report was 93-pages long and was filed within 20 days of the public hearings. It addressed by way of follow up and reported the comments of all 24 customers, was documented with respect to investigation, remedy and conversation with

² As amended by Orders of March 31, 2020 and of June 29, 2020.

customers, was useful to the Commission and to customers, and reflected a vigorous, diligent response to the complaints. The Aqua Report addressed the issues that appeared to apply across systems, it discussed remedial efforts being taken at the system level and it spoke to customer-specific solutions, via phone calls, visits, and/or follow-up communications. The Aqua Report reflects an appropriate, assiduous response by the Company to the customer comments.

84. The Public Staff filed its Verified Response (“Public Staff Response”) to the Aqua Report on September 4, 2020. In it, the Public Staff alleged inadequacy and insufficiency in the responses to certain customers, without fully recognizing ongoing efforts by Aqua NC to work with those customers; mistakenly accused Aqua NC of having violated a Commission rule with respect to meter testing; and deemed the Company’s responses to costs, communication (with one exception), quality of purchased water supplies, and hardness to be adequate. With respect to part of the responses to four customers, the Staff contended that Aqua’s answers failed to address their questions.

85. On September 11, 2020, Aqua NC filed comprehensive Verified Reply Comments (“Aqua Reply”) which (a) refuted the Public Staff’s allegations of inadequacy and rule violation, and (b) provided extensive, specific detail on the Company’s ongoing process of investigation and customer interaction. The Company also submitted into the record most of the responses to Public Staff Data Request No. 138, which were relevant to much of the ongoing effort to support customers and which were in the Public Staff’s possession a week prior to the Staff filing its Response.

86. Aqua's Report and Reply explained that naturally-occurring iron and manganese are in the groundwater supply that is the source of water in many of the Aqua NC systems; that the level of iron and manganese in the Company's systems meets applicable regulatory standards; that the presence of iron and manganese in the water can cause water discoloration, problems with household appliances, and staining of fixtures and laundry; that the Company has employed various strategies to address the elevated levels of iron and manganese in its water systems (e.g., flushing³, chemical sequestration, and installation of various filters); and that Aqua NC works closely with the Public Staff and the North Carolina Department of Environmental Quality ("DEQ") to devise optimal plans to better address the problem of iron and manganese in the Company's water systems.

87. Aqua NC's responses to the customer concerns from the public hearings and to the Public Staff's comments were diligent, appropriate, complete, ongoing past the time of the first Report, and reflected the care and attention the Commission expects of a utility in addressing customer concerns, in or out of a rate case environment. Aqua's responses---although only one factor---support the Commission's conclusion of adequacy of overall service.

88. The Commission received approximately eighteen (18) written customer statements via electronic mail into the Chief Clerk's Office, primarily expressing opposition to Aqua NC's proposed rate increase and complaining of dissatisfaction with water quality and the Company's customer service. This

³ When flushing is done or suggested by the Company, customers receive a billing credit.

contrasts with the earlier Sub 497 case, wherein ninety-three (93) customer statements were filed with the Chief Clerk, between April 16, 2018, and November 15, 2018.

89. Though the customers' comments and the evidence, particularly with respect to secondary water quality issues, justify the continuation of efforts to address secondary water quality, Aqua NC's performance with respect to water quality and service has continued to improve.

Quality, Remediation Efforts, Environmental Compliance and Communication

90. DEQ secondary water quality standards address the acceptable levels of certain constituents, including iron and manganese, in drinking water. Secondary water quality standards serve as guidelines to operators of water systems on keeping these elements, which are not considered to pose health risks, at levels that consumers will not find objectionable for drinking or consuming due to taste, color, and odor effects.

91. While the DEQ secondary water quality standards serve as guidelines to assist water systems in managing water qualities such as taste, color, and odor, they do not purport to address the suitability or acceptability of water for uses other than drinking, cooking, and human ingestion. The Commission's longstanding position is that its concern pursuant to G.S. 62-43(a) for the quality of water supplied to customers goes beyond state and federal regulatory standards related to human ingestion. Separate and apart from health concerns, the degree or magnitude of water taste, color, and odor problems resulting from elevated

levels of iron and manganese, which for purposes of health-related issues are sometimes designated and considered “aesthetic” concerns, can significantly limit or adversely impact customers’ ability and willingness to use the water service for which they pay. Persistent water quality issues related to elevated concentrations of iron and manganese and customer service issues may also render the quality of service for some customers inadequate for non-consumptive purposes, such as cleaning, laundry, and use in appliances.

92. Though concerns persist, particularly in certain parts of Aqua NC’s service territory, about secondary water quality, including odor and staining attributes when the secondary elements exist at high levels in the water, the Company’s evidence is of significantly increased investment and operational attention to these issues. These efforts are responsive to Commission directive, they reflect additional investment and operational diligence, and---if continued---they should support continued improvement in water quality and service.

93. The overall quality of water service provided by Aqua NC is adequate on a company-wide and system-wide basis. The Company meets DEQ’s and EPA’s health-based primary quality standards.

94. Aqua NC’s receipt of and response to DEQ Notices of Violation (NOVs) for wastewater, in the 2018—2020 time period, reveal that the violations were a combination of software/filing deficiencies, residual impacts of Hurricane Florence, unauthorized chemical dumping by third parties, a change in permitting conditions that required nutrient removal of a wastewater treatment plant that was never designed to perform that function, and a sanitary sewer discharge due to an

electrical failure at a lift station. Aqua NC's responses to all were remedial, corrective, responsive, and included company-wide adjustments to avoid recurrences of some of the problems. One response, a collaborative effort with DEQ, was innovative, productive and commendable.

95. Operational compliance with environmental laws and regulation is essential to safe, adequate provision of customer service. Aqua NC's compliance level with respect to water systems---of which it has over 700---is at the 99.9% level. The Company also achieved a wastewater operations compliance level of approximately 97% in 2018/2019. This is significant in that the biological balance within small package wastewater treatment plants prevalent throughout the Aqua NC system can be more difficult to maintain.

96. The overall company-wide and system-wide quality of wastewater service provided by Aqua NC is adequate and the Company operates its wastewater treatment plants in a prudent manner.

97. Operational changes and capital improvements should continue as needed to support Aqua NC's success in improving the quality of water in systems affected with elevated levels of iron and manganese. Iron and manganese in groundwater can be remediated through flushing, either at the system level or at customers' residences, through chemical sequestration, and/or through filtration, installed either centrally or at customers' residences.

98. Aqua NC's Water Quality Plan, implemented in 2018 and supported by resources at the state level and from Essential Utilities, Inc., guides the

Company's targeted efforts to address secondary water quality issues by methods that are both "least-cost" and effective.

99. Significantly enabled by the use of the WSIC mechanism, Aqua NC has expended resources and continuously increased its commitment towards addressing a number of water quality and other issues that result from the presence of iron and manganese in the source water in its service territory. In the twenty-one months since the post-test-year ended in Aqua NC's Sub 497 rate case filing (June 30, 2018) through the post-test year date of March 31, 2020, the Company installed sixteen new iron and manganese ("Fe/Mn") filters along with thirteen cartridge filters at a cost of approximately \$5.8 million to help address secondary water quality issues in various systems.

100. Since 2015 and through the Sub 526 Rate Case Application date of December 31, 2019, Aqua NC installed 41 iron and manganese filters statewide at a cost of approximately \$15 million. Of the Company's remediation options, installation of greensand filters is the most expensive to implement but is, in the Company's opinion, the most effective in extracting iron and manganese from the water.

101. Aqua NC's level and quality of communication with its customers continues to increase and strengthen, as indicated by the testimony of its customers and by the Company's evidence of its internal improvements and its outreach to customers. Evidence of this is found in the development of the Bayleaf Advisory Group, in enhancements to the Company's website, the hiring of a dedicated staff member to facilitate the handling of discolored water quality calls,

and in deployment of the “Close the Loop” program to assure that an Aqua NC employee contacts every customer who calls with a complaint as a means of follow-up after the customer’s call or complaint has been addressed.

Regulatory Oversight and Compliance---Reporting

102. Ordering Paragraph No. 9 of the Sub 497 Rate Case Order required Aqua NC to continue to file bi-monthly reports addressing water quality concerns raised by customers at the public hearings in Docket No. W-218, Sub 363, in situations where the iron/manganese concerns remain, and in the Sub 497 proceeding, including but not limited to customers served within the Bayleaf Master System. These bi-monthly reports are no longer necessary or warranted.

103. Ordering Paragraph No. 10 of the Sub 497 Rate Case Order required the Public Staff and Aqua NC to continue to work together to develop and implement plans to identify and respond to secondary water quality concerns that occur in significant numbers in individual subdivision service areas and to jointly file semi-annual reports with the Commission. It is reasonable and appropriate to convert this semi-annual secondary water quality reporting requirement to an annual reporting requirement, as proposed by Aqua NC.

104. Ordering Paragraph No. 14 of the Sub 497 Rate Case Order required Aqua NC to continue to promptly provide to and share with the Public Staff information concerning all meetings and conversations (in summary note form) with reports to and the recommendations of DEQ regarding the water quality concerns being evaluated and addressed in Aqua NC’s systems. These

bi-monthly reports to the Public Staff are no longer necessary, warranted, or productive.

105. It is reasonable and appropriate to require Aqua NC to continue to file its annual Three-Year WSIC/SSIC Plan; its Quarterly Earnings, WSIC/SSIC Revenues, and Construction Status reports; its Annual Heater Acquisition Incentive Account Report; and the Company's DEQ Quarterly Notices of Deficiency.

106. Aqua NC and the Public Staff shall continue to work together regarding the development of appropriate recommendations and solutions to improve secondary water quality as impacted by the levels of iron and manganese at the Company's affected water systems.

EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NOS. 77 - 101

Service, Water Quality Environmental Compliance And Communications

The evidence supporting these findings of fact is contained in the testimony and/or exhibits of Aqua NC witnesses Becker and Berger, Public Staff witness Franklin, the Attorney General, the public witnesses, the Verified Reports filed by Aqua NC and the Public Staff in response to the concerns testified to by the public witnesses, the determinations made by the Commission in the Sub 497 Order concerning quality of service, various reports filed since the Order in the Sub 497 case, and the entire record in this proceeding.

Customer Concerns – Service and Water Quality-Related Issues

Two public hearings were held on the Commission’s WebEx platform on August 3, 2020, for the purpose of receiving the testimony of non-expert, public witnesses. Twenty-four customers testified, principally reciting the following concerns:

- opposition to the Company’s requested rate increase;
- complaints of discolored water and the ancillary impacts on laundry, appliances, and taste;
- objection to paying for flushing for disinfection purposes;
- complaints of insufficient assistance from the Call Center;
- concerns about communications, ranging from notice of flushing to information about the rate case; and
- objections to needing to install water filtration systems in their homes at added cost as a result of the quality of the water supplied to their homes.

Customer-Specific Concerns

[Note that each and every customer’s testimony and the follow-up by the Company was detailed by Aqua NC in its *Report On Customer Comments From Public Hearings Held On August 3, 2020* (“Aqua Report”). The Public Staff filed a *Response Of The Public Staff To Report On Customer Comments From Public Hearings By Aqua North Carolina, Inc.* (“Public Staff Response”) on September 4, 2020, and Aqua countered with its *Reply Comments Regarding The Response Of The Public Staff To Aqua’s Public Hearing Report* (“Aqua Reply”) on September 11th.]

Bayleaf Master System

Ms. Michelle Raymond, a new customer in a single person household in the Bayleaf Master system: expressed concern that her \$90/month charge for wastewater service was too high and failed to consider usage; asserts that her

toilet has rust colored stains; and complains that her sinks have a “white build-up.”

Aqua NC followed up by phone, personal visit, delivery of cleaning goods and gloves, testing, assistance with flushing, and a credit for the usage associated with flushing.

Ms. Becky Daniel, a resident of Coachman’s Trail subdivision served by Aqua NC’s Bayleaf Master System, testified through a combination of pre-submitted documents and on line at the hearing to very significant improvement in Aqua’s operational and communications performance since the Sub 497 rate case hearing. Her input is further supported by the work she voluntarily does in her community to communicate with Aqua NC and her neighbors. Ms. Daniel testified that the Company has made great improvements in customer service since her last testimony in 2018. She pointed to prompt and thorough responses to service issues by email, phone calls, and visits from technicians. She further cited the formation of the Bayleaf Advisory Group, which has met five times, as a measure of improvement, and described improvement in communication, including with the call centers. Overall, she submitted that “...reliability has improved with periodic issues, customer service has greatly improved in multiple areas, and Aqua seems engaged with the Bayleaf communities.” *Tr. Vol. 9, p. 49*. She enumerated the number of incidents of which she was aware over a 19-month period and provided meticulous documentation of the response by Aqua NC, which in virtually every instance was very prompt and thorough. Ms. Daniel supported continuation of reporting requirements with

respect to her system to ensure continued focus on improvement and she supported Aqua's proposal for a Pilot Program to attempt to address consumption.

Mr. Carey Camp of the Bayleaf Master System complained of hardness, discolored water, aerated water, and no fire hydrants. By personal contact, Aqua NC explained: that response to hard water was a matter for individual customer decision; that there were fire hydrants in his neighborhood; and that the aeration and water quality issues were a function of well performance, excessive demand, water line breaks or internal plumbing issues. Aqua NC's follow-up investigation determined that Mr. Camp's location at the end of a street increased mineral deposition. The Company flushed, installed pressure gauges to assess water pressure, and issued a flushing credit. Aqua also explained to Mr. Camp the addition of filtration on two wells and a project to clean and repaint one of the elevated storage tanks.

Ms. Sheeba Juma objected to the rate increase, indicated a preference for volumetric rates, spoke positively about Aqua's communications practices, and stated that her occasional experiences with milky water resolved in a matter of minutes.

Aqua's follow-up communication with Ms. Juma explained to her the differences in rates among providers, and Aqua NC's Report also addressed her general concerns about rates and communications.

Mr. Oliver Bacasse complained about water quality issues (hard water, build up, milky water, and iron deposits), a lack of synchronization in notice and flushing events, the Company's "refusal" to perform a meter test, damage to his

premises from pressure, and lack of attention to a well lot. Aqua NC responded that:

- Hard water is an issue for resolution by the individual customer, subject to the customer's preferences and willingness to purchase a water softener;
- The pressure reducing valve is the customer's responsibility, and they fail with age;
- The prior meter was removed as part of a meter replacement program, and Mr. Bacasse's request came after the removal. Further, his usage prior to removal and after installation of the replacement meter were consistent;
- There were no complaints about aeration from his area during the time in question, and Aqua NC was working on operational responses to aeration issues (which were likely related to capacity issues);
- Fallen trees were on the well lot as a result of recent storms and were not readily visible to Aqua NC. Other well lot issues were a result of trespassers on the lot; the Company is addressing both.

Mr. Eric Galamb was concerned that the water was eroding his granite counter tops. He supported a metered sewer rate and a 30% Base Facilities Charge for water, reflective of his interest in conservation. Follow up conversation by Aqua addressed care of granite, discussed rate design considerations, and included contact information for future communications.

Ms. Carroll Horrocks objected to the rate increase, preferred a volumetric rate, and complained of having to pay for a whole-house water softener. Aqua NC's follow-up included many of the same general explanations that were made in Aqua's Report of August 24th.

Non-Bayleaf Systems

Ms. Lora Alexander of Gastonia complained of milky, slimy water, of a black ring in her toilet, and of the expense of buying bottled water. Aqua NC persisted through phone calls and two on-site visits in investigating the situation, including taking samples from the outdoor spigot and in conversation with Mr. Alexander. The report on the August 10, 2020 water sample showed clear water, that all residuals were in satisfactory limits, and no evidence on that day of slimy or muddy water. The aeration evident in a bottle of water drawn by Mr. Alexander dissipated quickly. On August 12, 2020 Aqua called the Alexanders to discuss the results, and on August 23rd the Company returned to take another outside test, the results of which---all normal---were left on a door tag at the residence. Aqua NC has ordered an air release valve for installation at the home or on a main, in an effort to address aeration. Ms. Alexander's source well has a greensand filter which suffered damage in 2017; that event may have been the source of earlier aeration issues, and it was repaired.

Evan Brown of the Park South Station Subdivision complained of the rate increase, preferred a volumetric basis for billing, and expressed a preference for paying his bill by credit card. Aqua NC's response explained to him how he could use a credit card, that the rates were a pass-through from the City of Charlotte, and that the flushing was required as part of the service obligation to remove contaminants. He stated that the flushing was not an inconvenience; he only objected to the cost of it being borne by ratepayers.

Mr. Brad Phillips, of Olde Beau Subdivision in Alleghany County, objected to the rate increase, expressed a lack of knowledge of improvements in his subdivision, and contended that Aqua NC needs to do a better job of communication. Upon follow up by Aqua NC, he submitted that they had no complaints about water quality or service, but expressed concerns about a leak and about erosion of the street in front of the treatment facility. Aqua NC's response established that: the leak was likely an old one, which was resolved in 2017 by replacement of all four Pressure Relief Valves; the road repair was in the Company's budget; Aqua NC had invested nearly \$75,000 in capital improvements on the wastewater system and over \$219,000 in water improvements in the past two years; and that Aqua NC's State President had been in frequent conversation with representatives of customers in the system over the past several years.

Mr. Patrick Andrea, of Regency Village subdivision, reported: numerous line breaks; low pressure; cloudy water which sometimes tastes stale or overly chlorinated; water stains in tubs and toilets; "milky" looking water, from air, which clears eventually; multiple (three to four) boil water episodes; and no evidence of improvements in his neighborhood. Aqua NC's response was by personal contact and included explanations of all the issues, plus operational adjustments, test results, filtration, investment plans included in the five-year plan, and an immediate plan to do touch-up painting on the tank.

Mr. Dennis Kretziner expressed concern about rates and investment requirements. A follow-up phone call from Aqua's Director of Operations explained

the level of investment, including recent upgrades, and the rate-setting mechanism, including customer safeguards.

Mr. Dennis Gershowitz of Hampstead (Castle Bay Subdivision) objected to the rate increase and noted continued discontent about the responsibility for grinder pumps. Follow-up from Aqua NC focused on additional explanation about the Company's position with respect to the grinder pumps.

Mr. Michael Thompson of Emerald Woods Subdivision in Wake Forest complained of sediment in his lines and "blackish water," which he discussed with the North Carolina Division of Environmental Quality and determined to be excessive manganese. He also objected to imprecise notice of flushing. Though unable to reach Mr. Thompson for a follow-up call, Aqua has written him and is evaluating the use of a Harmsco filter on the system, in addition to the sequestration that is currently part of the process.

Mr. Husher Edmonds of the Farrington Subdivision in Fayetteville had no issues other than to request that rates be maintained at the present level. Aqua NC followed up to thank him and to leave contact information, should he ever need it.

Ms. Cindy Rosado, of the Mariner's Point Subdivision in Fayetteville, was confused by the customer notice, specifically as it related to the pilot program, and by the difference between proposed and temporary rates. Aqua NC State President Shannon Becker contacted her to discuss and explain these and other issues about which she was concerned, including rate entities, water pressure, and the distinction between the responsibilities and jurisdiction of the Fayetteville PWC and Aqua NC.

Mr. Eric Thornton of The Cape was concerned about the rate increase, and about historic water quality issues associated with Total Trihalomethanes ("TTHM's"). The Company contacted him to discuss the TTHM issue (involves a primary water quality standard) which is a chlorine disinfection by-product and can be indicative of saltwater intrusion into an aquifer. Aqua NC is concerned about the TTHM violations in this system and the Company drilled a new well (completion work is in process), is planning to install a manganese dioxide filtration system on an inactive well that has historical iron and manganese issues (under review by Public Staff), is pursuing new locations for future wells along the northern side of The Cape Master system and away from areas prone to salt water intrusion, and is exploring the use of a deeper aquifer (Pee Dee) as a viable alternative water source. Aqua NC also reviewed other measures to address emerging contaminants, as well as Mr. Thornton's level of consumption and the extent to which application of the rules of the proposed pilot program would impact his bill.

Ms. Kirsten Pavlich of the Chapel Ridge Subdivision complained of the water quality in the source water (purchased from Pittsboro), lacked confidence in billing records that showed two months of almost identical consumption, and objected to having to pay for a whole house filter. Aqua NC followed up to explain that the underlying cost of the water from Pittsboro is passed through to customers and verified the accuracy of her bill, as well as to discuss the bases for decisions to purchase filters. Ms. Pavlich was appreciative, and urged the Company to build trust by more communication.

Ms. Allison Squires of South Hills Subdivision in Garner objected to the rate increase, but had no service or water quality complaints. Aqua NC spoke to her afterward to discuss investment needs.

Mr. James McReynolds of Cottonfield Village Subdivision (part of Flowers Plantation) complained of the rates and of a chlorine taste. Aqua NC followed up to explain the purchased water pass-through concept and to advise that Johnston County applied chlorine for disinfectant purposes. Though no complaints were lodged against the sewer service, the Company took the opportunity to explain the level of its investment in the Neuse Colony wastewater treatment plant.

Mr. Charles Avery, Wrightsboro Subdivision, in Fayetteville, had no issues or complaints, but participated as an interested observer. Aqua NC contacted him afterward to provide information about how to cost-effectively disconnect service if there were extended periods of lack of use and should he desire to do so.

Mr. Albert Meyers, Timberline Subdivision in Henrico, testified in praise of Aqua NC's professional support and good service, noting the relationship between quality of service and the appreciation in the value of property in his area. Aqua NC attempted a follow up, but was unable to leave a message.

Ms. Lachia Moreland of Myatt Mill Subdivision in Willow Springs, expressed concern about rates and about a discoloration on her shower-heads. Aqua NC personnel followed up with her extensively regarding rate setting, the installation of a manganese dioxide filter on the well serving her subdivision, treatment of stains such as the one she described, and with the results of testing done on her water (all showing results that were either low or non-detect).

Ms. Wendy Stevens, of Stagecoach Subdivision in Raleigh, complained about rates, a bleach smell in her water, her lack of understanding as to why her deposit was returned, the level of the Base Facilities Charge, the requirement of purchasing water filtration as well as bottled water, and her failure to receive any notice of either sets of scheduled public hearings (whether the notice was sent by USPS Standard Pre-Sort or by USPS First Class Mail). Aqua NC took the following steps: contacted her to arrange a time to flush her service lines and internal plumbing; issued a flushing credit; verified that the chlorine dosing was being done at the appropriate level; and verified her name, mailing address and phone number---all of which were consistent with those in the Aqua NC system. Internal investigation by Aqua NC concerning the process and specifics of mailing notices to Ms. Stevens found no issue on the Company end; her failure to receive notices cannot be explained by evidence in the record; and the evidence supports Aqua NC's position that the notices were both mailed to the correct address and were not returned to the Company as undeliverable.

Quality, Remediation Efforts, Environmental Compliance and Communications

Quality and Remediation

As demonstrated by Becker Direct Exhibit 3, which was filed on December 31, 2019, Aqua NC's annual spend has ranged from \$14 million in 2013 to a projected high of nearly \$39 million through the end of 2019. The Company has invested heavily in infrastructure necessary to meet service and regulatory compliance standards within its nearly one thousand water and wastewater

treatment, distribution, and collection systems across the state. Aqua NC has strengthened its focus on water quality improvement through its operation of the Company's Water Quality Plan as described by witness Berger, which has required significant investment in filtration and water treatment to address naturally-occurring components of groundwater, in efforts to improve service.

Witness Berger testified that, since 2015 and through the Sub 526 Rate Case Application date of December 31, 2019, Aqua NC has installed forty-one (41) manganese dioxide filters for a total capital investment spend of just under \$15 million. The average removal rate by the manganese dioxide filters is 99.97% for iron removal and 99.95% for removal of manganese. In 2020, Aqua plans to install an additional eight (8) filters at Group 1 locations⁴ with a capital expenditure of approximately \$2.7 million, according to witness Berger, who testified that work remains to be done, but that water quality has improved and both DEQ NODs and customer complaints have been reduced. The Water Quality Plan initiated in 2018 identified 92 wells as Group 1 locations.

Witness Berger testified that currently Aqua has 67 Entry Points statewide that are listed as Group 1 (Fe + Mn > 1.0 mg/L or Mn > 0.3 mg/L). Of those:

- Three (3) have filters scheduled to be installed in 2020
- Three (3) have filters currently in engineering design
- Eight (8) are awaiting Public Staff concurrence and support
- Two (2) are in draft Executive Summary form for future submittal to the Public Staff for review

⁴ The highest priority for filtration.

- Fifteen (15) are offline and are not providing water to the systems
- Twelve (12) have alternative treatment or other sources of supply
- The remaining 23 are all undergoing prudency evaluation for future Executive Summaries and consideration for manganese dioxide filtration
- Thirteen (13) filters have been installed since 2018 (inception of Secondary Water Quality Program) on sites identified as Group 1 (Fe + Mn > 1.0 mg/L: Mn > 0.3 mg/L)

Company witness Becker testified that in the eighteen months since the post-test-year ended in Aqua's last rate case filing (June 30, 2018), Aqua has installed twelve new iron and manganese ("Fe/Mn") filters along with thirteen cartridge filters at a cost of nearly \$4.6 million to help address secondary water quality issues in various systems.

Aqua NC witness Berger addressed water and wastewater compliance for the Company, focusing on the Company's Water Quality Plan, including secondary water quality and emerging contaminants. She updated Dr. Christopher Crockett's discussion from the Company's last rate case which addressed Aqua NC's Water Quality Plan and the Company's goal to prioritize infrastructure improvements necessary to address secondary water quality issues. Aqua NC utilizes a combination of increased capital and operational process improvement to address secondary water quality issues within the Company's Water Quality Plan. The Company's Plan identifies capital and process needs to address each system's water quality issues and establishes a prioritization methodology. Examples of capital and process improvement needs include (but are not limited to) treatment options or filtration along with tank cleaning. This Plan works to develop a common

framework to address secondary water quality issues with support from the North Carolina Department of Environmental Quality, thereby collaboratively engaging regulatory stakeholders.

Witness Berger explained that Aqua NC's continued collaboration with the Public Staff on the development and submission of "Executive Summaries" is an important part of the process for evaluation and recovery through the Water System Improvement Charge ("WSIC") of installation of secondary water quality treatment filters. The Public Staff and Aqua NC collaborate on a rigorous review of these requests. The Executive Summaries are voluminous documents that include detailed data requests from the Public Staff and are the subject of meetings between the parties for purposes of review.

Finally, witness Berger testified that customer complaints, as measured by the quantity of Lab D (Discolored Water) and Lab A (Aerated Water) work orders that are issued when a customer calls (during business and after hours) regarding a discolored water complaint, have declined over the past several years. Data gathered on these water quality work orders between 2017 – 2019 demonstrates a 24.5% decline statewide, in 2019, from 2017 numbers. Additionally, the water quality work orders related to the Bayleaf master system decreased by 49% over this same period of time and Aqua NC projects a 76% decline in that system from 2017 to 2020. (See Berger Revised Rebuttal Exhibit 3)

Witness Berger further testified that Aqua NC has upgraded its operational efforts to address secondary water quality issues by the addition of a dedicated staff member to facilitate the handling of discolored water calls captured via the

issuance of Lab D Work Orders, resulting in a decline in those work orders. Lab D Work Orders are now assigned to the Technical Services Specialist, who is the liaison between the customer and operations Field Service Representative.

Environmental Compliance---Water

The significant 2016 change in DEQ standards concerning iron and manganese produced a profusion of Notices of Deficiency (“NODs”) triggered by exceeding secondary limitations for iron and manganese.

In February of 2016, DEQ began issuing NODs for exceeding sMCLs (secondary Maximum Containment Levels) for iron (“Fe”) and manganese (“Mn”) in the Raleigh region. These NODs were categorized in three tiers:

- Tier 1 NODs: Fe + Mn > 1 mg/L and no treatment (8 NODs received)
- Tier 2 NODs: Fe or Mn > their respective sMCLs and no treatment (13 NODs received)
- Tier 3 NODs: Fe + Mn > 1 and sequestration (47 NODs received)

Aqua received a total of 68 NODs for all three of these tiers. Prior to February 2016, Aqua had only received NODs for exceeding sMCLs for iron and manganese five times since 2011.

Witness Berger testified on rebuttal to success in achieving DEQ rescission of fifty-five (55) of the sixty-eight (68) NODs issued in 2016, for a reduction of 81%. Tr. Vol. 8, p. 134, l. 13-19. Aqua NC’s performance in reducing the levels of iron and manganese was commended in writing by the former Raleigh Regional Supervisor, DEQ.

Environmental Compliance---Wastewater.

In 2018, eleven individual Aqua systems received 36 NOVs. Twenty-four of the NOVs were for Neuse Colony, and were a function of monitoring reporting frequency violations. The permit was issued late in the compliance period, included changes in its terms from the draft, and was issued at about the time of Hurricane Florence. Aqua NC confirmed that the operator overlooked the permit and essentially missed some sampling during that period of time. Since then, the Company has instituted Quality Control checks that jointly involved Operations and Compliance to prevent future recurrence of a similar circumstance. The errors were Aqua NC's; however, there was no environmental impact of the violations. Further, witness Berger testified that the Quality Control measures implemented helped formalize the permit receipt and implementation schedule.

In 2019, twenty-eight (28) individual systems were issued a total of 66 NOVs. Twelve were paperwork errors, caused by the software that Aqua NC utilized to generate Discharge Monitoring Reports. Aqua NC corrected the error and resubmitted the reports; however, the violation stands. Thirty-two of the violations were associated with the Neuse Colony wastewater treatment plant. In this January - April 2019 time period, the plant was at capacity and Aqua NC had difficulty maintaining the biology, which is essentially the treatment process, while working to complete the Johnston County interconnect. Since completion of this interconnect in April of 2019, the Company has been in compliance at Neuse Colony.

Witness Berger also described the unique environmental issues associated with Wildwood Green. A permit was issued in early-2018 that assigned not only the lower Neuse River Basin nutrient loading, but also Falls Lake. The plant was never designed for nutrient removal, and thus it was very difficult to meet permit limits. Aqua and DEQ, cooperated on a pilot project to make some minor alterations to the treatment systems, which accomplished some nutrient removal, and they collaborated on a bubble permit, which essentially combined the nutrient limit for both Hawthorne and Wildwood Green since they are within the same basin. This avoided the expense of upgrading the facility. The eleven (11) NOV's that were issued in January, 2019, were essentially rescinded by DEQ because of the new permit.

The three violations in early 2020 for Olde Beau were a result of unauthorized chemical dumping by a third-party into Aqua NC's plant, thus impacting the biological activity.

Finally, Aqua NC addressed an NOV for a sanitary sewer overflow in Chapel Ridge, which was due to an electrical malfunction at a lift station. Aqua NC is contesting the NOV and the related civil penalty, which was issued in early 2020. The grounds for rescission are: this could not have been prevented; Aqua NC took immediate remedial action; and the Company made upgrades at its other facilities to ensure that the failure could not be replicated.

Communications

Witness Berger testified that, to further focus on communications with its customers, especially as it relates to better communications about water quality

issues, Aqua NC developed a Communications Plan and, in February 2018, implemented what it calls a “Close the Loop” program to ensure that an Aqua NC employee contacts every customer who calls with a complaint as a means of follow-up after the customer’s call or complaint has been addressed.

Witness Berger testified that Aqua NC’s Communications Plan improves its ability to effectively convey to customers news of its water quality remediation efforts, timing, and education. The February 2018, roll-out of a project website for customers to learn more about the program and Aqua NC’s actions (www.ncwaterquality.com) deployed a useful resource. The website combines with other modes of communication to allow the Company to share ongoing updates about progress. It is actively utilized and regularly updated to provide a status of current capital filtration projects being considered and includes copies of letters sent to communities identifying water quality improvement projects completed in those communities. Additionally, Aqua NC utilized this site to better inform Bayleaf customers of the flushing schedule for the Bayleaf System. In addition to calling, emailing, or texting customers, the use of an updated weekly schedule on the website has resulted in positive feedback from customers and a significant decline in Lab D work orders related to flushing activities received during this time, compared to previous years.

Witness Berger also testified that the website is useful for communicating with customers about Aqua NC’s Water Quality Plan, which is a guide for the Company’s efforts to improve secondary water quality throughout its systems, in a systematic way, ordered by priority or urgency, and balanced in cost by careful

consideration of the “least cost/most effective” mode of treatment. The site explains that all systems will be monitored on an ongoing basis to help ensure safety and overall quality of the water source. It further explains that Aqua NC also employs an aggressive water quality operation plan to help make sure water consistently flows clear.

Regarding communication and outreach, witness Berger testified that in May of 2019, Aqua NC established the Bayleaf Advisory Group for its largest and most complex public water system. The group is comprised of Aqua NC staff and nine Bayleaf customers. To date, Aqua has held five meetings and discussed various topics from water quality, operations, flushing efforts, educational materials, and other items. The feedback from customers has been utilized to update processes and improve communications. Testimony from Bayleaf customer, Ms. Becky Daniel, confirmed Aqua NC’s improved performance in Bayleaf, including reference to the Advisory Group and to generally improved responses.

Aqua NC responded at great length with an intense focus on water quality, adopted and implemented a Water Quality Communications Plan, kept the Commission and Public Staff informed via an exceptional number of reports and filings, and insisted on performing testing of water adequate to meet its view of the needs---even in the face of under-recovery of those testing costs.

**EVIDENCE AND CONCLUSIONS CONCERNING FINDINGS OF FACT
NUMBERS 102 - 106**

**REGULATORY OVERSIGHT AND COMPLIANCE – REPORTING
REQUIREMENTS**

**Summary of Direct Testimony of Aqua Witnesses Shannon V. Becker and
Amanda Berger Regarding Ongoing Reporting Requirements**

During his direct testimony, Aqua President Shannon V. Becker testified regarding issues related to the Company's water quality, customer service, and communications. At pages 18 – 26 of his prefiled testimony, witness Becker set forth an extensive discussion and listing of the reporting requirements which are currently in place for the Company.

Witness Becker testified that some of the reports are no longer relevant, because the underlying issues either have been resolved, or are well on the way to management and improvement; and that the costs of preparation of some of these reports are significant to the Company and require operator and central management employees' time in addition to the legal assistance associated with filing. Witness Becker stated that, in addition to the time spent researching and drafting the ongoing bi-monthly, quarterly, semi-annual, and annual reports that existed prior to the last rate case, Aqua informally tracked internal time spent on the new reporting requirements ("New Reports") ordered in the W-218, Sub 497 case, noting that 588 hours were spent meeting these requirements between January and October of 2019.

Witness Becker further testified that additional costs are generated by the Public Staff's utilization of staff in the various disciplines---particularly in Legal and

Engineering---to jointly work on and/or review the reports with great care and in detail. The witness noted that Aqua fully supports the generation of reports that are relevant and useful to the Commission's oversight, and would willingly participate in conversations designed to assess whether the current reporting requirements should be revised.

Amanda Berger, Aqua's Director of Environmental Compliance, offered detailed direct testimony which addressed the Company's water and wastewater compliance record, with a focus on Aqua's Water Quality Plan. Witness Berger testified that since 2015, Aqua NC has installed forty-one (41) manganese dioxide filters for a total spend of just under \$15 million. The average removal rate of iron and manganese by the manganese dioxide filters is 99.97% for iron removal and 99.95% for removal of manganese. (See Berger Exhibit C). In 2020, Aqua NC plans to install an additional eight (8) filters at Group 1 locations with a capital expenditure of approximately \$2.7 million. Witness Berger provided details which supported her testimony that "While there is still work to be done, water quality has improved and both NODs (DEQ Notices of Deficiency) and customer complaints have been reduced." (Berger Prefiled Direct Testimony at page 14 of 22). The witness also described the impacts of Aqua NC's Customer Communications Plan and additional actions taken by the Company to educate and communicate with its customers.

Summary of Public Staff Witness D. Michael Franklin Regarding Ongoing
Reporting Requirements

Public Staff witness D. Michael Franklin recommended that the Commission order the Company to continue to file written reports semi-annually. If a particular secondary water quality concern has affected or is affecting 10 percent of the customers in an individual subdivision service area or 25 billing customers, whichever is less, the customers affected and the estimated expenditures necessary to eliminate the secondary water quality issues through the use of projects eligible for recovery through the WSIC should be detailed in the written report.

Witness Franklin testified that the current threshold of 10 percent or 25 billing customers is appropriate and reasonable because it ensures secondary water quality concerns affecting both large and small utility systems are properly identified. He stated that the semiannual reporting frequency is also appropriate and reasonable because it provides sufficient time for data collection and the timely development of corrective actions to address any issues identified.

Furthermore, witness Franklin recommended that the Commission order Aqua to continue to convey to the Public Staff, in a timely manner, conversations with, reports to, and the recommendations of DEQ regarding the water quality concerns being evaluated and addressed in Aqua's systems. He recommended that such communications continue to be provided in written format on a bi-monthly basis, at a minimum. Witness Franklin also recommended that Aqua be required to provide the Public Staff with copies of the following: (1) Aqua's reports and

letters to DEQ concerning water quality concerns in its systems; (2) responses from DEQ concerning reports, letters, or other verbal or written communications received from Aqua; and (3) DEQ's specific recommendations to Aqua, by system, concerning each of the water quality concerns being evaluated by DEQ.

Witness Franklin stated that, functionally, his recommendations would be a continuation of the Commission's Ordering Paragraphs 10 and 14 of the Commission's Order Approving Partial Settlement Agreement and Stipulation, Granting Partial Rate Increase, and Requiring Customer Notice issued on December 18, 2018, in Docket No. W-218, Sub 497.

Witness Franklin also testified that, while Aqua has made improvements in some communities since the Final Order in the Sub 497 rate case was issued in December of 2018, he did not believe that sufficient time has passed to determine whether there has been consistent improvement in water quality across all of Aqua's water utility systems. He stated that the bi-monthly reporting frequency is appropriate and reasonable as it provides sufficient time for the collection of the required reporting information and timely sharing of that information with the Public Staff.

During cross-examination by Aqua's counsel, witness Franklin was asked whether it is still the Public Staff's position that verbal communications between Aqua and DEQ pertaining to the matters that were covered in Ordering Paragraph No. 14 in the Sub 497 rate case must be reduced to writing and shared with the Staff. Witness Franklin replied as follows:

Recognizing -- recognizing that reporting of verbal communications between Aqua and DEQ is more burdensome than the reporting requirements -- than other reporting requirements, the Public Staff does not want to suppress communications between Aqua and DEQ, as Mr. Becker pointed out in his testimony from last week, so the Public Staff is willing to forego this reporting, with the understanding that written communications will continue and be provided to the Public Staff. However, what we don't want to happen is that for the next rate case we get neither -- or during the -- between now and the next rate case we get neither verbal or written communications from DEQ. (Tr. Vol. 8, pages 102 -103)

Regarding the reporting requirement contained in Ordering Paragraph No. 14 of the Sub 497 Rate Case Order, witness Franklin also testified on redirect that the Public Staff views subparagraphs (a), (b), and (c) of Ordering Paragraph No. 14 to be specifically related to all primary and secondary water quality issues, while subparagraph (d) is restricted to secondary water quality concerns.

When asked by Presiding Commissioner Brown-Bland why the Public Staff thinks that semi-annual reports are necessary as opposed to annual reporting, witness Franklin replied as follows:

Because we just believe the annual time frame is too long and it doesn't allow enough time for the Public Staff to reach out while the information is still fresh to customers within those -- that are served by Aqua. Because if something occurs in January and they file in March of the following year, that -- and then that's the first time the Public Staff gets to review that information, so much time has passed that we don't believe it would be fresh in the customer's mind, and it will also give the customer possibly the perception that their concern isn't important to the Public Staff, and so those are the primary reasons why we think annual is too long and it should continue to be semiannually. (Tr. Vol. 8, pages 112 – 113)

**Summary of Aqua Witness Amanda Berger's Rebuttal Testimony
Regarding Ongoing Reporting Requirements**

Aqua witness Berger testified on rebuttal that the Company recognizes that some level of reporting to the Commission on secondary water quality concerns may be desired and warranted. If so, in lieu of the current bi-monthly and semi-annual reporting, witness Berger recommended that the Commission establish an Annual Secondary Water Quality Report to be filed by March 31st of each year and that the annual report should provide an accounting of the progress made in the previous calendar year. The Company proposes to include the following data in its Annual Secondary Water Quality Report:

- A summary of systems to include secondary water quality concerns that have affected 10 percent of the customers in an individual subdivision area or 25 billing customers in an individual service area, whichever is less, in a semi-annual period.
- A secondary water quality data update on the number of entry points that have consistent water quality results greater than Group 1 (Fe + Mn > 1.0 mg/L or Mn > 0.3 mg/L) and status of each system.
- A secondary water quality project update that provides:
 - o Number of Manganese Dioxide filters installed in the previous calendar year;
 - o Number of Manganese Dioxide filters scheduled for the reporting year; and
 - o Executive Summary Update and status on filter project concurrence by Public Staff, to include an estimate of the Company's plans to submit executive summaries requesting filtration in the reporting year.

Witness Berger testified that her recommendations align with other environmental regulatory reports and provide relevant information that can assist the Commission and Aqua's customers in assessing the Company's progress

toward correcting secondary water quality concerns. Further, witness Berger recommended that the Commission not require the Company to continue to provide NCDEQ communications either for secondary water quality or primary water quality concerns beyond the Company's NOD responses. She stated that Aqua does not have a poor compliance track record with its environmental regulators and asserted that the Public Staff did not present adequate justification in support of its proposal for a continued (and further expanded) reporting requirement.

With respect to the Public Staff's interpretation as set forth by witness Franklin in his testimony that Ordering Paragraph No. 14 of the Sub 497 Rate Case Order requires the Company to provide communications regarding all water quality concerns (primary and secondary) in Aqua NC systems, witness Berger noted that Finding of Fact No. 34 in that Order focuses on secondary water quality standards, which has been the focal point of customer complaints in prior rate cases. Aqua NC interprets the Sub 497 Order to require the Company to report only on issues attributable to secondary water quality. The Commission agrees with witness Berger on that point.

Aqua witness Berger testified as follows with respect to the Public Staff's contention that the Company should be required to report on primary water quality issues:

I questioned this reporting requirement as I regularly review and monitor data from the United States Environmental Protection Agency ("USEPA") regarding drinking water system compliance. USEPA statistics for the past three (3) years indicate that 33% of Public Water Systems ("PWS") in United States and 38% of Public Water Systems in North Carolina were

non-compliant for **primary drinking water** standards between 2017 and 2020. Aqua's non-compliance record over that time period was 0.7% over the 3-year period for all primary drinking water violations. (See Berger Rebuttal Exhibit 1). Therefore, I question the reporting requirement because Aqua has a historically strong compliance record on primary water quality concerns. Aqua is concerned that the Public Staff's reporting expectations and recommendations have become punitive versus productive given that the Company's primary drinking water compliance record is historically very good when compared across North Carolina systems and other similarly sized and regulated systems. The reporting requirements are extensive and expensive, and Aqua requests the Commission to carefully review the question of whether they are, as constituted, productive of information that is necessary to sound regulatory review, or whether they are unproductively excessive and can be modified or eliminated. (Berger Prefiled Testimony at pages 12 – 13; Tr. Vol. 8, pages 131 -132; Emphasis in Original)

Witness Berger also testified that secondary water quality issues are not an Aqua-only issue. Iron and manganese are found in amounts greater than the sMCLs (Fe> 0.3 mg/L, Mn>0.05 mg/L) in groundwater throughout the state. (See Berger Rebuttal 2 Exhibit 5). Despite Aqua NC's significant demonstrated improvement to address water quality issues through investment in filtration and operational attention, the resultant decline in water quality complaints, and its leading compliance record for primary contaminants, the Public Staff continues to recommend heightened reporting requirements. These reporting requirements for Aqua NC come at the cost of the Company staff's time and energy that could be re-allocated toward maintaining the historically good compliance record on primary drinking water standards and continuing significant improvement with regard to secondary water quality standards.

In response to cross-examination by the Public Staff as to why reporting on both primary and secondary water quality issues would be burdensome to the Company, Aqua witness Berger testified as follows:

I think this is where the dispute lies, is in the definition of water quality concerns. I think that in order to -- I think there needs to be a definition behind what the intention is behind water quality concerns. And I state that because we do operate over 700 public water systems in North Carolina, and our job is water quality. So if the Public Staff were to take a broad definition of water quality concerns to imply most any type of communication that we have with DEQ, then yes, that is extremely burdensome. I can't even begin to imagine the level of detail that would require because we converse and collaborate with our regulatory agency on a daily basis throughout the Company. We have over 200 water inspections each year to which there's reports, various different recommendations, et cetera, multiple changes in sampling schedule that, once again, could be construed to mean water quality. So when there is a broad definition placed upon water quality concerns where it can reach beyond just environmental compliance, yes, I think that that is -- that would be a huge burden upon the Company to try to maintain that information and provide to Public Staff. (Tr. Vol. 8, pages 148 – 149)

On redirect, witness Berger testified as follows regarding her reporting recommendations and testimony:

So it's not -- this recommendation is not made to reduce transparency and the ability to collaborate with Public Staff and address customer concerns. It's actually the opposite. I made this recommendation so that way we spend less time, you know, compiling reports because this is time intensive. It may not appear as such, but it is exceptionally time intensive to compile, review, analyze these reports. I personally would prefer to utilize that time to collaborate with Public Staff on Executive Summary submissions or secondary water quality concerns or replying to emails regarding a customer complaint that they have. That was the intent behind this recommendation. It's not to reduce transparency. I completely understand that there is a need to continue to report. I felt that this was an appropriate time, given the metrics that I've presented, to make this recommendation, so that way we can take this time and effort that goes towards reporting to continue to improve water quality for our customers. (Tr. Vol. 8, page 159)

Presiding Commissioner Brown-Bland asking witness Berger what language she could suggest if the Commission's goal is to learn of and be notified about water quality concerns that are intensely and persistently brought up to the Commission in the context of the general rate case. Witness Berger suggested that provision of primary and secondary Notices of Violation and of Deficiency would meet the Commission's needs.

Commission Conclusions Regarding Ongoing Reporting Requirements

Based upon a careful consideration of the entire record in this proceeding, the Commission reaches the following conclusions regarding ongoing reporting requirements to be imposed on Aqua NC:

1. It is no longer necessary for the Commission to require Aqua NC to continue to file bi-monthly reports addressing water quality concerns raised by customers at the public hearings in this docket. The Commission finds good cause to rescind this reporting requirement, which was most recently set forth in Ordering Paragraph No. 9 of the Sub 497 Rate Case Order.

2. The Commission finds good cause to revise the semi-annual secondary water quality reporting requirement, as most recently set forth in Ordering Paragraph No. 10 of the Sub 497 Rate Case Order, to be an ongoing annual reporting requirement as proposed by Aqua NC.

3. It is no longer necessary or productive for the Commission to require Aqua NC to continue to provide the Public Staff with information concerning all meetings and conversations (in summary note form) with reports to, and the

recommendations of DEQ regarding the water quality concerns being evaluated and addressed in Aqua NC's systems. The Commission finds good cause to rescind his reporting requirement, which was most recently set forth in Ordering Paragraph No. 14 of the Sub 497 Rate Case Order.

4. The Commission finds good cause to require Aqua NC to continue to file its annual Three-Year WSIC and SSIC Plan; its Quarterly Earnings, WSIC/SSIC Revenues, and Construction Status reports; its Annual Heater Acquisition Incentive Account Report; and the Company's DEQ Quarterly Notices of Deficiency.

5. The Commission finds good cause to require Aqua NC and the Public Staff to continue to work together regarding the development of appropriate recommendations and solutions to improve secondary water quality as impacted by the levels of iron and manganese at the Company's affected water systems.

Discussion of the Evidence Supporting the Commission's Findings of Fact and
Conclusions Regarding Ongoing Reporting Requirements
to be Imposed on Aqua NC

The testimony and exhibits offered in this proceeding by Company witnesses Becker and Berger fully support and justify the findings of fact and conclusions reached by the Commission regarding the ongoing reporting requirements to be imposed on Aqua NC for the following reasons:

First, there is no credible evidence in the record of this case that Aqua NC experiences significant or pervasive primary water quality issues that require

additional reporting from the Company. Only one customer⁵ (out of 24) offered testimony at the hearing which raised primary water quality concerns. Public Staff witness Franklin testified as follows (at page 15 of his prefiled testimony):

Based on my investigation, I have determined that Aqua's water utility systems are generally in compliance with federal and state regulations, testing requirements, and primary water quality standards. Where problems have been identified, Aqua has generally corrected the problems or is actively working toward solutions. However, the Company continues to contend with some water quality issues. For example, Aqua witness Berger states in her direct testimony, "Of Aqua's 1,285 entry points in this state, approximately 75 draw from groundwater that is considered Group 1 (Fe + Mn > 1 or Mn > 0.3 mg/L) with appreciable amounts of iron and manganese and currently do not have filtration."⁶ Aqua should continue its efforts to optimize operations and maintenance and, where necessary, make reasonable and prudent capital investments to replace, renovate, upgrade, or install treatment systems. (Emphasis Added)

The Commission agrees with Aqua NC witness Berger and the evidence of record which clearly indicates that the Company has a historically strong compliance record on primary water quality concerns and that the Company's primary drinking water compliance record is also historically very good when compared across North Carolina systems and other similarly sized and regulated water systems.⁷ The Public Staff has cited no primary water quality violations or

⁵ The customer is Eric Thornton. He complained about receiving notices about the presence of Total Trihalomethanes ("TTHMs") in the water provided by Aqua NC at The Cape master system. Actions taken by Aqua NC, along with increased monitoring and operational changes, have resulted in The Cape master system returning to compliance in the second quarter of 2020.

⁶ Page 11, lines 16-19, Direct Testimony of Company witness Amanda Berger filed in Docket No. W-218, Sub 526, on December 31, 2019. [This footnote was contained in witness Franklin's prefiled testimony.]

⁷ Aqua NC witness Berger cited data from the United States Environmental Protection Agency regarding drinking water system compliance. USEPA statistics for the past three (3) years indicate that 33% of Public Water Systems in the United States and 38% of Public Water

problems, significant in number, which convince the Commission that a specific reporting requirement is necessary.⁸ In fact, witness Franklin testified that (a) Aqua NC 's water utility systems are generally in compliance with federal and state regulations, testing requirements, and primary water quality standards and (b) where problems have been identified, the Company has generally corrected the problems or is actively working toward solutions.

Accordingly, based on the testimony offered in this proceeding by Aqua NC witness Berger, the Customer Report filed by the Company on August 24, 2020, and the testimony of Public Staff witness Franklin, the Commission concludes that Aqua NC does not experiences significant or pervasive primary water quality issues that require specific reporting from the Company.

Second, Aqua NC continues to demonstrate clear improvement in its ability to correct and mitigate secondary water quality issues related in particular to elevated levels of iron and/or magnesium in the Company's well water. The testimony and exhibits offered by Company witnesses Becker and Berger clearly illustrate that proactive efforts have demonstrated clear improvement, while recognizing that more remains to be done. For instance, witness Berger credibly testified on rebuttal that the Company has made great strides in the past several

Systems in North Carolina were non-compliant for primary drinking water standards between 2017 and 2020. Aqua's non-compliance record over that time period was 0.7% for all primary drinking water violations. (See Berger Rebuttal Exhibit 1).

⁸ Public Staff witness Franklin discussed problems with disinfection byproducts at The Cape master water system at page 24 of his prefiled testimony. Aqua addressed those problems in the Customer Report filed in this docket on August 24, 2020.

years to improve and resolve concerns and issues regarding secondary water quality. More specifically, witness Berger stated that Aqua NC has instituted:

- A Comprehensive Communications Program, including:
 - Maintenance of a Water Quality web page with FAQ's and status of filter installations by system and distribution of periodic newsletters
 - Customer letter notifications to communities where filters are installed to improve water quality improvements in their systems
- Hiring a dedicated employee for "Lab-D" calls ("Lab-D" represents discolored water calls)
- Improved communication and submittal process for Executive Summaries to Public Staff
- Installation of a Bayleaf Advisory Group to address concerns in Aqua NC's largest Public Water System
- Implementation of Bayleaf Advisory Group recommendations re:
 - Adding operations updates to water outages/main breaks to provide Customer Service Representatives and customers with current status information
 - Adding ".bitly" links to Water Smart Alert texts to link to the Aqua America website where customers can access additional information regarding the outage
- Improved metrics and tracking for Lab-D calls, to include after-hours calls

Witness Berger credibly testified that the Company's efforts are working, based upon the following data:

- 24.5% decline in Discolored Water Work Orders from 2017-2019 statewide (See Berger Rebuttal Exhibit 2)
 - Projected 25.1% decline in 2020 (See Berger Rebuttal Exhibit 2 Revised)
- 49% decline in Discolored Water Work Orders from 2017 to 2019 in Bayleaf Master System (See Berger Rebuttal Exhibit 3)
 - Projected 76% decline in 2020 (See Berger Rebuttal Exhibit 3 Revised)

- A reduction in Bi-Monthly Reporting from 18 systems to 2 systems
- A reduction in systems reported in Semi-Annual Water Quality Reports within the past 18 months
- Improved communication within Bayleaf customers, to include Advisory Group participants' assistance in social media messages
- A reduction in NCDEQ Notices of Deficiency from 68 Entry Points in 2018 to 13 Entry Points as of Quarter 1 2020.
 - The quarterly NOD communication is shared with the Public Staff and contains historical and recent sampling data and actions Aqua has taken and has scheduled to address secondary water quality issues.
- Communication from the former NCDEQ Raleigh Regional Supervisor stating, "Aqua has made tremendous improvements to a number of water systems regarding Fe/Mn and I'm sure the customers appreciate that! I appreciate all that you and the rest of the staff have done in regard to addressing Fe and Mn." (See Berger Rebuttal Exhibit 4)

Witness Berger also testified that the metrics listed above exclude the data from the Company's secondary water quality program. To update the metrics from December 2019 that witness Berger provided in her prefiled direct testimony, she stated on rebuttal that as of June 2020, Aqua has 67 Entry Points statewide that are listed as Group 1 ($\text{Fe} + \text{Mn} > 1.0 \text{ mg/L}$ or $\text{Mn} > 0.3 \text{ mg/L}$). Of those:

- Three (3) have filters scheduled to be installed in 2020
- Three (3) have filters currently in engineering design
- Eight (8) are awaiting Public Staff concurrence and support
- Two (2) are in draft Executive Summary form for future submittal to Public Staff for review
- Fifteen (15) are offline and are not providing water to the system
- Twelve (12) have alternative treatment or other sources of supply

- The remaining 23 are all undergoing prudency evaluation for future Executive Summary and consideration for manganese dioxide filtration
- Thirteen (13) filters have been installed since 2018 (inception of Secondary Water Quality Program) on sites identified as Group 1 (Fe + Mn > 1.0 mg/L: Mn > 0.3 mg/L)

Accordingly, the evidence of record clearly indicates and supports the conclusion that Aqua NC continues to demonstrate improvement in its ability to correct and mitigate secondary water quality issues related in particular to elevated levels of iron and/or magnesium in the Company's well water.

Third, Aqua NC has clearly demonstrated good cause in support of the Company's request to significantly modify and reduce its Commission-required reporting requirements on a going-forward basis. In that regard, the Commission concludes as follows:

(a) Bi-Monthly Water Quality Reports - There is no demonstrated need for the Company to continue to file bi-monthly reports addressing water quality concerns raised at the public hearings in either the Sub 497 rate case or the current Sub 526 rate case. Aqua NC has previously requested to be relieved of the requirement to file ongoing bi-monthly reports for 16 of the 18 water systems subject to continued reporting in the Sub 497 docket; and the Public Staff agrees to that position except for the Coachman's Trail water system. The Commission has carefully reviewed all of the bi-monthly reports filed by the Company to date in the Sub 497A docket and concludes that it is reasonable and appropriate to discontinue that reporting requirement for all 18 of the subject water systems.

In addition, the Commission has carefully reviewed Aqua NC's Customer Report, the Public Staff's Verified Response thereto, and the Company's Verified Reply Comments and concludes that Aqua NC's comprehensive responses to the complaints registered by each of the 24 customers who testified at the virtual public hearings are sufficient and obviate the need for ongoing Sub 526 bi-monthly reports. It is time to relieve the Company from some of the Commission-required reporting requirements in view of the demonstrated customer service and communications improvements implemented by the Company.

Aqua NC filed its first bi-monthly report addressing water quality concerns raised by customers at the public hearings in the Sub 363 rate case docket on May 28, 2014 (covering the months of March and April 2014). The Company's most recent bi-monthly report was filed in Docket No. W-218, Sub 497A on July 28, 2020 (covering the months of May and June 2020). Thus, Aqua NC has now filed these reports for more than six years. It is time to terminate this reporting requirement and move to another phase of evaluating ongoing customer service. The Company has been conscientious and detailed in faithfully reporting accurate information in these reports over a six-year period and has earned the trust necessary for the Commission to terminate this aspect of reporting.

In making the decision in this case to terminate the Company's bi-monthly reporting requirement on a going-forward basis, the Commission notes that, to date, Aqua NC has been the only Commission-regulated public utility subjected to such an obligation. Good cause exists to terminate that requirement at this time.

(b) Semi-Annual Secondary Water Quality Reports - Aqua NC filed its first semi-annual secondary water quality report in the Sub 363A rate case docket on August 15, 2014 (covering the six-month period of time from January through June 2014). The Company's most recent semi-annual report was filed in Docket No. W-218, Sub 497A on September 1, 2020 (covering the six-month period of time ending June 30, 2020). Thus, Aqua NC has now filed thirteen semi-annual secondary water quality reports during the last six years. The Company now proposes and requests that this Commission-required report be converted to an annual report on a going-forward basis.

The Commission finds good cause to grant the Company's request for the reasons set forth in witness Berger's rebuttal testimony. In lieu of the Commission's current bi-monthly and semi-annual reporting requirements, witness Berger recommended that the Commission establish an Annual Secondary Water Quality Report and that the annual report should provide an accounting of the progress made in the previous calendar year. The Commission adopts this proposal and concludes that it is in the public interest to do so.

In addition, the Commission hereby approves the Company's proposal to include the following data in its Annual Secondary Water Quality Report:

- A summary of systems to include secondary water quality concerns that have affected 10 percent of the customers in an individual subdivision area or 25 billing customers in an individual service area, whichever is less, in a semi-annual period.
- A secondary water quality data update on the number of entry points that have consistent water quality results greater than Group 1 (Fe + Mn > 1.0 mg/L or Mn > 0.3 mg/L) and status of each system.

- A secondary water quality project update that provides:
 - o Number of Manganese Dioxide filters installed in the previous calendar year;
 - o Number of Manganese Dioxide filters scheduled for the reporting year; and
 - o Executive Summary Update and status on filter project concurrence by Public Staff, to include an estimate of the Company's plans to submit executive summaries requesting filtration in the reporting year.

This annual reporting requirement will be entirely sufficient to provide the relevant information necessary to ensure that both the Commission and the Public Staff are fully informed with respect to the ongoing level and adequacy of the customer service and communications being provided by the Company.

In making the decision in this case to convert the Company's semi-annual reporting requirement to an annual report on a going-forward basis, the Commission notes that Aqua NC is currently the only Commission-regulated public utility which is subject to such an obligation.

Accordingly, the Commission finds good cause to grant Aqua NC's request to convert its semi-annual secondary water quality report to an annual report consistent with the treatment previously afforded to CWSNC in April 2016.

(c) Bi-Monthly Reports Regarding DEQ Communications - There is no demonstrated and compelling need for the Commission to require Aqua NC to continue to provide the Public Staff with information concerning all meetings and conversations (in summary note form) with reports to and the recommendations of DEQ regarding the water quality concerns being evaluated and addressed in Aqua NC's systems.

The Commission finds good cause to rescind this six-year-long reporting requirement based on the evidence of record which clearly indicates that (a) Aqua NC has a historically strong compliance record on primary water quality concerns; (b) the Company's primary drinking water compliance record is also historically very good when compared across North Carolina systems and other similarly sized and regulated water systems; (c) Aqua NC continues to demonstrate clear improvement in its ability to correct and mitigate secondary water quality issues related in particular to elevated levels of iron and/or magnesium in the Company's well water; and (d) the Public Staff (and the Commission) have the ability to independently consult with and request information from DEQ regarding water quality concerns affecting Aqua's customers. Here again, the Commission notes that Aqua NC is the only regulated public utility in this state which is subject to this reporting requirement. This reporting requirement has been in place since May 2014, when it was ordered by the Commission as part of the Sub 363 Rate Case Order. It is time for a new approach which trims the reporting burdens placed on the Company and which aligns regulatory focus on the mechanics and results of solutions, which are being found in the WSIC/SSIC process and in the Water Quality Improvement and Communications Plans. That said, the Commission notes that Aqua NC itself agrees to continue to provide DEQ Notices of Deficiency to the Public Staff.

(d) Other Ongoing Reporting Requirements - Good cause exists for the Commission to require Aqua NC to continue to file its annual Three-Year WSIC and SSIC Plan; its Quarterly Earnings, WSIC/SSIC Revenues, and Construction

Status reports; its Annual Heater Acquisition Incentive Account Report; and all DEQ Quarterly Notices of Deficiency. The Company does not oppose continuation of these Commission-required reports and their continuation is non-controversial.

(e) Cooperation between Aqua NC and the Public Staff - The Commission finds good cause to require Aqua NC and the Public Staff to continue to work together in good faith regarding the development of appropriate recommendations and solutions to improve secondary water quality as impacted by the levels of iron and manganese at the Company's affected water systems. Cooperation between the utility and the consumer advocate is key to seeing that Aqua NC's customers receive water and sewer utility service that meets the "adequate, efficient and reasonable" standard required by G.S. 62-131(b).

Often, the Company and the Public Staff are, by necessity, adversary parties. But they should not be adversaries where customer service is concerned. Their goals should always be same – to ensure that customers consistently receive safe, reliable, adequate, and reasonably-priced utility service. Much can be achieved by cooperation between the utility and the consumer advocate. Through good-faith consultation and cooperation, the Company and the Public Staff can productively resolve some problems, rather than exacerbate or unduly complicate them.

In the final analysis, Aqua NC is the utility owner and operator with the greatest degree of expertise in (and the ultimate responsibility for) its utility operations. The Public Staff brings a different level and type of knowledge to the table in its capacity as a consumer advocate. The combination of their skill sets,

when applied to the common goal of customer service, inures to the benefit of customers.

Accordingly, the Commission finds good cause to modify the ongoing Commission-required reporting requirements applicable to Aqua NC as set forth above.

**SUMMARY OF CONCLUSIONS — SERVICE, WATER QUALITY,
ENVIRONMENTAL COMPLIANCE, COMMUNICATIONS AND REPORTING**

The evidence before the Commission establishes that the overall quality of water service provided by Aqua NC, viewed on a company-wide and system-wide basis, meets the statutory requirements set forth in G.S. 62-131(b), which is to “...furnish adequate, efficient and reasonable service.” Aqua NC is and has been proactively working to address the emerging contaminant levels in the water the Company purchases from the Town of Pittsboro as well as the TTHM issues that have existed at The Cape. At the time of the customer hearings, Aqua NC was and continues to be in compliance with all federal and state primary health-based water quality standards. While sixty eight (68) of Aqua NC’s water systems were noted for deficiencies related to secondary water quality standards in 2016, due in part to a change in DEQ standards, the Company has worked actively and successfully with DEQ and the Public Staff to bring them into compliance.⁹ The elements addressed by secondary water quality standards are not considered to pose health risks, but they are nonetheless important and Aqua NC has recognized that in its efforts. Customers who incur the expense of purchasing bottled water in

⁹ Aqua was praised for its performance by the former DEQ Regional Supervisor.

addition to paying Aqua NC for water utility service also bear the burden---including the cost---of the impact of water that adversely impacts their general cleaning, laundry, and appliance and fixture usage. The presence in the source water of these contaminants, which react in a negative way, is not within Aqua NC's control. The patterns of growth and location of development are the result of decisions made by developers, governments, and buyers who in many instances precede Aqua NC's participation in this process. However, the solution is now Aqua NC's responsibility. The Company is expected to continue its diligent efforts to reduce the impact of these elements in drinking water across its systems, and the Commission notes both that (a) the reasonable cost consequences must be demonstrated by clear proof which withstands rigorous audit and (b) those costs must be recognized, made recoverable, and fairly allocated across the customer groups. The work to be done to assure water quality at a level desired and demanded by customers entails significant costs that must be paid, and that should be understood by all.

The Commission further concludes that Aqua NC's Water Quality Plan, intended to prioritize and address water quality issues through increased capital investment and improvements to operations including installation of filters and treatment such as sequestering, as well as improved tank cleaning methods and procedures and increased flushing, is evolving as a targeted effort to improve the unresolved water quality issues that persist in Aqua's systems. The Commission expects that as the Company and the Public Staff, in conjunction with input from DEQ, will monitor the implementation and effect of actions taken in accordance

with the Plan and that the Plan may need to be adjusted over time. The Commission appreciates and encourages the Company's and the Public Staff's attention and simultaneous commitment to addressing the serious water quality issues in the Company's affected water systems while attempting to maintain affordable service in all of its service areas in North Carolina. While quality and affordability interests must be balanced, the Commission is mindful that ratepayers must receive useable water in exchange for the rates they pay, and understands that some of the solutions will necessarily increase rates.

With regard to wastewater service, the Commission finds and concludes, based on the record before it, that Aqua NC is providing adequate service and that the Company operates its wastewater plants in a prudent manner. While the Company received NOVs for events and conditions at 25 of its 59 wastewater plants¹⁰, between September 2018 and March 31, 2020, Aqua NC corrected the situations and has not sought recovery from ratepayers for any fines, penalties, and attorneys' fees that were related to some of these NOVs. The Company acted appropriately to return the plants to full compliance, and at the time of the hearing, the plants were in fact in compliance. Given the small and scattered nature of wastewater plants owned by investor-owned utilities in North Carolina, the Commission does not find that the mere occurrence of isolated instances of non-compliance necessarily means that overall company-wide wastewater service is inadequate.

¹⁰ Five of which resulted in assessment of penalties.

Aqua NC's efforts to improve its customer service through its Customer Communications Plan demonstrate the Company's commitment to improving its customer relations by putting enhanced protocols in place to assure responsiveness to customer inquiries, concerns, and service calls. The Plan, which is tied to the Water Quality Plan, helps the Company inform and educate customers about quality improvement plans, including such implementation aspects as cost impacts of improvement measures, the work involved, and the timing of such work.

Finally, the improvement in metrics related to customer concerns, as exhibited in the numerous reports heretofore filed by Aqua NC, combines with the Commission's recognition that the benefits of any reporting requirement must be commensurate with the costs. Therefore, the Commission concludes that good cause exists to modify the Company's ongoing reporting requirements as set forth in this Order.

IT IS THEREFORE ORDERED, AS FOLLOWS:

1. That the bi-monthly reports required by Ordering Paragraph No. 9 of the Sub 497 Rate Case Order (which required Aqua NC to continue to file bi-monthly reports addressing water quality concerns raised by customers at the public hearings) are no longer necessary or warranted and such reporting requirement is hereby terminated.

2. That the semi-annual report required by Ordering Paragraph No. 10 of the Sub 497 Rate Case Order (which required the Public Staff and Aqua NC to

continue to work together to develop and implement plans to identify and respond to secondary water quality concerns that occur in significant numbers in individual subdivision service areas) shall be converted to an annual reporting requirement. The first annual report to be filed jointly by Aqua NC and the Public Staff shall cover the twelve-month period from July 1, 2020 through June 30, 2021, and shall be filed by September 30, 2021.

3. That the bi-monthly reports required by Ordering Paragraph No. 14 of the Sub 497 Rate Case Order (which required Aqua NC to continue to promptly provide to and share with the Public Staff information concerning all meetings and conversations in summary note form with reports to and the recommendations of DEQ regarding the water quality concerns being evaluated and addressed in Aqua NC's systems) are no longer necessary, warranted, or productive and such reporting requirement is hereby terminated.

4. That Aqua NC shall continue to file its annual Three-Year WSIC/SSIC Plan; its Quarterly Earnings, WSIC/SSIC Revenues, and Construction Status reports; its Annual Heater Acquisition Incentive Account Report; and the Company's DEQ Quarterly Notices of Deficiency.

5. That Aqua NC and the Public Staff shall continue to work together regarding the development of appropriate recommendations and solutions to improve secondary water quality as impacted by the levels of iron and manganese at the Company's affected water systems.

6. That the Chief Clerk shall establish Docket No. W-218, Sub 526A as the reporting requirement docket for Commission-required reports as ordered herein and also for WSIC/SSIC filings.

7. That, at any time after a year from the date of issuance of this Order, Aqua NC may request that the Commission revise or eliminate the regular and periodic reporting requirements ordered herein due to demonstrated and significant progress in customer satisfaction and improvements made in water quality related to levels of iron and manganese.

CERTIFICATE OF SERVICE

I hereby certify that I have served a copy of the foregoing **Proposed Order - Customer Concerns and Reporting Issues**, filed by Aqua North Carolina, Inc. in Docket No. W-218, Sub 526, on the parties of record in accordance with North Carolina Utilities Commission Rule R1-39, either by United States mail, first class postage pre-paid; by hand delivery; or by means of electronic delivery upon agreement of the receiving party.

This the 25th day of September 2020.

Electronically Submitted
/s/Jo Anne Sanford
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