

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

August 24, 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
Report on Customer Comments from Public Hearings Held on August
3, 2020

Dear Ms. Campbell:

Attached please find Aqua North Carolina, Inc.'s Report on Customer
Comments from Public Hearings Held on August 3, 2020, in this case. We will
provide a Word version to the Commission.

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

DOCKET NO. W-218, SUB 526

In the Matter of

Application by Aqua North Carolina, Inc., 202 MacKenan Court, Cary, North Carolina 27511, for Authority to Adjust and Increase Rates for Water and Sewer Utility Service in All Service Areas in North Carolina)))))))	REPORT ON CUSTOMER COMMENTS FROM PUBLIC HEARINGS HELD ON AUGUST 3, 2020
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NOW COMES Aqua North Carolina, Inc. (“Aqua” or “Company”) and files this report in response to the two public hearings held by means of the North Carolina Utilities Commission’s (“NCUC” or “Commission”) on-line WebEx platform, on Monday August 3, 2020. These hearings provided telephonic access by customers for receipt of sworn testimony; they were arranged in lieu of the originally scheduled public hearings,¹ which were unavoidably canceled due to the impact of the Coronavirus. The first hearing began at 1:30 p.m. on August 3d and concluded at 4:20 p.m., and the second began at 6:30 p.m. and concluded at 8:26 p.m.

Commissioner ToNola D. Brown-Bland served as the Presiding Commissioner and was joined by Chair Charlotte Mitchell as well as Commissioners Lyons Gray, Daniel G. Clodfelter, Kimberly W. Duffley, Jeffrey A.

¹ The Public Hearings were originally scheduled, by Commission Order of February 14, 2020, for: Wilmington, on Monday, April 13th; Greensboro, on Monday, April 20th; Gastonia, on Tuesday, April 21st; Statesville, on Wednesday, April 22d; Raleigh on Monday, April 27th; Fayetteville on Wednesday, April 29th; and Raleigh on Tuesday, June 23d. These public hearings were postponed by Order of March 31st and were rescheduled by Commission Order of June 29th.

Hughes, and Floyd M. McKissick, Jr.

Staff Attorneys Megan Jost, William E. Grantmyre, and William E. Creech appeared for the Public Staff on behalf of the using and consuming public. Teresa Townsend, Special Deputy Attorney General, appeared for the Attorney General's Office, also representing the using and consuming public.

Jo Anne Sanford of the Sanford Law Office, PLLC and Robert H. Bennink, Jr. of the Bennink Law Office appeared on behalf of Aqua, joined by Shannon V. Becker, President of Aqua North Carolina. Other Company personnel, in addition to Mr. Becker, who were watching and listening to the webcast and available to investigate and follow up with customers to assist with questions or requests included:

Joe Pearce, Operations Director
Amanda Berger, Environmental Compliance Director
Robyn Lambeth, Sr. Executive Assistant
Alice Greene, Customer Care Team Lead
Rob Krueger, Central Area Manager
Laurie Ison, Western Area Manager
Joel Mingus, Coastal Area Manager
Statewide Supervisors - Roger Tupps, Lorrie Stagner, Peter Rhodes, Jackie Jackson, Dave McDaniel, Duane Rimmer, Matt Costner, and Chris Collins
Ruffin Poole, Business Development Director
Dean Gearhart, Rates and Planning Manager
Michael Melton, Engineering Manager
Dawn Markarian, Technical Services Specialist
Paula Frost, Meter Operations Supervisor, and
Debbie Dycus, Environmental Compliance Administrator

A. Purpose of Report

This report summarizes the customer service quality concerns expressed at the customer hearings, addresses the Company's specific responses and levels of corrective actions, explains how investment obligations and ratemaking

consequences inter-relate, describes the levels and types of investment made by Aqua in North Carolina, discusses certain aspects of the ratemaking process, and describes generally the Company's position on and communications about its service to these and other North Carolina customers.

B. Organization of Report

Aqua initially provides an overview of the hearings, including information about the various systems that were discussed in customer comments and the types of concerns expressed. Next, more general responses to the customer concerns are addressed, dealing with the Company's management of issues under discussion, such as iron and manganese, flushing, and customer communications, for example. Finally, the customers are grouped by system, rather than by order of appearance, for discussion of their particular concerns. This grouping would have occurred naturally in the order of appearance of witnesses had the traditional public hearing format been possible. Since it was not, Aqua will---for the sake of logic and efficiency in this presentation---re-arrange the customers to organize and present their comments and the specific responses by system, rather than by order of appearances in the record.

C. Overview of the Public Hearings

Twenty-four customers testified over the course of the two public hearings. The 24 witnesses represented 21 subdivisions located within 18 separate water systems, as follows:

Subdivision	Water System
Coachman's Trail	Bayleaf Master
Hunters Landing	Bayleaf Master
Sussex Acres	Bayleaf Master
Wood Valley, Heavenridge	Bayleaf Master
Castle Bay	Castle Bay
Chapel Ridge	Chapel Ridge
Cottonfield Village	Flowers Plantation
Emerald Woods	Emerald Woods
Farrington	Cliffdale West
Mariner's Pointe	Mariner's Pointe
Myatt Mill	Myatt Mill
Olde Beau	Olde Beau
Park South Station	Park South Station
South Hills	South Hills
Stagecoach	Stagecoach
Regency Lake	Regency Lake
The Cape	The Cape
Timberline Shores	Timberline Shores
Wexford	Wexford
Wild Wing	Wild Wing
Wrightsboro	Wrightsboro

D. General Responses to Customer Concerns and Issues

Categories of Customer Concerns

The customer concerns, variously expressed by the 24 customers, included the following general topics, as listed below. These general topics will be

addressed next, followed by specific responses to the testimony of each customer witness.

- General objection to rate increases;
- Rate design:
 - expressed preference for volumetric rates; or
 - alternatively stated, expressed preference for a lower Base Facilities Charge (“BFC”);
- Water quality (including “rust” or “black” colored stains, salty finish in sinks, dark colored water, bleach smell, Trihalomethanes, and milky colored water) and service;
- Communications - in general, and regarding notice concerning flushing events; and
- Comparisons of rates, compared to municipal or county providers.

1. Concern - General Objections to Rate Increases

(a) Proposed Rates – Ratemaking Process

Aqua wishes to explain the process by which these rate increase requests are examined and decided. Proposed rates are not subjectively developed. They incorporate actual capital costs previously incurred and representative of current, actual operating costs. These costs are presented in verified pleadings (under oath) and are rigorously examined over the course of a process that can take 300 days, from date of filing. The legal principles that govern ratemaking are set forth in North Carolina General

Statutes, Chapter 62, and in rules promulgated by the Utilities Commission under those statutes.

By law, Aqua receives a rate increase *only* if it proves, in the face of a scrupulous investigation by the Public Staff, who acts as the consumer advocate (and any Intervenor opposition), that such an increase is authorized under the law based on the actual cost and level of prudent and reasonable investment in plant and operations. Further, investment in plant is only recoverable *after* it has been made (and paid), placed into service, audited by the Public Staff, and approved by the Commission. This principle---referred to as the “used and useful” requirement---applies whether costs are recovered in a general rate case or under a system improvement charge.² Furthermore, objections to the proposed rate increase request and rate design matters raised by some customers at public hearings involve complex issues to be decided by the Commission based upon careful consideration of all the evidence, including customer testimony, offered in this proceeding.

(b) Investment. The obligation to provide safe drinking water and proper wastewater collection and treatment---all compliant with public health and safety standards---requires massive investment in infrastructure, as well as in sophisticated programmatic and operational resources. These obligations apply 24 hours per day, seven days per week and 365 days per year, require constant attention, and rely on significant investment in plant,

² Also, known as the Water System Improvement Charge (“WSIC”) and the Sewer System Improvement Charge (“SSIC”).

much of which is underground or otherwise out of sight of most observers--- by design. Aqua has invested significant amounts of money in North Carolina over time. Further, over the past several years, the amounts of money invested in infrastructure have sharply increased and the Company's annual expenses have steadily grown (see the table, below). Individual investments in capital may not be visible to a customer, and in any given year the larger investments will be dispersed across the state. But any utility system will sooner or later need significant investment, and when that is required, that system and its customers will benefit from the ability to spread the costs across the larger body of ratepayers.

The following is a general representation of expenditures made by Aqua for capital and on expenses in the calendar years represented. The capital expenditures are net of Contributions in Aid of Construction ("CIAC"), which is the means by which developers actually fund certain capital costs; therefore, these figures generally represent the investment by Aqua in the systems and the services provided in North Carolina.

	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020*</u>
<u>Capital</u>	\$12.6M	\$18.1M	\$22.9M	\$38.3M	\$36.1M	\$34.8M	\$37.0M
<u>Expense</u>	\$42.4M	\$43.5M	\$42.6M	\$44.3M	\$47.1M	\$50.6M	\$51.7M
<u>Total</u>	\$ 55.0M	\$61.6M	\$65.5M	\$82.6M	\$83.2M	\$85.4M	\$88.7M

*Forecasted through December 31, 2020

The 20-year water and wastewater infrastructure needs for North Carolina range from \$17 to \$26 billion for drinking water and wastewater systems combined according to estimates by the Environmental Finance Center at the University of

North Carolina at Chapel Hill.³ Since the Company's last rate case, Aqua invested approximately \$58.2 million in capital in North Carolina during the 21-month period from July 1, 2018 through March 31, 2020.

2. Concern - Rate Design (particularly concerning fixed to volumetric charges)

As a general proposition, the mode of rate design fulfills the requirement of designing rates that are reasonably probable to allow for recovery of the revenues authorized by the regulatory body. In this case, that regulatory body is the Commission. Rate design can be adjusted to accomplish a range of worthy goals, including conservation, for example. However, it is critical to note that slight modifications to rate designs will impact customers differently as the intended amount of revenue to be billed and collected is the same under all rate design scenarios, but how much each user contributes will vary with differing rate designs. With increasing (inclining or tiered) block rates, those customers who use the most water and place the highest demands on the water system pay a higher rate as they consume more water. This pricing structure is meant to promote conservation and benefits consumers who use less water. The resulting decreased demand on water capacity also reduces the risk of depletion of the limited water resources, helps minimize water quality issues that result from straining the capacity (e.g., milky water), and curtails the need to spend additional capital on new water sources necessary to meet high peak seasonal demands (e.g., irrigation). Customers who opt to use more water will then be funding the increased capital

³ <https://deq.nc.gov/news/press-releases/2019/07/23/governor-cooper-announces-112-million-water-projects-north-carolina>

and operational costs per production unit associated with their greater levels of service.

The more emphasis there is towards volumetric recovery in a rate design (said otherwise, the lower the Base Facilities Charge or “fixed” charge component of rates), then the higher the overall bill will be for a larger consumer of water---whether that consumer is filling a swimming pool or housing a large family. Conversely, the higher the Base Facilities Charge (or “fixed charge” component of rates), then the more a small consumer of water might pay in monthly charges, relative to one who consumes more water. Customers simply, and naturally, differ in their consumption habits, and some will find their interests better served by one rate design, while others will favor---and benefit from---another.

Add to this realization the argument made by Aqua that the Base Facilities Charge should account for recovery of “fixed” or immutable charges---like the plant in the ground---and one will more fully consider part of the broad range of issues that are associated with a decision about fixed versus variable components of rates. For purposes of responding to customers, Aqua in this report simply says that no matter how the rates are designed, those rates are required to allow a reasonable opportunity for recovery of the revenues to which the Company ultimately proves it is entitled. How that recovery is allocated as among various customers is a matter of fairness and policy and is a matter ultimately for the Commission’s decision.

3. Concern - Water Quality and Service

(a) Iron and Manganese

Second only to the concerns expressed about a rate increase, some of the customers who testified addressed concerns about the impact on their water of naturally occurring iron and manganese in the groundwater supply. This section of Aqua's report focuses on that issue, the existing and potential options for treatment, the Company's current treatment protocol, and the cost consequences that flow from the various options.

Iron ("Fe") and manganese ("Mn") are some of the most abundant and naturally-occurring elements of the soil and rock formations from which groundwater is extracted in North Carolina. The low potential for these naturally-occurring elements to be toxic or harmful to humans is reflected in the fact that they are not the subject of primary drinking water standards, but rather of secondary standards. Secondary standards were established to assist public water systems with respect to aesthetic attributes of water that are not considered to present a health risk.

Aqua recognizes and shares customer concerns about the impact of higher concentrations of these secondary water quality elements on the delivered water. The Company, along with the entire water utility industry, is mindful of the complaints about home filter life and stained appliances and clothes, as well as the aesthetic impact and overall customer concern stemming from the presence of these elements. It should be emphasized that this is a historical concern---not a new one---as the geology of the North Carolina has produced this issue from the dawn of drilling

In the Aqua statewide system, out of more than 1,400 wells, approximately 20% are challenged by elevated levels of iron and manganese in the groundwater supply. The treatment and removal methods, from least costly to most costly, are the following:

(i) **Flushing**

There are multiple approaches to mitigating elevated concentrations of iron and manganese. The most common method---and the least-cost approach, when it can be used---is flushing to remove iron and manganese sediments from the water distribution system. Flushing provides some immediate water quality improvement by removing these mineral sediments from the water mains but may increase sediment concentrations deposited in the water service lines, which can temporarily increase the volume of water quality calls from customers. Customers are notified of planned, non-emergency, flushing events in their area in advance of the scheduled activity to minimize negative impacts of resultant discolored water and are encouraged to flush their water services through their outside taps following flushing activities.

Interconnected and larger systems can take days, weeks, and even months to flush depending on the size of the system. Since sections of systems are interconnected, water quality may be temporarily affected on one street when another distant street is being flushed. Because of this duration, it is sometimes difficult to pinpoint the potentially impacted customers on any one day while a system is being flushed. Therefore, flushing notices typically cover the duration of several days over which the flushing campaign from a community is performed.

Flushing notices identify the period of time the flushing activities performed by Aqua employees will take place; however, the potential discoloration that may result from this activity will extend beyond the scheduled flushing period until the homeowner's services and internal plumbing are also flushed.

(ii) **Sequestration**

A second method is chemical sequestration. Chemical sequestration is typically completed by the addition of inorganic polyphosphate blends. Some polyphosphates combine with iron and manganese to create colorless water-soluble compounds. The use of polyphosphates can also increase the release of sediments in the water distribution system; therefore, flushing to remove these released sediments is important to maintain water quality, yet is also a temporary source of water quality impairment as sediment is dislodged. Polyphosphates have been approved as an aesthetic water quality treatment, but must be carefully studied prior to introduction or when changes are made to dosing as polyphosphates can impact corrosion control or create other water quality issues. Polyphosphate sequestration is not permanent. Chlorine reacts to release the sequestered mineral from suspension and over time the mineral will appear in its oxidized form. The reaction time for polyphosphates is also reduced with elevated temperatures, such as in hot water heaters. Sequestration does not remove the mineral; it only temporarily maintains (suspends) the mineral in its soluble form so it is not visible.

(iii) **Filtration**

Since 2015, Aqua has installed 46 iron and manganese filters statewide at a cost of \$16.8 million and 56 cartridge filters at a cost of \$218,000. The Company's combined investment in filtration totals over \$17 million.

For well sites with the highest concentrations and loads of iron and manganese, new filtration treatment is scheduled for installation, subject to intensive Public Staff review and Commission approval. Aqua's goal is to continue to install ten to fifteen new filtration treatment systems annually on wells that negatively affect water quality the most and based on each well's level (contribution) of iron and/or manganese entering the water system. The cost of most filtration systems of this type is approximately \$250,000 to \$400,000 upon completion. Installations are prioritized in coordination with the Public Staff and the North Carolina Department of Environmental Quality ("DEQ").

(b) **Water Quality Plan**

In addition to addressing the source water quality issues with filtration and water treatment tools, Aqua rolled-out and implemented an aggressive water quality operational plan in January 2018, to ensure that water quality is addressed pending the completion of requisite capital improvements. In addition to the filter installations, the Water Quality Plan included the launch of a tank cleaning project, in-house water quality monitoring program, and development of a rigorous flushing plan for those systems with the highest level of minerals causing secondary water quality complaints. Significant progress has been made and it will continue.

(c) Other impacts on Water Quality and Service

Water quality complaints often also result from, among other things, emergency water main breaks, equipment failure, power outages, and construction activities that may disturb the directional flow of water in a distribution system when implementing capital projects or making other repairs. While Aqua provides advance notification for scheduled flushing activities through its WaterSmart Alert program, certain system repairs are performed on an emergency basis and pre-notification of potential water quality impacts is not always possible.

While it is typically cost-prohibitive to install a filter on a community well-water source to treat 100% of the water that would be necessary to eliminate all naturally-occurring minerals that may cause secondary water quality or hardness concerns, customers may choose to install home (or point of use) filters to address personal water quality preferences beyond United States Environmental Policy Administration (“EPA”) standards and regulations. Hardness is often one reason a customer may decide to install a softener or filtration. While not regulated by the EPA, as hardness is a result of high mineral content that does not impact public health, it can lead to limescale formation on faucets or fixtures or reduce soap formation. Calcium and magnesium dissolved in water are the two most common minerals that make water hard and can cause a residue build-up mentioned by several customers in these customer hearings. Choosing to treat for hardness at the public water supply level must be carefully considered as softeners can result in elevated sodium concentrations that could impact those with compromised health.

Whole house filters [e.g., ion exchange, granular activated carbon (“GAC”), reverse osmosis (“RO”), and cartridge filters] will remove certain minerals and chemicals from the water entering the home. The EPA and Center for Disease Control (“CDC”) have a series of guidance documents which address whole home filter systems and provide guidance on the selection and consumer use and expectations of these systems. The EPA recommends that filters be certified by the American Water Quality Association (“AWQA”), National Science Foundation (“NSF”), Underwriters Laboratories (“UL”) or American National Standards Institute (“ANSI”). The EPA and CDC also state that consumers should have their water tested and contact their drinking water system regarding the supply’s quality prior to selecting and installing a home filtration system.

In the absence of sampling and/or water quality data, filter systems may not perform as expected and can cause damage to interior plumbing. The EPA and CDC advise consumers that the selection of filters should be based on the specific contaminants of concern, as the micron size of the filter is designed based on the contaminant. Most filters are designed to remove bacteria or protozoa and the micron size is exceptionally small to be effective in removal of microscopic matter. Utilizing smaller micron pores to remove larger particulates, such as iron and manganese, will result in the consumer having to replace the filter more frequently as it was not designed for that use. Aqua encourages its customers to utilize the CDC and EPA guidance documents when selecting a filter and provides its customers with water quality data through its annual Water Quality Report and upon customer request.

Finally, occasionally problems are associated with low water pressure triggered by the location of a customer near the end of a line (farthest from the source), or at a higher elevation; or more commonly due to high demand on a system such as from extensive irrigation in the summer. While the water systems are psi designed to maintain a minimum continuous pressure of 40 psi, as established by EPA and NCDEQ, Aqua operates most of its systems with a minimum pressure of 45 psi. Aqua should be contacted immediately if you experience an unexpected fluctuation in your water pressure to determine if a distribution system, well pump, or tank pressure issue exists. If the issue is not determined to be a temporary mechanical issue, pressure monitoring will be necessary and an engineered solution determined. Potential solutions include operating the system with a higher operating pressure, installation of a booster pump, or increasing the distribution main size.

(d) Emerging Contaminants and Disinfection Byproducts

Two customers presented concerns associated with water quality concerns attributable to Disinfection Byproduct (“DBP”) issues and emerging contaminants. Chapel Ridge, one system represented in the hearing,⁴ has been the subject of press attention from elevated levels of 1,4 Dioxane and PFAS. Aqua is actively involved with other utilities and regulators and is working with the North Carolina Department of Environmental Quality on these and other issues. In the Haw River and Cape Fear River, 1,4 Dioxane and Bromide appear to be related to the discharge from a few specific upstream municipal wastewater treatment plants.

⁴ Aqua purchases water from the Town of Pittsboro to supply Chapel Ridge.

NCDEQ has initiated enforcement actions against one of these municipal wastewater treatment plants. These contaminants are not the result of actions by water systems and treatment comes at a great expense to ratepayers.

The Cape Master system was also mentioned in customer testimony due to concerns posed by on-going elevated DBPs in one area of the system. Aqua initially hired an outside consultant to review water quality and the engineering firm made a recommendation to install chloramination at a cost of \$1.7 million for the ten active wells. Additional monitoring by Aqua discovered that the source of the elevated DBPs is saltwater intrusion in one well on the southernmost section of the system. With this information, Aqua recognized that it could address this issue more prudently by installing a new well on the northern side of the system and by installing a manganese dioxide filter on an existing well that has been inactive due to elevated levels of iron and manganese. These initial steps, along with increased monitoring and operational changes, have resulted in the system returning to compliance in the second quarter of 2020.

4. Customer Communications

Some customers provided testimony regarding the Company's communications resources and policies. Aqua has made several improvements to its local communications efforts since the Company's last rate case (W-218, Sub 497) using customer input from its customer focus group, including: 1) improved messaging of flushing campaigns using WaterSmart Alert; 2) increased use of local signage at community entrances and exits for awareness of flushing activities while a campaign is in progress; and 3) addition of a bit.ly link

on WaterSmart text messages that allow customers to be taken to a site with a comprehensive message.

Aqua provides a broad range of options and resources for both one-way alerts and two-way communications.

(a) Website

The Company has created a website dedicated to providing information related to the issues of iron and manganese. The website can be found at www.NCWaterQuality.com. This website is meant to serve as an educational resource for better understanding of the issues of iron and manganese for customers, community leaders and other key stakeholders. Customers can sign up for direct email updates and to receive a periodic water quality newsletter. This site shows the progress of completed filter projects, as well as the status of those planned and in process or pending regulatory approval. In addition, customers can ask direct questions about their system and better understand the process for receiving approval for the installation of additional filtration treatment, which is documented in the Company's Water Quality Plan.

(b) Call Center

With respect to call handling, when a customer contacts the Call Center, the telephone number from which they are calling along with the last seven digits of their account number links to the customer's record on the service representative's monitor. This provides immediate access to the customer's address, service area, and prior service orders. The customer service representative often knows the customer's address prior to the caller providing their address. If this information is

unknown, the customer enters their zip code and is transferred to a call center representative. The customer service representative also has knowledge of the system notices which have been issued for those respective addresses.

(c) Personal Contact from Field Operators

Beginning in the second quarter of 2018, Aqua implemented a new customer service initiative designed to provide an opportunity for customers to have a personal contact after certain types of field operator visits to a customer's home. In addition to leaving door tags, field operators now contact customers after every discolored water work order they complete to inform the customer of the status of their work and answer questions. Since the start of the COVID-19 pandemic, direct or close contact by operators with customers has been limited; follow-up to provide a status of the resolution of a discolored water work order is made via phone call following completion of applicable work. Aqua believes this is an important step in improving customer service and provides valuable feedback. Oftentimes, a customer may not know that a field operator visited a customer's house because a door tag might not be visible or a customer might not understand the work performed. This follow-up call, along with another made to these same customers the following week from a member of the Aqua North Carolina team to ensure the issue was addressed, helps close the loop with customers and leads to a better understanding as to whether the customer's issue was resolved.

(d) Customer Experience Program (CX Program)

Aqua implemented a formal customer experience program with the goal of improving customer service across all states and sectors. This program highlights the Company's commitment to the core values of respect, integrity, and the pursuit of excellence.

At the end of 2019, Aqua formally launched the CX program and has taken the following steps in identifying and implementing important operational changes to improve the Company's customer service:

Residential Water Customer Journey Mapping. In an effort to better understand how Aqua perceives customer experience through an internal lens and identify areas of success and improvement opportunities, Aqua mapped every touchpoint residential water customers have with the Company from the time they start service, turn on their faucet, pay a bill and every other possible interaction they may have with Aqua.

Formal Customer Survey. In early 2020, Aqua released a customer survey to directly hear from customers about their experiences with Aqua's service. With this enlightening feedback, Aqua is determined to improve water quality communication and education, to better communicate emergency and outage events and to provide better scheduling options for our customers.

CX Working Groups. As a result of customer feedback, Aqua launched a number of cross-functional working groups focused on improving communication with our customers regarding outage and boil water notices, implementing proactive customer appointment confirmations, providing education regarding

water quality concerns and exploring technologies the company can leverage to better communicate with its customers.

(e) Service Pressure Advisory (“SPA”)

An SPA is commonly issued via Aqua’s WaterSmart Alert notification process when there is a potential drop in pressure below 20 psi within a water system that results from a source, electrical outage, or distribution system issue. The SPA is issued by Aqua as a precautionary measure to affected customers within a system when there may be potential for bacteriological contamination resulting from reduced water flow (e.g., main break or well failure). Although not required, an SPA recommends that consumers boil their water for one to two minutes as a precautionary measure. Since the last rate case, and with the assistance of a customer focus group, Aqua amended the SPA notification language to provide more accurate descriptions of the issues to customers. Additionally, Aqua’s field operations team provides an estimated time to repair that is tracked for Customer Service Representatives to utilize for customer calls regarding the issue and is also available to customers by entering their zip code at the bottom of the AquaAmerica.com page. Aqua’s standard operating procedure for issuing an SPA requires that once system repairs are complete, Aqua will flush the affected portions of the distribution system and take a bacteriological sample that is submitted to an approved laboratory for analysis. Results typically take 24 to 48 hours to receive. If sample results indicate no bacteria, the customers are notified that the SPA is lifted via a separately issued WaterSmart Alert.

(f) Boil Water Advisories (“BWAs”)

A BWA is a required EPA and DEQ notification that is issued via Aqua’s WaterSmart Alert notification process as a result of certain contaminants or contaminant levels being detected during sampling of a water system. Aqua issued no BWA’s for at least the past two years; they are not common. BWA’s are only issued to customers within a system who should boil their water before use. All customers within an interconnected system (e.g., Bayleaf) will receive an advisory for any single event, as well as a notice “lifting” the requirement via Aqua’s WaterSmart Alert notification process (if they have subscribed), once test results show the contamination is no longer an issue.

(g) Legal Compliance Regarding Notice

In a rate case, the Notice to Customers is prescribed by the requirements of statute and is issued by the Commission, based upon the input of Aqua and the Public Staff. It is a joint effort to provide specific information to all customers about current and proposed rates. Rate notices are sent to the billing addresses of each and every customer located within a system for which a rate case is filed. Aqua sent the initially-required notices of the rate case and the schedule of hearings for Fairways/Beau Rivage customers on March 3, 2020, Brookwood Water customers on March 4, 2020, and Aqua NC customers on March 5, 2020, by means of Standard Pre-Sort US Mail, and sent the revised notices of public hearings along with the notice of temporary rates under bond to all customers on July 10, 2020, by United States Postal Service First Class Mail.

(h) Meter Change Program

Aqua continues to implement its aged-meter change program and move to radio frequency (“RF”) capable meters that track daily customer usage and improve its communications of relevant customer usage data. To date, Aqua has installed RF capable meters to service approximately 50% of its 82,000 North Carolina water customers; the remaining 50% are expected to be completed by 2026. In addition to the operational efficiencies these advanced meters offer, Aqua currently uses this meter data to proactively report potential high usage and leaks to individual RF metered customers and troubleshoot main or service line breaks that may be causing water quality or pressure issues. While Aqua is actively working on options to provide daily customer usage data in a user-friendly format, customers who currently have RF meters may contact Aqua’s Customer Service Department to request a daily usage report which may be used to help address high usage bills or other concerns.

(i) Rate Comparisons

Customers in this rate case, as in every case, understandably have questions about why there are cost differentials between Aqua’s rates and those of various nearby governmental providers of water and/or wastewater utility services.

Any attempt to make meaningful comparisons between statewide average costs for all water and wastewater service providers and the costs of a provider like Aqua likely results in an “apples to oranges” assessment. The core distinction is found in the concept of “economies of scale.” The cost of serving an individual

customer in an urban area (using “in-town” rates) is typically less than one located in a rural area (using “out-of-town” rates). Urban consumers may be served water from a large surface water impoundment or river or have their wastewater treated in large central treatment facilities. Municipal water ratepayers may not bear the cost of the surface impoundment as that cost may have been funded by federal and state taxpayers; i.e., Falls Lake.

AQUA’S RESPONSES TO SPECIFIC CUSTOMER TESTIMONY

A. Bayleaf Master

Seven of the 24 customers who testified represent communities served by the Bayleaf Master System. Most of these customers focused on rates, water quality/reliability, and customer service concerns, including communication.

With respect to Bayleaf water quality and system reliability, it should be noted that Bayleaf is a large water system made up of 123 wells, serving approximately 6,200 homes located in 102 interconnected communities. This interconnection of wells provides redundancy and helps to ensure that water quantity is sufficient throughout the system. However, each well has a different yield capacity and variable water quality, which affects customers differently depending on their physical location and proximity to certain wells. Aqua uses several techniques to improve the water quality and aesthetics of the water from these variable sources. These techniques include removal of the minerals prior to distribution through oxidation and filtration, sequestration of the minerals in their soluble form through the use of polyphosphates, tank cleaning, and regular periodic flushing of distribution systems.

Aqua has invested \$4.2 million on the installation of nine greensand filters in the Bayleaf system since 2015 and through 2019. Additional well filter installations for the Bayleaf master system are included in Aqua's Water Quality Plan. The Company completed the installation of two more greensand filters in 2020 and plans to complete the installation of an additional three filters in Bayleaf by the end of 2021, subject to project review by the Public Staff and approval by the Commission, and at an estimated cost of \$2.4 million.

Aqua's regularly updated hydraulic model of the interconnected Bayleaf water system is used for several purposes, including determination of potentially problematic wells with respect to water quality. Wells with poor quality and poor production are used sparingly---only during times of extreme drought. Aqua has re-drilled two wells to larger diameter and greater depth. The capacity of these wells is significantly greater than prior to the re-drills. One well is operational and the other well needs an iron and manganese filter due to water quality. Aqua implemented an innovative "aged water" quality control program for all of the wells in the Bayleaf area in 2019 for sequestration optimization prior to the 2019 flushing campaign. Lastly, the formation and work of the Bayleaf Advisory Group has resulted in improved customer communication and improvements in Aqua's Swiftreach notification protocols.

Seven customers from the Bayleaf service area testified at the public hearings. One was Ms. Becky Daniel, who presented information regarding Aqua's performance based on her monitoring of social media sites and on the work of the Bayleaf Advisory Group. Ms. Daniel resides in the Coachman's Trail

subdivision. Four of the remaining customers were from the Sussex subdivision, one customer was from Hunter's Landing, and the other Bayleaf customer resides in the Wood Valley/Heavenridge subdivision. None of the Sussex, Hunter's Ridge, or Wood Valley/Heavenridge customers who testified had contacted or reached out to Aqua regarding water quality or service issues in the past year. In the near term, Aqua reminds and encourages customers to contact the Company in a timely manner regarding water quality issues, and Aqua will ensure that this information is provided to its operations and engineering staff to determine the best short-term correction and long-term solution.

Please note that the "general issue" portion of this document---discussing issues of rate increases, investment responsibility, water quality and service, communications, and ratemaking safeguards---are offered in response to a significant portion of the concerns raised by customers who testified. For efficiency, Aqua requests that the readers of this report refer to them as essential supplements to the individual responses to each customer, found below.

1. **Michelle Raymond** – 12208 Staunton Court, Raleigh, NC 27613, Sussex Acres Subdivision, Bayleaf Master System (water and wastewater), *Tr. Vol. 9, pp. 24-33.*

Customer's Testimony:

Ms. Raymond, a new customer in a single person household: 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's Response:

Ms. Raymond has been a water and wastewater customer since March 2020. After the hearing, Joseph Pearce, Aqua NC Director of Operations, contacted Ms. Raymond and discussed rates and the water quality in her home. Ms. Raymond believes her bill should be lower as she is the only occupant in her home. Mr. Pearce explained to her that a large portion of the bill is due to capital expenditures, and that much of the investment decision and related costs are not based on the number of residents in the home. For instance, Ms. Raymond has a three-bedroom home and, per state regulation, the wastewater treatment plant associated with it is built for three bedrooms with two occupants per bedroom, and sixty gallons of usage per day per occupant. Mr. Pearce used the analogy of a requirement to build a minivan for six occupants, but only being used by one person. The cost of the minivan is the same regardless of whether it is used by one person or six.

Regarding the disagreeable taste, Ms. Raymond had not contacted Aqua about the water quality but was simply purchasing drinking water elsewhere. Mr. Pearce recommended that she flush her internal water system if she did not know the last time fresh water was pulled into the home, and that she annually flush her water heater. With respect to the red stains in her toilet, Mr. Pearce also offered to provide some sample cleaning products for the red staining and requested that Ms. Raymond share the results with him.

As a follow-up to Mr. Pearce's phone call to Ms. Raymond, on August 13, 2020, Mr. Pearce and an experienced Aqua Utility Technician visited

Ms. Raymond's home and provided her with mineral removal products to assist with stain removal along with a pair of nitrile gloves for her use. Ms. Raymond stated she would let Mr. Pearce know how they worked. The technician took a field sample of the water at the spigot and confirmed that the chlorine levels were within appropriate limits. Mr. Pearce additionally tasted the water from her front outside faucet and reported a chlorine odor that was slight---and not excessive---in his opinion. A water sample was obtained for inorganic chemical analysis; when the data is received in a few weeks, it will be shared. As the home may have been empty for an extended period prior to Ms. Raymond's purchase, it was again recommended that she flush her fixtures, including her hot water heater. Aqua's field technician offered Ms. Raymond guidance on flushing the water heater. A flushing credit was applied to her account for Aqua flushing at her front spigot.

2. Ms. Becky Daniel – 505 Brittany Bay, Raleigh NC, 27614, Coachman's Trail Subdivision, Bayleaf Master System (water only), *Tr. Vol. 9, pp. 46-57.*

Customer's Testimony:

Ms. Daniel, a water customer since 2006, has been tracking reliability issues that she and other Bayleaf customers have experienced since the Commission issued its Order in Aqua's last rate case (W-218, Sub 497) in December 2018. Through a combination of pre-submitted documents and her testimony at the hearing, Ms. Daniel reported that over the nineteen month period from December, 2018 until now, she is directly aware of five instances of brown water since the last rate case, four instances of milky water, and one instance of

water service cut without notice. The basis of her knowledge is a combination of her own experience and her involvement in helping her neighbors by facilitating a customer service response to their issues.

Ms. Daniel testified that Aqua has made great improvements in customer service since her last testimony in 2018. She points to prompt and thorough responses to service issues by email, phone calls, and visits from technicians. She further cites the formation of the Bayleaf Advisory Group, which has met five times, as a measure of improvement, and describes improvement in communication, including with the call centers. Overall, she submits 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 supports continued reporting on Coachman's Trail, which she believes will result in continued focus on and improvement in Bayleaf operations. Further, she endorses the conservation pilot, opining that it

.... has the potential to provide environmental and operational benefits, information about usage and the result in financial implications, and a fair method of shifting cost to disproportionately high-usage customers. The pilot provides an appropriate method of gathering data so that the rate design can be adjusted as needed prior to rolling it out to the entire service territory.

Id.

Aqua's Response:

Mr. Becker followed up with a phone call to Ms. Daniel on August 17th. He conveyed Aqua's appreciation for Ms. Daniel's assistance with communications improvements and for being a member of the Aqua Focus Group. Ms. Daniel's

diligence and her persistent participation in the process of working with Aqua and with her neighbors in the pursuit of improved service in the Bayleaf Master area has been exceptionally helpful. The Company pledges to maintain this collaboration as it pursues continuous improvement, both in the Bayleaf area and in other systems where there are similar water quality issues.

3. Carey Camp – 4812 Sandberry Lane, Raleigh, NC 27613, Wood Valley/Heavenridge Subdivision, Bayleaf Master System (water only), Tr. Vol. 9, pp. 107-119.

Customer Testimony:

A water customer of Heater Utilities and then Aqua for 23 years, collectively, Mr. Camp complained of service issues, including: periodic problems with flow and pressure (worse in summer); the absence of fire hydrant; water that smells earthy and is hard (requiring softeners); dark stains and “white water” in the summer (the latter of which yields to a thin scum after the aeration dissipates); shortened life span for his appliances; the necessity for use of special cleaners; and an unsatisfactory response from Aqua. He referred to the same testimony he gave in 2011, indicating that nothing had changed. He questioned whether Aqua had added more customers for which they did not have capacity.

Aqua’s Response:

Robert Krueger, Area Manager for the Central region, reached out to Mr. Camp to address his concerns on August 7th and the two were able to speak on Monday the 10th. Mr. Camp stated that his concerns are the following, in this order: hardness, aerated water, discolored water, and no fire hydrants.

Mr. Krueger explained that tolerance for hardness is customer-specific and that Aqua does not treat for hardness. After explaining that the aerated water and poor water quality is normally due to poor well performance, excessive demand, water line breaks or internal plumbing issues, Mr. Krueger stated that he would send a field technician to his home to perform an investigation.

Mr. Krueger also informed Mr. Camp of the following recent improvements that have been made in and around his subdivision:

1. Barton Creek Bluffs Overlook and Barton Creek Bluffs Well #1 are combined entry; the iron and manganese filter was installed in June 2020.
2. Woodvalley Well #9 – Iron and manganese filter was installed in September 2019.
3. Victory Church elevated tank was cleaned and painted in 2018.

It was also explained to Mr. Camp that there are fire hydrants in his neighborhood and Mr. Krueger provided a map showing the closest hydrant locations to his residence. Mr. Krueger exchanged contact information with Mr. Camp so that there is direct communication on the efforts to resolve his concerns.

Following Mr. Krueger's discussion with Mr. Camp, an experienced Aqua field technician visited Mr. Camp's residence on Thursday August 20, 2020 to initiate Aqua's investigation. Mr. Camp lives at the dead end of the street, which can increase mineral deposition. Aqua's technician flushed the main and the service line to the house, as well as from a spigot on the exterior of the home. Aqua additionally installed pressure gauges on a spigot and at the water meter to identify potential water pressure issues; readings will be available and Aqua will follow-up in approximately two weeks. Finally, Aqua will also issue a flushing credit

to Mr. Camp.

4. **Sheeba Jumma** – 5708 Glenfiddich Way, Raleigh, NC 27613, Sussex Acres Subdivision, Bayleaf Master System (water and wastewater), *Tr. Vol. 9, pp. 119-123.*

Customer's Testimony:

Ms. Jumma objected to the proposed rate hike, noting that the cost of water here for her family of five is about three times more expensive than her prior comparable costs in Texas. She expressed a preference for volumetric rather than flat-rate bills (especially for wastewater) and indicated that the occasional "milky" colored water resolves after 2-3 minutes. Ms. Jumma spoke positively about Aqua's practices regarding notification and flushing, specifically saying that Aqua is "...pretty good with the communications." *Tr. Vol. 9, p. 122, l. 22-23.*

Aqua's Response:

Aqua's explanation of drivers of rate increases and the difficulty of doing accurate cost comparisons among various providers, are found above and are incorporated by reference in response to Ms. Jumma's concerns about the rate increase request.

Joseph Pearce, Aqua NC Director of Operations, contacted Ms. Jumma and discussed rates, the water quality at her home, and her experience with Aqua. They discussed her prior experience as a customer of a large coastal city in Texas with comparatively low water and sewer rates. Ms. Jumma recognized that the availability of water and the requirements for differing levels of treatment can create differences in the cost of water provision and wastewater disposal.

Mr. Pearce informed Ms. Jumma of the requirements to build wastewater treatment facilities based on the number of bedrooms per home and two people per bedroom, and not based on the actual flow from a specific customer. She was also informed a significant portion of the charges are for this capital work.

With respect to water quality and Aqua's service, Ms. Jumma stated she did not have water quality concerns similar to some of the other customers but did occasionally have aerated water. Ms. Jumma stated that she had not used the Aqua website information regarding proposed flushing dates, but that the Swiftreach alerts through text and email had worked well. Mr. Pearce encouraged her to alert Aqua when she next had any water quality or service concerns.

5. Oliver Bacasse – 1704 Chatsworth Lane, Raleigh, NC 27614, Hunter's Landing Subdivision, Bayleaf Master System (water only), Tr. Vol. 9, pp. 123-135.

Customer's Testimony:

An Aqua customer since 2017, Mr. Bacasse complains of certain water quality issues: exceptionally hard water; problems with build-up in appliances which accelerate replacement requirements; milky water; and iron deposits in toilets. He purchased a whole-house softener and de-chlorinator, but objects to having had to do so. His next complaint had to do with the circumstances surrounding replacement of his meter.

He stated that he had noticed an uptick in consumption prior to the meter installation and had observed a drop of 10-15% in his registered consumption after the new meter was installed. Mr. Bacasse stated that after two and a half months

of efforts to receive information about metrology and validation, Aqua “refused” to give him the information he sought. Mr. Bacasse stated that he stopped calling customer service 12-14 months ago because of dissatisfaction with the responses.

Mr. Bacasse objected to what he believes to be an imprecise correlation between flushing and notice. Indicating that the system is flushed 2 to 3 times a year, Mr. Bacasse stated that he received the robocall alerts, but that they rarely line up with the actual flushing events.

He opposes the pilot because of the impact he believes it will have on his bill. With a current water bill of around \$60/month and approximately 7,000-9,000 gallons of consumption monthly, Mr. Bacasse calculates that his water bill would increase to approximately \$90 to \$95/month.

He complained of Aqua’s maintenance of well lots near his home, citing to a problem with a downed tree.

On examination by the Public Staff, Mr. Bacasse discussed his pressure-related problems, noting his belief that his pressure regulator was blown out by the incoming pressure from Aqua (at 145 psi, based on his measurements), which then blew out his filtration system and damaged his hot water tank.

Aqua’s Response:

After the public hearing, Joseph Pearce, Aqua NC Director of Operations, contacted Mr. Bacasse and discussed hard water, water softening, the meter replacement issue, his water usage, flushing, aerated water and communication.

A review of the conversations and of Aqua’s follow-up procedure follows:

- Hard Water. Mr. Bacasse was aware that the source of the water for his

home is groundwater and that groundwater can be hard. Mr. Bacasse chose to install a water softener to treat all of the water supplied to his home, as do many customers in areas where the source water is hard.

- Pressure Reducing Valve Failure. Aqua noted that this piece of equipment is owned and maintained by the homeowner and that they are subject to failure with age.
- Meter Issue. Mr. Bacasse moved into the home on approximately August 9, 2017. His first full month of billing was for the time period between August 23, 2017 through September 26, 2017 and indicated an average daily usage of 194 gallons per day. On October 2, 2017, his meter was replaced as part of a meter exchange project. On November 3, 2017, Mr. Bacasse contacted Aqua regarding the bill and requested that the old meter be tested. On November 29, 2017, Aqua notified Mr. Bacasse that usage on the new meter is consistent with the old meter. His October 2017 usage averaged 214 gallons per day, and his November 2017 daily average use was 194 gallons per day.

In the post-hearing conversation between Mr. Bacasse and Mr. Pearce, it was explained that old meters pulled for meter replacement are not routinely sent for calibration due to the expense of calibration for a meter which would no longer be used. Mr. Bacasse described his prior work experience with Sensus (a water meter manufacturer). Mr. Pearce believes it was made clear that the meter had not been tested and that Aqua's review of the data supports its position that the customer services group correctly determined in 2017 that a test of this meter was

not practical or reasonable.

- Pilot Program - Impact on Rates. Mr. Pearce indicated that this is a measure to conserve the limited supply of groundwater and that---under the pilot---the high users of water in Bayleaf would be contributing more for their utilization of this scarce resource.
- Flushing - The Bayleaf master system is flushed once per year, typically in the February to April timeframe. The various forms of communication---website, text, email, phone and community sign notifications---were discussed on the call. Mr. Pearce also noted the assistance some customers provided to Aqua by posting information on the Nextdoor application, which can help disseminate useful notices.
- Aerated Water - Mr. Bacasse reported an awareness of 17 complaints from his neighborhood about the aeration problem over the several weeks preceding the hearing. However, Aqua's review of records showed no calls from the Hunter's Landing subdivision regarding aerated water in the last several months. Mr. Pearce explained to Mr. Bacasse that several things can cause aeration, including a single well on the system that is having capacity issues. He explained that Aqua can take steps to minimize aeration, such as installing air release valves and throttling wells back that have capacity issues, adding also that the Company relies on customers to advise of the problem.
- General Communication - Mr. Bacasse and Mr. Pearce have shared email contact information, and it is expected that communication between this

customer and Aqua will improve.

- Lot Maintenance - With respect to the removal of a tree which had fallen on Aqua's drive, Mr. Pearce visited the well site on August 14, 2020. There is a long drive (approximately 500 feet) between the main well house and a satellite well. This area is at a lower elevation than the surrounding homes, and due to erosion issues caused by drainage from the homes that surround the wellsite, trees do fall or lean across the drive episodically. It appeared that a recent storm had caused three small trees to lean over Aqua's access drive to the satellite well. The fallen trees in this area are not visible from the public roads and would also be difficult to see from the homes in the area. It does appear that individuals are using Aqua's drive for personal reasons, walking or biking around the locked gate and ignoring posted No Trespassing signs. Aqua will post additional No Trespassing signs and remove trees as they fall.

6. **Eric Galamb – 12208 Glenlivet Way, Raleigh, NC 27613, Sussex Acres Subdivision, Bayleaf Master System (water and wastewater), Tr. Vol. 10, pp. 70-77.**

Customer's Testimony:

Mr. Galamb, a water and wastewater customer since 2017, contends that the water is eroding the sealer and sheen from the granite counters in his home and he requests a site visit to examine it. He believes Aqua is sincere in its request for conservation rates but asserts that the rate request does not support Aqua's

conservation message. He suggests that rate designs should include metered sewer to help with conservation and a 30% Base Facilities Charge for water.

Aqua's Response:

Joseph Pearce, Aqua NC Director of Operations, contacted Mr. Galamb and discussed: the regular requirements for use of granite sealant; his exceptionally low water consumption; and conservation rates. With respect to the granite counters, Mr. Galamb stated that around his bathroom faucets it appeared the granite sealant had been damaged by standing water. Mr. Pearce discussed a range of cleaning products that can potentially damage granite if used and that water may damage granite if counters are not properly treated. Mr. Pearce later shared a website with Mr. Galamb concerning granite cleaning and sealing.

Mr. Pearce discussed Mr. Galamb's exceptionally low water usage, which results from his heightened attention to water conservation. Mr. Galamb expressed concern that his low usage subsidized higher usage by other customers. They discussed the proposed use of tiered rates to ensure that the highest consumption users bear the increased capital and operational expenses of the higher usage, which the proposed conservation pilot would address. Mr. Pearce and Mr. Galamb also discussed the design requirements for wastewater treatment facilities based on bedroom counts per home, i.e., 360 gallons per day for a three-bedroom home. Mr. Galamb stated he was aware of those requirements as he was previously an employee of the North Carolina Division of Water Quality, Winston-Salem Regional Office. Mr. Pearce provided Mr. Galamb with his email address for contact concerning issues.

7. **Carol Horrocks – 12212 Glenlivet Way, Raleigh, NC 27613, Sussex Acres Subdivision, Bayleaf Master System(water and sewer), Tr. Vol. 10, pp. 99-102.**

Customer Testimony:

Ms. Horrocks, a water and wastewater customer since 2003, opposes the rate increase, particularly now that hers is a two-person home. She also noted her objection to paying for a whole-house filtration system.

Aqua's Response:

Aqua's explanation of the drivers of rate increases, and of the reasons for and treatment of iron and manganese in the source water, are explained above in this document.

Joseph Pearce, Aqua NC Director of Operations, contacted Ms. Horrocks and discussed with her and her husband proposed conservation water rates in Bayleaf and costs for sewer. Mr. and Mrs. Horrocks' primary concern was the cost of water and sewer service for "empty-nesters." As low-volume users, they would prefer a rate based on consumption. It was explained to them that utility facilities are built based on the potential use for the homes served, and not on the actual current use. Conservation rates would serve the purpose of placing the financial burden of higher use on the higher volume water users.

B. Non-Bayleaf Water Systems – Specific Responses to Customer Concerns

8. Lora Alexander – 5323 Oake Tree Drive, Gastonia, NC 28052, Wild Wing Subdivision (water only), *Tr. Vol. 9, pp. 34-46.*

Customer's Testimony:

Ms. Alexander complains that: her water is milky and is slimy in the winter; she has a black ring in the toilet bowl; she has spent a lot of money buying bottled water; and that after an investigation in 2017, the water improved but has since degraded. She recited her difficulties associated with not getting her Aqua water bills while in the hospital and thus losing service, after which, with regulatory assistance, she was able to obtain and meet the terms of a payment plan.

Aqua's Response:

Ms. Alice Greene, Aqua Customer Care Team Lead, spoke with Ms. Alexander, who has been an Aqua water customer since February, 2017, on Friday, August 7, 2020 as a follow-up to the customer hearings. Ms. Alexander repeated her reports of milky water and air in the lines but was unavailable to talk to Ms. Greene at that time, indicating she was busy. Ms. Greene then secured Ms. Alexander's agreement to have a representative visit her residence on Monday, August 10th to investigate the milky water and air in the line, subject to calling prior to arrival. On August 10, 2020, an Aqua field service representative visited the residence and ran all residuals from the outside spigot. The reports show:

- Iron (Fe) = 0.16 mg/L (sMCL = .30mg/L)
- Manganese (Mn) = 0.042 mg/L (sMCL = .05 mg/L)

- Chlorine (cl) = 0.77 mg/L,
- pH = 7 mg/L

All residuals are within the limits and the water was clear. However, at the time of the visit, Mr. Alexander drew a bottle of water and showed to the representative. There was about 1 inch of air in the top that dissipated before he could describe the problem; however, within a few seconds the air had cleared.

On August 23, 2020, Aqua's staff again visited the residence and obtained a water sample from an outside spigot. The water was clear, but was aerated, and the air dissipated rapidly. Water pulled at the entry point to the distribution system did not have aeration. It was noted that this residence is at one of the highest elevations in the water system and could be collecting air released during distribution. Aqua will determine if an air release valve may be installed either on the service or on the main to capture and release any accumulated air prior to the customer's use.

9. Evan Brown – 2524 Royal York Avenue, Charlotte, NC 28210, Park South Station Subdivision (purchased water and purchased wastewater), *Tr. Vol. 9, pp. 57-62.*

Customer's Testimony:

Mr. Brown, in a one-person household, contested the percentage of fixed charges in the rate design, expressing preference for more dependence on volumetric charges. He referred to the water quality issues concerning Total Trihalomethanes or TTHMs, a disinfection byproduct, from years ago, and

contends that the cost of flushing to remedy this issue should be borne by shareholders. Finally, he urged Aqua to accept debit or credit cards.

Aqua's Response:

Laurie Ison, Area Manager Western Region, followed up with Mr. Brown (a water and wastewater customer since December, 2015) on August 7, 2020. Mr. Brown's primary concerns during their conversation were Aqua's base customer charge and the inability to be able to pay his bill by credit card. Ms. Ison shared information regarding Speed Pay as an option for customers who wish to pay by credit card. Mr. Brown was not aware of this option and had not seen this on Aqua America's web site. Ms. Ison obtained Mr. Brown's email address and advised she would have the Speed Pay link provided to him, after which Ms. Alice Greene forwarded an email to Mr. Brown on August 10, 2020 with instructions on how to access Western Union Speed Pay from the Aqua website, including the link.

Mr. Brown told Ms. Ison that he had no service-related issues, but he re-stated his comment about flushing being done and the cost associated with that. Ms. Ison explained the flushing Aqua does is for removal of any contaminants in the water and asked Mr. Brown if he felt that was an inconvenience or just an issue because of the cost. Mr. Brown replied that it was not an inconvenience and his concern was just about the cost of flushed water being included in rates. Mr. Brown stated that he noticed that the flushing had increased following notification of a slight elevation in a "chlorine contaminant." He was not sure exactly what it was, and stated he felt there should be consideration for the cost of the water used when

establishing the rates. Mr. Brown re-stated that the rates they pay for the base customer charge were too high relative to his consumptive rate and compared it to the City of Charlotte's charges. Ms. Ison advised Mr. Brown that this was a pass through rate and Aqua charges its purchased water customers the same amount that Aqua is charged by the other utility (plus a slight gross-up for taxes and regulatory fees). This means that the base charge is Aqua's only means of recovering costs for maintenance and repairs made to the distribution and metering system. Mr. Brown seemed grateful for this explanation. Ms. Ison closed by thanking Mr. Brown for his time and his participation in the process.

10. Brad Phillips -- 84 Mitchell River Ridge, Roaring Gap, NC 28668, Olde Beau Subdivision (water and wastewater), *Tr. Vol. 9, pp. 62-71.*

Customer's Testimony:

Speaking on behalf of the Olde Beau Owners' Association ("OBOA"), which represents homeowners in a resort and golf community in Roaring Gap, Mr. Phillips opposes the rate increase as excessive, notes the utility's responsibility to provide service at reasonable rates, and asserts that a rate increase is neither fair nor socially responsible during COVID. He submits he is unaware of plans to improve water quality or reliability or to expand the water or wastewater system, asserts that routine maintenance and repair do not necessitate such a rate increase, that Aqua has been unresponsive to the community's needs for road repairs, and that the Company should improve its communications.

Aqua's Response:

Laurie Ison, Area Manager Western Region, contacted Mr. Phillips on August 7, 2020. Mr. Phillips introduced himself as a retired Vice President for Time Warner Cable and indicated that he was very familiar with the rate setting process through the NCUC. He immediately stated that they had no complaints about the water quality and no complaints about the service. He stated that Aqua was “very responsive” whenever they reported a problem and that there were two issues: 1) a leak from a ‘manhole’ across from the wastewater treatment facility, and 2) erosion and washing away of the street in front of the treatment facility.

Ms. Ison asked him if the leak he was referring to might be an old issue. Ms. Ison told Mr. Phillips that in 2017 all four pressure reducing valves (“PRVs”) in the distribution system had been replaced due to problems with leaks and failure due to age. Ms. Ison also advised that she had a field technician visit the site in person the day before her call and it was reported that there was no leak from the PRV vault; she wished to confirm that with him. Mr. Phillips stated that the information on the leak was given to him by a fellow board member responsible for roads in the community, indicated that he would be speaking with the board member later that day, and said he would clarify this information. If there was a current leak, he pledged to reply to Aqua and identify the location.

Ms. Ison then advised Mr. Phillips that the road on which they had issues with wash was Aqua’s access road to the wastewater treatment facility. Ms. Ison indicated that Aqua’s Field Technician had reported the condition of the road needing improvement to his supervisor earlier this year, and that the repair of the

road had been included in Aqua's five-year capital budget plan. Mr. Phillips was very pleased to know that it was being addressed.

Ms. Ison responded to Mr. Phillips' testimony that Aqua had not made any improvements in the subdivision by advising him that Aqua had invested nearly \$75,000 in capital improvements on the wastewater system and over \$219,000 in water improvements in the past two years. Mr. Phillips asked Ms. Ison if she would share that information with the Board at a future Board meeting, which she agreed to attend virtually. Mr. Phillips stated that both sides could do a better job of communicating. Ms. Ison told Mr. Phillips that Mr. Shannon Becker, Aqua's President, was in frequent direct communication handling individual issues previously raised regarding Olde beau with Mr. David Rouse, President of the OBOA Board, and at that Mr. Becker had met in person with Mr. Rouse at Olde Beau.

Mr. Phillips indicated that Olde Beau was comprised of two owners' associations. Mr. Rouse currently sits on the Board of the Olde Beau Golf Club and Mr. Phillips is on the Board of the Homeowners Association. Mr. Phillips recognized that there was likely information provided to the Golf Club that had not been shared with the Homeowners and asked to open a direct line of communication with Ms. Ison, which she agreed to do. Mr. Phillips and Ms. Ison exchanged phone numbers and email addresses.

Appended to this report as Exhibit 1 is an e-mail chain and correspondence from Mr. Fred Padgett, President of the Olde Beau Owner's Association ("OBOA") Board, to Shannon Becker, President of Aqua North Carolina between January 4,

2017 and November 28, 2018. Of particular note is the email from Mr. Padgett on September 27, 2017 that included the following statement:

“Our board would like to thank you for staying abreast of the projects that you covered with our group last October. We have seen a significant improvement in water line breaks this year and I'm sure the VFD pumps Aqua installed this spring are responsible for that improvement. We're also encouraged that you are continuing to make other improvements to the system.

I plan to share this year's improvements at our annual meeting on October 7th. It certainly helps the tone of the meeting when I get to tell about such a positive story.

Keep up the good work!

Fred Padgett”

11. Patrick D’Andrea – 143 Hazelton Loop, Mooresville, NC 28117, Regency Lake Subdivision, Regency Village Subdivision (water only), Tr. Vol. 9, pp. 71-78.

Customer’s Testimony:

Mr. D’Andrea (water customers since February 2009) 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 (3-4) boil water episodes; and no evidence of improvements in his neighborhood.

Aqua’s Response:

On August 10, 2020 Laurie Ison, Area Manager Western Region, received a return call from a follow-up message to the Customer hearings that was left previously by Ms. Ison. Mr. D’Andrea was accompanied on the call by his wife, Alanna, who is the account holder. The D’Andreas spoke about the concerns

raised during the hearing, including pressure drops, boil water advisories, air in the line, inconsistent chlorine smell, and stains on or in their fixtures.

Ms. Ison discussed the fact that the system was served by two wells and that the second well had been off-line for a period. The field supervisor and staff put the second well back into service in late June 2020 to compensate for new connections and increased demand in the system. Ms. Ison discussed with Mr. and Mrs. D'Andrea some possible causes and solutions for the staining they described, which was consistent with calcium build up from hard water.

Ms. Ison indicated that she would follow up with the Operator in Responsible Charge ("ORC") to discuss the fluctuating chlorine to verify the appropriate dosing and if it could be improved. Ms. Ison also explained the benefits and requirements for a minimum chlorine residual to be present at the furthest point from the well and the benefits of chlorine for disinfection. The D'Andreas commented that this made sense, as they were only a few lots down from the well, and that they could understand they may have a higher chlorine smell when adjustments were made at the well to maintain residuals throughout the distribution system.

The D'Andreas commented on the age of the pipes and indicated that they had experienced about three breaks in the past year that caused them to have boil water notices. A Boil Water Notice ("BWN") is many times confused with a Special Pressure Advisory or SPA, which is what is issued for most main breaks. While a BWN is a serious and mandatory public notification that is issued when a known health issue likely exists with the water (e.g., contamination), an SPA is issued for most main breaks, electric outages, or mechanical failures as a precautionary

measure only and to inform customers that may have higher health risk. Ms. Ison reviewed the break history, the capital budget plan, and Aqua's internal process to issue an SPA in an abundance of caution when there is a break in the system.

Ms. Ison indicated that a valve replacement project is slated to be completed in their water system in the five-year plan and that it would help minimize the number of customers affected when there was a line break. The D'Andreas expressed appreciation upon learning of this project. They asked about filters at the wells and a whole home filtration system they were looking to purchase. There is a cartridge filter on Well No. 2 and Aqua uses chlorine as a disinfectant.

The most recent inorganic compounds sample results for iron and manganese on both wells serving Regency Village were taken in August 2019 and the results were all below the sMCLs for both iron and manganese. The D'Andreas asked to confirm that the water was natural as it came out of the ground and Ms. Ison confirmed that was true, except for the chlorine that is added for disinfection purposes.

During the discussion, Ms. Ison indicated that a whole home filter was a personal choice, agreed that they are intended to remove minerals from the water, and emphasized that the maintenance of the filters was paramount to their success. The D'Andreas complimented the Aqua operator of their system and said they have had several opportunities to speak with him while he was in their neighborhood. They indicated that he was pleasant and always answered their concerns.

They requested touch-up painting on the tank near their home, and Ms. Ison assured Mr. and Ms. D'Andrea that Aqua would address that concern quickly. The conversation concluded with the parties thanking each other for the time and knowledge shared. Ms. D 'Andrea's final request was for the planting of shrubs or trees on the well lot; however, she accepted and thanked Ms. Ison for the explanation that Aqua attempts to avoid plantings on well lots due to concerns about root interference with the mains that can cause breaks.

12. Dennis Kretzinger – 7 Glen Garnock Circle, Raleigh, NC 27613, Wexford Subdivision (water and wastewater—latter shared with Durham County), *Tr. Vol. 9, pp. 78-83.*

Customer's Testimony:

Mr. Kretzinger, an Aqua customer since 1999, objects to the high rates, questioning why Aqua bought Heater if it knew---or should have known---that rate increases would be required. When asked about his preference for metered sewer rates, he was unsure that a metered rate would benefit him.

Aqua's Response:

Most of the responses to Mr. Kretzinger's concerns, about rates and investment requirements, are contained hereinabove.

Additionally, Joseph Pearce, Aqua NC Director of Operations, contacted Mr. Kretzinger concerning required system improvements for wastewater treatment since the acquisition of Heater Utilities by Aqua, and engaged in some general discussion about utility rate making. Mr. Kretzinger is a customer of Aqua for water, and Mr. Pearce clarified that he was a customer of both Durham County

and Aqua for wastewater treatment. (Durham County owns and operates the grinder system and pressure sewer system within the subdivision – he is charged an incremental fee for Durham County’s maintenance of their grinder pumps and the pressure sewer system while Aqua North Carolina owns and operates the pump station and force main that convey the wastewater to Aqua’s Hawthorne wastewater treatment plant.) Mr. Pearce then informed Mr. Kretzinger that significant upgrades for biological nutrient removal at Aqua’s Hawthorne Wastewater Treatment Plant had been necessary as it discharges to the tributary of Falls Lake. Mr. Kretzinger recommended that Aqua share that type of information with their customers.

With respect to rates, Mr. Kretzinger primarily commented on his perception of injustice in rate setting. He stated that the utility simply made a request for an increase and the Commission granted some portion of the request. Mr. Pearce informed Mr. Kretzinger of the significant amount of supporting documentation required to justify Aqua’s operation and capital expenses, as well as the Public Staff’s and Commission’s rigorous review. Mr. Pearce also informed Mr. Kretzinger that the governmental justification for recovery of operation and capital expenses in cities and counties is not reviewed by either the Public Staff or the North Carolina Utilities Commission. Based on his prior governmental experience, Mr. Pearce advised that most rate increases are included as part of their annual budget without significant comment from the customers. Finally, Mr. Kretzinger was also asked if he had any issues with Aqua water or sewer service, and he stated he had none.

13. Dennis Gershowitz – 258 Highlands Drive, Hampstead, NC 28443, Castle Bay Subdivision (water and wastewater customer), *Tr. Vol. 9, pp. 83-88.*

Customer's Testimony:

Mr. Gershowitz stated that he was a customer of Aqua since 2005 and has been Vice-President of the Homeowners Association ("HOA") for 10 years. There are 300 homes in the Castle Bay subdivision, which is located near the coast in Pender County. Noting that the grinder pumps are maintained by the homeowners in his community and not the utility, he questions what Aqua is doing to earn the charges he pays, except for processing sewer, and asks for an investigation to determine that their rates are equitable.

Aqua's Response:

Mr. Gershowitz's questions about the drivers of rate increases, the necessity for investment, and the rigorous regulatory process are addressed in Aqua's general comments.

Joel Mingus, Area Manager for the Coastal Region, contacted Mr. Gershowitz and thanked him for his participation and input during the customer hearing. Asked if he had any further questions or anything he would like to discuss, Mr. Gershowitz broached the homeowner's responsibility for grinder pumps, noting that frustration lingers in his community about them. He also observed that volumetric rates are probably better for some customers and perhaps not for others. He stated that he understands the need for cost recovery, but that for people of limited means and people on fixed incomes, it was necessary

to watch costs. Additionally, he praised Aqua for its water quality control.

Grinder pumps expenses are handled differently among Aqua wastewater systems, varying by the asset purchase agreements. The topic has also led to episodic discussions with environmental regulators regarding operation and maintenance of these grinder pump systems. Aqua continues to attempt to resolve the issues, and remains firm in its view that it neither owns nor is responsible for the grinder pumps at Castle Bay.

Mr. Mingus reviewed the basis of Aqua's position that the homeowners own the grinder pumps, and not Aqua. This has been Aqua's position since its 2004 Asset Purchase Agreement (which specifically excluded the grinder pumps from Aqua's ownership) and in its 2005 Certificate of Convenience and Necessity docket, W-218 Sub 204.

As a follow-up to the conversation, Mr. Gershowitz sent a courteous note of thanks to Aqua along with some correspondence concerning grinder pumps. Commissioner Brown-Bland requested at Tr. Vol. 9, page 107, lines 4 – 9 that the Company and the Public Staff provide further documentation concerning ownership of the grinder pumps, including any reference to same in Commission dockets or filings. In response, Aqua attaches as Exhibit 2 the correspondence provided by Mr. Gershowitz.

Further, in the Commission's Order of June 1, 2005 in Docket No. W-218, Sub 204, it made the following Finding of Fact # 4 (at page 2):

4. The water service facilities consist of wells, a pressure tank, chemical addition, and a distribution system. The sewer service facilities consist of manholes, collection lines, pump stations, force mains, and a sewage treatment plant with disposal by spray irrigation.

Notably absent from the description of facilities is any reference to the grinder pumps. The Evidence and Conclusions for Finding of Fact # 4 (at page 4) state, in pertinent part:

Mr. Phillips explained how the grinder pumps work, and that the homeowners own and are, therefore, responsible for the grinder pumps, much like a hot water heater.

This was based on Aqua witness Neil Phillips' testimony in that case at pp. 35-36 (beginning at line 11 on p. 35) that Aqua did not own and had no responsibility for the grinder pumps.

<https://starw1.ncuc.net/NCUC/ViewFile.aspx?Id=46884d32-1f04-4f9b-bedc-3d4ebbf02668>

Further, the Asset Purchase Agreement for the Acquisition of Castle Bay Utilities referred to grinder pumps as "excluded assets."

<https://starw1.ncuc.net/NCUC/ViewFile.aspx?Id=b9e7ac73-e376-4312-9815-fdd41b26beb1>

14. Michael Thompson – 2524 Emerald Woods Drive, Wake Forest, NC 27587, Emerald Woods Subdivision (water only), *Tr. Vol. 9, pp. 89-104.*

Customer's Testimony:

An Aqua water customer since late 2017, Mr. Thompson complained of sediment in his lines and "blackish water," which he discussed with the North Carolina Division of Environmental Quality ("DEQ") and determined to be excessive manganese. He was advised by Aqua to not use chlorine cleaning products as it takes minerals out of suspension, and he also filters all drinking water.

Mr. Thompson complained of the uncertainty about flushing activities, and reported that he ended up having to flush all three days of the projected flushing period instead of just one and had to use 20 gallons to do so each time. Mr. Thompson complained of being required to replace a spigot because it was backed up with sediment. He spends about \$50 per month on a home water filter.

Aqua's Response:

Aqua's Environmental Compliance Director, Amanda Berger, left a voicemail for with Mr. Thompson on the morning of August 6, 2020. Ms. Berger attempted to contact Mr. Thompson via phone again on Monday August 10, 2020 with no answer. Ms. Berger additionally followed-up with an email on August 12, 2020, thanking Mr. Thomas for his participation in the hearings and inquiring as to whether he would like to discuss water quality. Ms. Berger included her direct contact information. No response has been received from Mr. Thompson at the time of this drafting.

Emerald Woods is a two well system and both wells are included as a Group 3 well sites since either iron or manganese exceeds the sMCL on one or the other wells. Sequestration is currently installed to help address the low levels of iron and manganese on this system. However, Operations will additionally evaluate the ability to install a Harmsco cartridge filter on this system to further assist in improving water quality.

15. Husher Edmonds – 1528 Grassy Branch Road, Fayetteville, NC 28304, Farrington Subdivision (water only), *Tr. Vol. 9, pp. 104-107.*

Customer's Testimony:

Mr. Edmonds, a water customer since July, 1996, had no issues, and wished only to say that he hoped that the rates will be maintained at the present level.

Aqua's Response:

Responses to Mr. Edmonds concerns about rates are contained hereinabove in the general portion of the report.

Joel Mingus, Area Manager for the Coastal region, tried to contact Mr. Edmonds on several occasions (August 7th, 10th, and 11th) He ultimately left a message on Mr. Edmonds' voicemail, stating that Aqua appreciated Mr. Edmonds' participation and providing the Hampstead office number, for questions or assistance.

16.Cindy Rosado – 2717 Crest Ridge Court, Fayetteville, NC 28306, Mariner's Pointe Subdivision, *Tr. Vol. 10, pp. 19-29.*

Customer's Testimony:

A water customer since 2008, Ms. Rosado was confused by various provisions of the rate case notice. Further, her efforts to contact and receive call-backs from supervisors at the call center number were unsuccessful, either because her calls were not returned or because the person who called her back was unable to answer her questions. She had lost confidence in the company's ability to answer her questions. Further, she was confused between proposed and temporary rates, and about how the conservation pilot community was selected and whether it represented total customer demographics. Her specific

service complaint includes low water pressure, starting from the time she first started service; however, she acknowledged that tests showed the pressure within adequate ranges. Ms. Rosado's usage ranges from about 12,300 gallons to 30,000 gallons per month, when irrigating.

Aqua's Response:

The following is a recap of State President Shannon Becker's conversation with Ms. Rosado, which took place following the August hearing:

- **Customer Notices & Temporary Rates** – Ms. Rosado questioned why the March customer notice (based on Aqua's rate increase proposed in the initial application) was different than the second notice, which included the temporary rates or rates under bond. Ms. Rosado did not know why the notices were different and felt the customer notice was confusing, as she could not locate any information in the filings on the NCUC website that supported these "temporary" rates. Mr. Becker explained that she was correct in that there is not a specific schedule on file supporting these temporary rates. The rates are authorized by statute to be put in place on a temporary basis, after the expiration of a specified amount of time (approximately seven months after the Application is filed) and prior to the issuance of a final order in the case. The temporary rates cannot exceed the initially publicized/noticed rates. These temporary rates are generally, if not always, less than initially requested rates to minimize the risk of over-charging its customers and having to issue refunds. Mr. Becker further explained that the format of and the information in the customer notice is prepared by the Company, reviewed by the Public Staff,

and approved by the NCUC. They discussed the balance between making the notice complete, informative, and succinct, while also answering a range of questions that the variety of customers might have.

- **Rate Increase Percentages** – Mr. Becker discussed the proposed rate increase for “All Brookwood/LaGrange Service Areas” (proposed at 21.3%) vs. the proposed rate increase for the service areas identified as “except as listed below” (proposed at 5.6% and 3.2%), which are for purchased water communities. He described the difference between the general rate entity increase and the purchased water systems specifically identified, explaining that the specifically identified communities were served via purchased water, whose volumetric charge is determined by the specific entity from which Aqua purchased their water. Only the Base Facilities Charge for these communities is affected within an Aqua rate case; therefore, the percentage increase differs from the non-purchased water customers.

- **Rate Entities** – Ms. Rosado was concerned that her newer community was paying for the infrastructure needs of older communities. Mr. Becker described the benefits of consolidated rates and that systems with similar/homogenous cost structures were included within a rate entity with other like systems/communities to provide rate consistency and protection. He explained it like a form of rate protection by sharing costs across a bigger population and avoiding the burden of having to pay for extraordinary costs on a small population of customers. Whether a community was built in 1950 or 2020 – eventually all infrastructure supporting that system will need to be

replaced and incurs similar costs across its lifetime.

- **Water Pressure** – Ms. Rosado and her neighbors experience reduced water pressure in the mornings during the summer. This is likely coming from the demand being placed on the systems from water use as people prepare for work ,and is amplified by summer irrigation. She understood and was personally able to manage better by timing her usage patterns, recognizing that the issue has not been as acute since the pandemic has driven many people to work at home. The subject of installing a home booster pump as an assist to the pressure for customers who desire a higher water pressure was discussed.

- **PWC Sewer & Water Service** – Mr. Becker and Ms. Rosado discussed the dual providers in her area, in that customers are variously served by PWC and by Aqua. He explained that the division of customers among providers was not a function of customers electing their provider.

The conversation was productive, and Ms. Rosado complimented Aqua customer representatives for their demeanor and their efforts to help. Mr. Becker provided his number for her to follow-up should she have future questions or problems.

17. Eric Thornton – 8923 Sedgley Drive, Wilmington, NC 28412, The Cape Subdivision (water and wastewater), *Tr. Vol. 10, pp. 29-35.*

Customer's Testimony:

Mr. Thornton expressed concern that his rates will increase if the pilot program is implemented. He indicated that he pays a total of approximately \$300

per year currently and his bill would increase by approximately \$125 annually if the conservation rate pilot is approved. Mr. Thornton complains of the water quality issues associated with Total Trihalomethanes ("TTHMs"). For ten of the last thirteen quarters he has received notices that the water provided by Aqua has exceeded the Environmental Protection Agency ("EPA") limits for this contaminant, and each time this occurs, he receives a notice that states that "Aqua is currently adding new water sources and exploring additional treatment options to improve water quality." However, he testified that he had never been notified of any improvement plans and can find none publicly available on the NCDEQ website. Mr. Thornton stated that in order to protect his family from excess levels of TTHMs, he has installed several activated carbon filters which cost approximately \$460 per year to maintain. He requested that the Commission take this "excessive customer-borne cost and lack of action in response to multiple violations" into consideration when approving rates.

Aqua's Response:

Amanda Berger, Aqua's Environmental Compliance Director, spoke with Mr. Thornton about the TTHM situation, which reflects a primary water quality standard. TTHM issues are a chlorine disinfection by-product and can be indicative of saltwater intrusion into an aquifer. Out of concern for family health and with the knowledge of TTHM violations, Mr. Thornton installed additional filtration on his home.

Aqua is concerned about the TTHM violations in this system and has drilled a new well (on-line by September 2020), is installing 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. Ms. Berger also reviewed Aqua's PFAS⁵ initiative, the GenX sampling protocol, and other measures with Mr. Thornton. He appreciated the information and the Company's proactive sampling for PFAS and GenX. Mr. Thornton seemed satisfied that Aqua is addressing the issues within his system, but recommended that Aqua do a better job of informing its customers about these issues.

With respect to rates and water usage, Mr. Thornton, who uses Aqua water for home drinking and irrigation, is a large consumer of water. His annual household usage for the last twelve months through July, 2020 was about 227,000 gallons that resulted in a water usage charge of \$347.46 ($\1.53×227); the current Fairways rate per 1000 gallons is \$1.53. Mr. Thornton's usage charge calculated using the same twelve month history and upon applying Aqua's proposed tiered conservation pilot rates, would be \$498.62. Mr. Thornton's annual bill would increase by approximately \$150 and his average cost per 1000 gallons of water using the pilot rates would be \$2.20. Under the proposed pilot conservation program rates, Mr. Thornton would pay as little as \$0.71 per 1000 gallons for his winter usage when they used as little as 3,600 gallons per months and as high as \$2.70 per 1000 gallons during his summer usage periods when he used 41,800 gallons. Aqua notes that the central purpose of the pilot program is to more

⁵ Perfluorooctanoic Acid.

accurately and fairly allocate the impacts and costs associated with higher levels of consumption, and that customers of The Cape currently pay substantially lower rates for water than any other customers in the Aqua network.

18. Kristen Pavlich – 839 Colonial Ridge Drive, Pittsboro, NC 27312, Chapel Ridge Subdivision (water and wastewater), *Tr. Vol. 10, pp. 35-47.*

Customer's Testimony:

Ms. Pavlich, a water customer for three months, testified that she knew of water quality issues in the source supply from Pittsboro; that the water was "horrible;" and that she installed a Reverse Osmosis ("RO") filter at a cost of \$1500. She objected to having to pay extra to clean water that she purchases.

Ms. Pavlich also raised questions about why her usage level was exactly the same two months in a row (25,100 gallons per month at a cost of \$408.86). She noted that she had not contacted Aqua prior to the public hearing; however, the family did turn off their irrigation system to reduce their water bill.

Aqua's Response:

Amanda Berger, Aqua's Environmental Compliance Director, spoke with Ms. Pavlich and explained that Aqua provides water purchased from the Town of Pittsboro, and that the rate for that water is \$13.69 per 1000 gallons, one of the highest purchased water rates in the Aqua NC system. Ms. Berger also explained that since this is a purchased water system, Aqua directly passes through the Pittsboro charges to its customers, with a small adjustment for taxes and regulatory fees.

Aqua investigated the back-to-back identical bills for the Pavlich's residence. The meters in this system are Radio Frequency ("RF") meters and upon review of the read detail, the identical usage for the two months was verified as accurate; the usage was coincidentally the same for these two months.

Further discussion included Ms. Pavlich's water quality testing performed by a third-party home filter vendor using a field testing kit. Aqua does not recommend making filtration choices based on uncertified test results.

Ms. Berger also discussed Aqua's conversations with Pittsboro about water quality, rates, and disinfection by-products. Lastly, they discussed misinformation present on social media. Ms. Pavlich thanked Ms. Berger for the information and the customer attention. She urged Aqua to build further customer trust by updating customers on actions, providing results, and addressing other relevant subjects.

19. Alison Squires – 108 Samantha Drive, Garner, NC 27529, South Hills Subdivision (water only), *Tr. Vol. 10, pp. 47-51.*

Customer's Testimony:

An Aqua customer at this location since March, 2019, Ms. Squires was an Aqua customer at a prior address for 12 years. She had no service or water quality complaints, but objected to the rate increase request, specifically also targeting the periodic increases due to WSIC and SSIC filings.

Aqua's Response:

Most of the responses to Ms. Squires' concerns, about rates and investment requirements, are contained hereinabove.

Ms. Amanda Berger, Aqua's Environmental Compliance Director, spoke with Ms. Squires to explain that Aqua has invested significant amounts of money in North Carolina. Ms. Squires indicated she understood Aqua's position, but she remains opposed to the rate increase.

20. James McReynolds – 1816 W. Cottengin Drive, Clayton, NC 27527, Cottonfield Village Subdivision (water and wastewater), Tr. Vol. 10, pp. 51-59.

Customer's Testimony:

Mr. McReynolds, an Aqua customer since 2019, lives in the Flowers Plantation and complained of the price and the quality of his water, arguing that he should receive a decrease instead of an increase. His charges for the water Aqua purchases from Johnston County are approximately \$90/month, and he objects to the chemical taste it exhibits. He also asserted that it would be fairer for him to have a metered sewer bill as his household is small.

Aqua's Response:

Joseph Pearce, Aqua's Director of Operations, contacted Mr. McReynolds on August 7, 2020 and discussed the source of his water, which Mr. Pearce explained was purchased water from Johnston County Utilities. Additionally, Mr. Reynolds inquired as to why the water tasted bad, and indicated it could be characterized as a chlorine taste. Mr. Pearce verified that was likely the case as chlorine is added by Johnston County Utilities to provide disinfection for this purchased water system.

With respect to Mr. McReynolds' concern about wastewater rates, Mr. Pearce discussed the Neuse Colony wastewater treatment plant and the significant capital costs of the plant. Mr. Pearce explained that the size of the plant, and thus the nature of the investment, is based upon the number of bedrooms and not on the number of people living in the residence. Mr. McReynolds did not state any complaints regarding the sewer service provided to him by Aqua during either his testimony or during the telephone conversation.

21. Charles Avery – 240 Wrightsboro Road, Fayetteville, NC 28304, Wrightsboro Subdivision (water only), *Tr. Vol. 10, pp. 59-63.*

Customer's Testimony:

Mr. Avery, a water customer since 2015, actually lives elsewhere, but owns this house and worries about the price increase. He participated in the hearing primarily to listen.

Aqua's Response:

Most of the responses to Mr. Avery's concerns about rates are contained hereinabove.

Ms. Alice Greene, Aqua Customer Care Team Lead, spoke with Mr. Avery on Friday, August 7, 2020, advising him that her telephone call was a follow-up to his testimony during the customer hearings held on Monday, August 3, 2020. She thanked him for his participation and advised him that a customer may request the Company to turn off the water and "final" the account to avoid the monthly base facility charge. If the account remains "final" (inactive) for nine months or more, he would not be charged the monthly base facility charge; however, when he

requested the service to be re-established, he would be charged a turn-on fee of \$20.00. Ms. Greene further explained that if he requested the service to be re-established prior to nine months, the Company would back-bill for the monthly base facility charges for the months the service was off. Mr. Avery stated he appreciated the information, but that he would like to keep the account active due to intermittent use.

22. Albert Meyers – 389 Flat Rock Road, Henrico, NC 27842, Timberline Shores Subdivision (water only), *Tr. Vol. 10, pp. 63-70.*

Customer's Testimony:

Mr. Meyers, an Aqua customer since 2012, owns a vacation home in Henrico, and testified in praise of Aqua's professional support in helping locate and repair a recent leak. Mr. Meyers asserted that Aqua had a professional group of people and should be granted whatever rate increase it sought. He specifically noted the cost associated with maintaining a water supply up to current standards, and related that phenomenon to the significant appreciation in property values in his neighborhood.

Aqua's Response:

Robert Krueger, Area Manager for Aqua's Central Region, reached out to Mr. Meyers to follow up after the customer hearings, but was unable to reach him. Aqua appreciates Mr. Meyers' supportive comments.

23. Lachia Moreland – 2405 Topton Court, Willow Springs, NC 27592, Myatt Mill Subdivision (water only), *Tr. Vol. 10, pp. 79-86.*

Customer's Testimony:

As water customers of Aqua's since October, 2007, the Morelands had their water quality tested ten years ago, when starting their family (now a family of six), and purchased a \$2,000 water filter system. Due to the inability to maintain the filter system, they were required to disconnect it about five or six years ago and they now purchase bottled water at a cost of \$40-\$50 per month. Ms. Moreland stated they have replaced shower heads every four to six months because of an "orangey-yellow" build-up. Ms. Moreland received information related to the iron and manganese filter Aqua installed in 2016, but testified she has not noticed any improvement.

Aqua's Response:

Amanda Berger, Aqua's Environmental Compliance Director, spoke with Ms. Moreland, who is primarily concerned about rates. Ms. Berger explained to her how rate increases are proposed by regulated utilities and the thorough regulatory review process that provides rigorous examination by the consumer advocates, sometimes other intervenors, and the Utilities Commission. They also discussed the differences in rates between regulated companies, like Aqua, and municipalities or other governmental providers. Ms. Moreland was appreciative and in return advised that Aqua should use layman's terms when describing rates, as the notices that customers receive are not well understood.

Ms. Berger also discussed water quality with Ms. Moreland, committing to provide an inorganic chemical ("IOC") analysis sampling on her water and to call her back once the results are received. Further discussion included information about the importance of regular hot water tank maintenance (flushing), as well as

the facts that (a) iron can cause staining on plumbing fixtures; and (b) a red or pink biofilm⁶ commonly forms around water fixtures in damp locations, such as those found in bathrooms and kitchens. The film can be removed through scrubbing, using a mixture of baking soda and a tablespoon of liquid dish soap.

The IOC sample was taken at her home on August 10th and the results were received August 24, 2020. Ms. Berger will report to Ms. Moreland that the results were very good: they were non-detect for everything except Sodium (15.4 mg/L, which is low) and Sulfate (7.9 mg/L, which is very low).

Ms. Berger also explained there is now a manganese dioxide filter on the well serving the Moreland's subdivision. Based upon the conversation with Ms. Berger and the actions taken by Aqua since 2010, Ms. Moreland felt utilizing bottled water was unnecessary.

24. Wendy Stevens - 2704 Stageline Drive, Raleigh, NC 27603, Stagecoach Subdivision (water only), *Tr. Vol. 10, pp. 87-96.*

Customer's Testimony:

Ms. Stevens testified that she did not receive notice from Aqua of the public hearings, but rather learned of them in her workplace, which is the Attorney General's Office. An Aqua water customer for the past twelve (12) years, her usage for the past year averages just under 2,500 gallons per month.

Ms. Stevens complains of a strong and persistent bleach smell in her water; submits that Aqua should be more clear on the uses to which revenues are put; does not understand why she received a refund of her deposit and objects to not

⁶ Called *serratia marcescens*

having been notified about it; objects to the fact that her Base Facilities Charge is usually higher than her volumetric charges; has been required to purchase various water filtration devices as well as bottled water; found the process for the meeting confusing; and reports her very negative view of Aqua and of its water quality. She has not reached out to Aqua with any of these complaints, but her daughter talked to Aqua workers at a local store about the bleach taste. She reported that her daughter relayed to her the information that the Aqua employees said nothing can be done.

Finally, she asserted that she did not receive notice in the mail of the public hearing, noting that her son---who neither lives with her nor is an account holder with Aqua---does receive mail from Aqua at that address. Ms. Stevens indicated she would be agreeable to being contacted by an Aqua representative to follow up on her concerns.

Aqua's Response:

Robert Krueger, Aqua's Area Manager for the Central Region, reached out to Ms. Stevens to address her concerns, calling first on August 7th and eventually connecting on August 10th. Mr. Krueger addressed Ms. Stevens' water quality concern, which was the chlorine smell and taste. He committed to performing a site investigation to verify that the chlorine dosing is appropriate for the system demand. The site visit was conducted on Monday August 17th. The community well that serves Ms. Stevens was found to be operating properly. Ms. Stevens' water service lines and internal plumbing were also flushed while Aqua staff were onsite. Mr. Krueger verified Ms. Stevens address (2704 Stageline Drive, Raleigh

NC 27603) and phone number to confirm Aqua's contact records and exchanged contact information with Ms. Stevens. A flushing credit will be issued.

Aqua cannot explain Ms. Stevens failure to receive notice. Aqua confirmed that Ms. Stevens' name and correct mailing address were on the mailing lists provided to the printer for both the initial notices of the rate increase and the earlier-scheduled public hearings, which were sent by United States Postal Service ("USPS"), Standard Pre-sort on March 3d, 4th, and 5th, 2020 as well as the notices of the August 3, 2020 "virtual" public hearings and of the temporary rates under bond which were sent on July 10, 2020 by USPS, First Class Mail. Aqua has no record of billing or other information being sent to anyone else at that address, other than Ms. Stevens. Further, no mail addressed to Ms. Stevens was returned to Aqua, from the USPS, as undeliverable.

CONCLUSION

Aqua appreciates and takes seriously this opportunity to respond to the comments and concerns expressed by the Company's customers at the rate case public hearings. While customers may not see visible signs of any improvements or repairs being made to their specific water and wastewater systems, Aqua notes that investments made by the Company in its water and wastewater utility systems throughout the state of North Carolina are not always obvious to customers, given the nature of some of the work. Additionally, should there be a need for major investment for upgrades or repairs---as there will inevitably be for every system---Aqua has an obligation arising from its status as a regulated public utility to make necessary capital investments to ensure that consumers receive reliable and

adequate utility service. It is worth noting that much work has been done to address water quality issues and this work continues at an accelerated pace, driven and supported by Aqua's Water Quality Plan.

Respectfully submitted, this the 24th day of August 2020.

SANFORD LAW OFFICE, PLLC

Electronically Submitted

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ATTORNEYS FOR AQUA NORTH CAROLINA, INC.

VERIFICATION

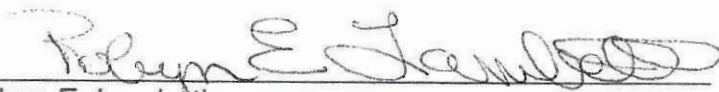
Shannon V. Becker, being duly sworn, deposes and says:

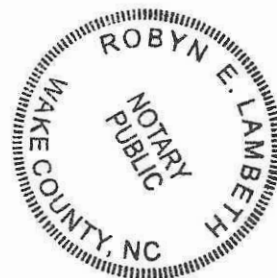
That he is the President of Aqua North Carolina, Inc.; that he is familiar with the facts set out in this **REPORT ON CUSTOMER COMMENTS FROM VIRTUAL PUBLIC HEARINGS HELD ON AUGUST 3, 2020**, filed in Docket No. W-218, Sub 526; that he has read the foregoing Report and knows the contents thereof; and that the same is true of his knowledge except as to those matters stated therein on information and belief, and as to those he believes them to be true.


Shannon V. Becker

Sworn to and subscribed before me this

the 24th day of August 2020.


Robyn E. Lambeth
Notary Public



My Commission Expires: May 13, 2021

I signed this notarial certificate on August 24, 2020, according to the emergency video notarization requirements contained in G.S. 10B-25.

Notary Public location during video notarization: Wake County
Stated physical location of principal video notarization: Wake County

From: David T. Rouse <[REDACTED]>
Sent: Wednesday, November 28, 2018 11:17 AM
To: Becker, Shannon V <SVBecker@aquaaamerica.com>
Subject: RE: Aqua Olde Beau update

Thank you,

David



David T. Rouse – [REDACTED]

e-mail: [REDACTED] Thoughts: Life is full of trouble. But in the hands of a loving God, our suffering is being used for eternal purposes. The only thing between you and your destiny is the thing you are busy avoiding. Success is a journey, not a destination - The morning is the rudder of our day—how we begin steers our course throughout. - Each of us will face a mountain at some time or another. In these times, rather than moving a mountain for us, God may provide a shovel. B. I. B. L. E. simply means: Basic Instructions Before Leaving Earth! "If God doesn't remove your obstacles, He will help you find a way through them". - "God doesn't exist for us, but we exist for Him." - "God has a plan to get us through trouble!", "The road God provides is never a dead end; be patient and see the beauty he delivers". - "Our trials make us stronger believers in Him!" - "My list of blessings is much longer than my list of complaints!" - "Five generation rule" - The way you bring up your child impacts four generations

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From: Becker, Shannon V <SVBecker@aquaaamerica.com>
Sent: Wednesday, November 28, 2018 11:10 AM
To: David Rouse [REDACTED]
Cc: Ison, Laurie T <LTison@aquaaamerica.com>; McDaniel, David T <DTMcDaniel@aquaaamerica.com>
Subject: RE: Aqua Olde Beau update

David,

Our records show 152 connections.

From: David Rouse [REDACTED]
Sent: Wednesday, November 28, 2018 10:07 AM
To: Becker, Shannon V <SVBecker@aquaaamerica.com>
Cc: Ison, Laurie T <LTison@aquaaamerica.com>; McDaniel, David T <DTMcDaniel@aquaaamerica.com>
Subject: Re: Aqua Olde Beau update

Shannon,
Do you know the number of connections currently?

David T. Rouse

Rouse Enterprises,

e-mail: [REDACTED]

[REDACTED]

Ph: [REDACTED]

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On Nov 27, 2018, at 6:17 PM, Becker, Shannon V <SVBecker@aquaaamerica.com> wrote:

David,

The new tank being installed is a 5400 gallon hydrotank; the existing tank in your system is a 7800 gallon hydrotank. Fire service would require an elevated tank with a minimum size of 75,000 gallons, which is only required if your system exceeds 299 connections.

Shannon

From: David T. Rouse [REDACTED]
Sent: Tuesday, November 27, 2018 6:00 PM
To: Becker, Shannon V <SVBecker@aquaaamerica.com>
Cc: Ison, Laurie T <LTison@aquaaamerica.com>; McDaniel, David T <DTMcDaniel@aquaaamerica.com>
Subject: RE: Aqua Olde Beau update

Shannon,

Thank you for your response, I was not aware of this situation.

Question, once the new tank is installed will that make them workable?

David

<image001.png>



e-mail: [REDACTED] *Thoughts: Life is full of trouble. But in the hands of a loving God, our suffering is being used for eternal purposes. The only thing between you and your destiny is the thing you are busy avoiding. Success is a journey, not a destination - The morning is the rudder of our day—how we begin steers our course throughout- Each of us will face a mountain at some time or another. In these times, rather than moving a mountain for us, God may provide a shovel, B. I. B. L. E. simply means: Basic Instructions Before Leaving Earth! "If God doesn't remove your obstacles, He will help you find a way through them". - "God doesn't exist for us, but we exist for Him."- "God has a plan to get us through trouble!", "The road God provides is never a dead end; be patient and see the beauty he delivers". — "Our trials make us stronger believers in Him!" - ,My list of blessings is much longer than my list of complaints! - "Five generation rule" -The way you bring up your child impacts four generations*

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From: Becker, Shannon V <SVBecker@aquaaamerica.com>
Sent: Tuesday, November 27, 2018 1:32 PM
To: [REDACTED]
Cc: Ison, Laurie T <LTison@aquaaamerica.com>; McDaniel, David T <DTMcDaniel@aquaaamerica.com>
Subject: RE: Aqua Olde Beau update

Hi David,

I hope you had a good Thanksgiving!

The hydrants in the Olde Beau system are designated as flushing hydrants and are in working order. Flushing hydrants are installed solely for distribution system flushing. These flushing hydrants are painted black because this color alerts firefighters that the system cannot be relied upon to provide fire service. Also, please note that the water system design is incapable of providing fire service due to the absence of an elevated storage tank. Utilizing these flushing hydrants for fire service may collapse the system and leave the development without water service.

I hope this helps clarify the questions you are receiving.

Thanks,
Shannon

From: David T. Rouse [REDACTED]
Sent: Monday, November 26, 2018 5:51 PM
To: Becker, Shannon V <SVBecker@aquaaamerica.com>
Cc: Ison, Laurie T <LTison@aquaaamerica.com>; McDaniel, David T <DTMcDaniel@aquaaamerica.com>
Subject: RE: Aqua Olde Beau update

Shannon,
I hope you had a good Thanksgiving and will have a great Christmas.

Following-up to my question below, is there any update on the hydrants?

Thank you,

<image002.jpg> [REDACTED]

Reflections: The only thing between you and your destiny is the thing you are busy avoiding. Success is a journey, not a destination - "He is no fool who gives what he cannot keep to gain what he cannot lose" - When our lives do not go as we planned, God gives us the opportunity to reach within ourselves and find the hidden "something" to rise above that difficulty - Water your faith seed - Bring your faith to work with you - He tests our commitment - 'My grace is all you

need. My power works best in weakness.- The morning is the rudder of our day—how we begin steers our course throughout - God loves to use people who are imperfect to do impossible things -Just remember, He says, you'll go nowhere tomorrow that I haven't already been.- One is not defined by what others say about them, but one is defined by what God says .“Five generation rule” -The way you bring up your child impacts four generations. Each of us will face a mountain at some time or another. In these times, rather than moving the mountain for us, God may provide a shovel. If God doesn't remove your obstacles, He will help you find a way through them. God has a plan to get us through trouble! Affliction acts as spiritual fertilizer on a believer's faith- By means of affliction, God molds His children into comfort carriers. When facing enormous odds God somehow gets us through the storm! Godly repentance is an “about face”. Mustard seeds have to be planted!

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From: David T. Rouse [REDACTED]
Sent: Tuesday, October 9, 2018 12:08 PM
To: 'Becker, Shannon V' <SVBecker@aquaamerica.com>
Cc: 'Ison, Laurie T' <LTison@aquaamerica.com>; 'McDaniel, David T' <DTMcDaniel@aquaamerica.com>
Subject: RE: Aqua Olde Beau update

Shannon,
I have one more question.

Would you please give me an update on the Fire Hydrants within Olde Beau. The Board is getting reports of high insurance rates from property owners because the hydrants “do not work”. Is this correct, if so what plans does Aqua have to get the hydrants in working condition?

Thank you,

<image002.jpg> [REDACTED]

Reflections: The only thing between you and your destiny is the thing you are busy avoiding. Success is a journey, not a destination - “He is no fool who gives what he cannot keep to gain what he cannot lose” - When our lives do not go as we planned, God gives us the opportunity to reach within ourselves and find the hidden “something” to rise above that difficulty - Water your faith seed – Bring your faith to work with you – He tests our commitment - “My grace is all you need. My power works best in weakness.- The morning is the rudder of our day—how we begin steers our course throughout - God loves to use people who are imperfect to do impossible things -Just remember, He says, you'll go nowhere tomorrow that I haven't already been.- One is not defined by what others say about them, but one is defined by what God says .“Five generation rule” -The way you bring up your child impacts four generations. Each of us will face a mountain at some time or another. In these times, rather than moving the mountain for us, God may provide a shovel. If God doesn't remove your obstacles, He will help you find a way through them. God has a plan to get us through trouble! Affliction acts as spiritual fertilizer on a believer's faith- By means of affliction, God molds His children into comfort carriers. When facing enormous odds God somehow gets us through the storm! Godly repentance is an “about face”. Mustard seeds have to be planted!

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it. If you have received this message in error please notify the sender immediately and permanently delete the copy you received without making any copies.

From: Becker, Shannon V <SVBecker@aquaaamerica.com>
Sent: Friday, September 28, 2018 4:43 PM
To: [REDACTED]
Cc: Ison, Laurie T <LTison@aquaaamerica.com>; McDaniel, David T <DTMcDaniel@aquaaamerica.com>
Subject: RE: Aqua Olde Beau update

Dave,

I hope you are doing well and your elevation allowed you to avoid any damage from Hurricane Florence. We own and operate 750 water and wastewater systems in 51 counties here in NC, many of which are on the Coast or in other areas affected by the heavy rains. That said, although we did experience power outages in several of our systems, we were very well prepared. Aqua NC's water systems avoided significant damage and we were able to effectively minimize water outages for our customers. We were assisted by several of our sister Aqua states (most notable Aqua VA and Aqua PA) in the form of extra personnel and equipment, which was a tremendous help.

Since my update last year, we completed the repair/replacement/activation of the distribution system pressure reducing valves (PRVs) that were installed with the original system, but never placed in service. These PRV's, in addition to the VFD's that were also installed last year, are expected to help further minimize some pressure surges in low lying areas that could contribute to main breaks.

As you know, we had a bad storm in your area during the early part of this past summer. Unfortunately, this storm damaged the new VFD panels we installed during the Spring of 2017. If you recall, the VFD's were installed to minimize the "water hammer" effect on the distribution system that occurs when the water pumps turn on and off and, thus, reduce the # of resultant main breaks Olde Beau was previously experiencing. These VFDs have had a very positive impact as the amount of main breaks in the system have almost been eliminated since their installation. However, with the VFD's being damaged and inoperable since that storm, we experienced two main breaks this past summer (one in July and one in August). The replacement VFD panels are on order and we expect to have them received and installed by the end of October, if not within the next couple of weeks.

Note also that Aqua is in the process of adding an additional 5000 gallon storage tank to better serve growing capacity needs in your system. The tank will be located next to the existing tank in the woods behind the

club and is expected to be installed in the next few months, depending on receipt of state approval.

I hope this update helps. Please feel free to call me if you have any questions.

Thanks,
Shannon

<image003.png>
Shannon V. Becker
President
Aqua North Carolina, Inc.
202 MacKenan Court
Cary, North Carolina 27511
O: 919.653.5770 F: 833.291.8231
<image004.png> <image005.png> <image006.png>

From: David T. Rouse [REDACTED]
Sent: Thursday, September 27, 2018 2:08 PM
To: Becker, Shannon V <SVBecker@aquaamerica.com>
Subject: RE: Aqua Olde Beau update

Shannon,
I trust all is well with you. I would assume you and your company are busy with the issues in the Eastern parts of NC & SC.

We need your help as we prepare for the Olde Beau Annual Meeting of Property Owners. Would you please give me an update on activities this past year at Olde Beau and what you see for the coming year.

Thank you in advance for your response,

<image002.jpg> [REDACTED]
[REDACTED]:

Reflections: The only thing between you and your destiny is the thing you are busy avoiding. Success is a journey, not a destination - "He is no fool who gives what he cannot keep to gain what he cannot lose" - When our lives do not go as we planned, God gives us the opportunity to reach within ourselves and find the hidden "something" to rise above that difficulty - Water your faith seed - Bring your faith to work with you - He tests our commitment - "My grace is all you need. My power works best in weakness." - The morning is the rudder of our day—how we begin steers our course throughout - God loves to use people who are imperfect to do impossible things - Just remember, He says, you'll go nowhere tomorrow that I haven't already been.- One is not defined by what others say about them, but one is defined by what God says. "Five generation rule" -The way you bring up your child impacts four generations. Each of us will face a mountain at some time or another. In these times, rather than moving the mountain for us, God may provide a

shovel. If God doesn't remove your obstacles, He will help you find a way through them. God has a plan to get us through trouble! Affliction acts as spiritual fertilizer on a believer's faith- By means of affliction, God molds His children into comfort carriers. When facing enormous odds God somehow gets us through the storm! Godly repentance is an "about face". Mustard seeds have to be planted!

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From: Becker, Shannon V. <SVBecker@aquaaamerica.com>
Sent: Thursday, October 19, 2017 7:31 PM
To: Fred Padgett [REDACTED]
Cc: [REDACTED] Thompson, Moses A.
<MAThompson@aquaaamerica.com>; McDaniel, Dave T.
<DTMcDaniel@aquaaamerica.com>; Ison, Laurie T.
<LTIson@aquaaamerica.com>; Barbato, James C.
<JCBarbato@aquaaamerica.com>; Melton, Michael A.
<MAMelton@aquaaamerica.com>; Mueller, Jacob R.
<JRMueller@aquaaamerica.com>
Subject: RE: Aqua Olde Beau update

Hi Fred – I just ran back by your e-mail and wanted to take a moment to thank you for the positive words. I am glad we have been able to make these improvements to your system and they are showing results! Dave McDaniel, the supervisor for your area, has been on top of maintaining the Olde Beau system and is doing a great job!

Thank You,
Shannon

Shannon V. Becker
Office: 919.653.5770
Avaya ext.: 55770

From: Fred Padgett [REDACTED]
Sent: Wednesday, September 27, 2017 3:59 PM
To: Becker, Shannon V.
Cc: [REDACTED] Thompson, Moses A.; McDaniel, Dave T.; Ison, Laurie T.; Barbato, James C.; Melton, Michael A.; Mueller, Jacob R.
Subject: Re: Aqua Olde Beau update

Good Afternoon Shannon,

I am doing well.

Thanks for the latest update. Our board would like to thank you for staying abreast of the projects that you covered with our group last October. We have seen a significant improvement in water line breaks this year and I'm sure the VFD pumps Aqua installed this spring are responsible for that improvement. We're also encouraged that you are continuing to make other improvements to the system.

I plan to share this year's improvements at our annual meeting on October 7th. It certainly helps the tone of the meeting when I get to tell about such a positive story.

Keep up the good work!

Fred Padgett

On Tue, Sep 26, 2017 at 10:29 AM, Becker, Shannon V.
<SVBecker@aquaamerica.com> wrote:

Hi Fred,

I am very well and I hope you are as well.

As you know, we successfully installed the VFD (Variable Frequency Drives) pumps during Spring of this past year. Although additional improvements may be made, the installation of the VFDs was expected to provide the most significant immediate benefit to the system by reducing the number of main breaks being experienced. In fact, I am happy to report that we have only had two main breaks in your system this year, and one of those was prior to the installation of the VFD's.

In October, we will be performing preventative maintenance on the Olde Beau wastewater collection system. During that time, Aqua also plans to activate four pressure reducing valves (PRVs) that were installed with the original system, but not placed in service. Activating these PRV's is expected to help optimize

system water flow and further minimize some pressure surges in low lying areas that could contribute to main breaks. We will monitor the impact of utilizing these PRVs and determine if other locations might benefit from installation of additional PRVs.

I am glad we were able to make the improvements noted above to minimize main breaks and provide an improved customer experience for our Aqua customers in the Olde Beau community.

Thank You,

Shannon



<image003.png>

Shannon V. Becker

President

Aqua North Carolina, Inc

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From: Fred Padgett [mailto:
Sent: Wednesday, August 16, 2017 3:19 PM
To: Becker, Shannon V.
Cc:  Thompson, Moses A.; McDaniel, Dave T.; Ison, Laurie T.; Barbato, James C.; Melton, Michael A.; Mueller, Jacob R.
Subject: Re: Aqua Olde Beau update

Hello Shannon,

I hope you are doing well.

We will have our annual OBOA meeting on Saturday, Oct. 7th and I will be presenting items the board has worked on and completed this year. I'm hoping you can give me another update on the water system at Olde Beau. So far we've had a good summer with only 1 or 2 water line breaks but I'd like to present your latest update when we meet with the property owners.

Thanks for help.

Sincerely,

Fred Padgett

President OBOA Board

On Thu, Jun 15, 2017 at 6:36 PM, Becker, Shannon V.
<SVBecker@aquaamerica.com> wrote:

Hi David,

I am very well thank you, I hope you are.

Below is an update on the progress of the work that we discussed would be performed on the Olde Beau system.

Aqua completed the installation of Variable Frequency Drives (VFDs) pumps this past spring at all three well sites serving the Olde Beau system; they have now been operational for a couple months. This installation was the key item needed to help address some of the pressure related issues experienced in the water system. As we discussed, this effort alone significantly reduces the stress on the system caused from the "water hammer" effects that weaken distribution lines in the system and help reduce main breaks. Our operator for this system notes that the pressure is being better controlled and we have not had a break since we installed the VFD's; granted it has only been a short amount of time thus far.


As previously mentioned, Aqua engineering created a water model of the Olde Beau distribution system to identify locations where pressure reducing valves (PRVs) may additionally be installed to optimize system flow and minimize pressure surges in low lying areas. The locations of four original pressure reducing valves have been located, but were not in service. We plan to continue to assess the benefits offered by the installation of the VFD's through the summer months and determine if we need to repair the existing PRV's and/or install new ones in strategic locations.

The water model will also continue to be updated with break information so we may better determine the appropriate pressure class of pipe needed for future main replacement projects as well as better target areas of required main replacements.

I hope you are also finding that these improvements are already reducing water related issues in your community.

Best Regards,

Shannon

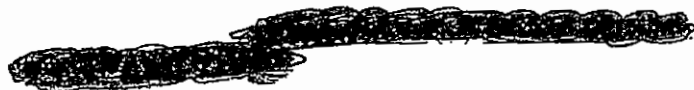
From: David T. Rouse [mailto:
Sent: Wednesday, June 14, 2017 9:57 PM
To: Becker, Shannon V.
Subject: RE: Aqua Olde Beau update

Hello Shannon, I trust you are doing well.

Wanted to see if you have any updates on the Olde Beau items?

Thank you,

<image007.jpg>David T. Rouse – OBOA Board Member



Reflections: The only thing between you and your destiny is the thing you are busy avoiding. Success is a journey, not a destination - "He is no fool who gives what he cannot keep to gain what he cannot lose" - When our lives do not go as we planned, God gives us the opportunity to reach within ourselves and find the hidden "something" to rise above that difficulty - Water your faith seed - Bring your faith to work with you - He tests our commitment - 'My grace is all you need. My power works best in weakness.- The morning is the rudder of our day—how we begin steers our course throughout - God loves to use people who are imperfect to do impossible things - Just remember, He says, you'll go nowhere tomorrow that I haven't already been.- One is not defined by what others say about them, but one is defined by what God says . "Five generation rule" -The way you bring up your child impacts four generations. Each of us will face a mountain at some time or another. In these times, rather than moving the mountain for us, God may provide a shevel. If God doesn't remove your obstacles, He will help you find a way through them. God has a plan to get us through trouble! Affliction acts as spiritual fertilizer on a believer's faith- By means of affliction, God molds His

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From: Becker, Shannon V. [mailto:SVBecker@aquaaamerica.com]
Sent: Wednesday, January 04, 2017 9:30 AM
To: 'OB-Fred Padgett (Personal)' [REDACTED]
Cc: McDaniel, Dave T. <DTMcDaniel@aquaaamerica.com>; Thompson, Moses A. <MAThompson@aquaaamerica.com>; Ison, Laurie T. <LTIson@aquaaamerica.com>; Poulos, Michael D. <MDPoulos@aquaaamerica.com>; Barbato, James C. <JCBarbato@aquaaamerica.com>; [REDACTED]
Subject: Aqua Olde Beau update

Fred,

Happy New Year!

During our meeting on October 18, 2016 we agreed to provide periodic updates while we continue to work on the various projects in Olde Beau. As discussed during this meeting, we identified several actions/projects that will occur in series to ensure repairs and replacements are prudent. As we complete each step we will need time to experience and analyze the results/improvements before deciding on and proceeding to the next step. Here are the activities we are currently working on:

Install Variable Frequency Drives (VFD) – We are in process of installing VFD's to help minimize water outages or loss of

pressure experienced from main breaks resulting from fluctuating water pressures when the well pumps turn on and off. Electrical engineering was completed late October and Aqua received deliverable plans and specs for this project. Aqua has run into minor challenges obtaining appropriately sized equipment for VFD installation, but still expects to have these improvements in service on or very near our Q1 2017 target date or February/March 2017. Upon completion, this effort should notably reduce the "hammering" impact from start/stop of well pumps and reduce stress on pipes. This will ultimately help us focus on replacing only those sections of main needing it most and minimize the magnitude of overall main replacements.

Prepare Water Model - The water model will facilitate efforts to identify opportunities where distribution system improvements may be made. The water model draft has been completed utilizing historic data and will continue to be updated using current information. Aqua engineers are currently utilizing this model to identify if/where we can/should install new pressure reducing valve's (PRV) within the distribution system. The intent of the PRV's is to limit high pressures in certain zones of the distribution system and therefore further minimize main breaks. This component of work is expected to be complete in late 2017. This too should ultimately help us minimize the magnitude of main replacements to focus on replacing those areas needing it most.

Main Replacement Program: As we discussed, mains must be identified for replacement in a prudent manner. Specific areas will be targeted for proactive replacement as we begin to see the impact from our completion of the VFD and PRV projects discussed above. In 2017, our operations team will begin to assess areas of pipe experiencing continued recurring main breaks so we can plan for proactive main replacements. The extent of the main replacement program will depend upon the benefits derived from the above projects with a focus on the sections experiencing recurring breaks.

We are looking forward to making these improvements and minimizing the main breaks and water outages in your community.

I hope you and the OBOA all are having an enjoyable holiday season!

Best Regards,

Shannon

Shannon V. Becker

President

Aqua North Carolina, Inc

<image008.jpg>

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Aqua North Carolina, Inc.
202 MacKenan Court
Cary, NC 27511

Thomas J. Roberts
President and Chief
Operating Officer

July 28, 2009

T: 919.653.5770
F: 919.460.1788
tjroberts@aquaaamerica.com
www.aquanorthcarolina.com

FEDERAL EXPRESS OVERNIGHT DELIVERY

Mr. Randy Blanton
107 Links Court
Hampstead, NC 28443

Re: Castle Bay Grinder Pumps

Dear Mr. Blanton,

In October 2004, you entered into an Assets Purchase Agreement with Aqua which indicated that the assets purchased by Aqua excluded "any sewer laterals that extend from the curb to the house and any grinder pumps connected to any such lateral." The records further indicate that the Developer was required by the North Carolina Environment Management Commission (Commission) to establish Declaration and Association Bylaws stating that a common expense fund would be established for the operation, maintenance, repair, and replacement of the disposal system in Castle Bay Subdivision. To date, there are no records showing this has been done which indicates the Developer is breach of its contract with the Commission.

Aqua is no longer accepting maintenance calls for Grinder Pumps in Castle Bay. The calls received are being directed to the POA.

Aqua has attempted to meet with you to schedule a meeting to discuss this matter further but has been unsuccessful making contact with you. It is important that this be resolved to comply with the signed Operational Agreement between the Developer and the Commission.

Please contact Rudy Shaw, Aqua's Director of Corporate Development, at your earliest convenience to discuss a resolution. He can be reached at 919-653-6967.

Sincerely

A handwritten signature in dark ink, appearing to read "Thomas J. Roberts", is written over a horizontal line.

Thomas J. Roberts
President



Aqua North Carolina, Inc.
202 MacKenan Court
Cary, NC 27511

Thomas J. Roberts
President and Chief
Operating Officer

T: 919.653.5770
F: 919.460.1788
tjroberts@aquaaamerica.com
www.aquanorthcarolina.com

May 12, 2009

Dear Resident of Castle Bay:

As you are aware, Aqua North Carolina, Inc. (Aqua) is the owner and operator of the Wastewater Treatment Plant and the Wastewater Collection System in Castle Bay Subdivision (Subdivision). The signed Asset Purchase Agreement ("Agreement") between Castle Bay Utilities, Inc. and Aqua dated October 2004 clearly specifies that the 'Excluded Assets' of the Agreement included "...any sewer laterals that extend from the curb to the house and any grinder pumps connected to any lateral...".

Based on the above, Aqua will no longer operate, maintain, or repair any grinder pumps installed in the Subdivision. All operation, maintenance, and repair needs of the grinder pump and sewer lateral for your lot are to be directed to the Castle Bay Property Owner's Association (POA). Future calls received by Aqua for operation, maintenance, and repair needs of the grinder pump and sewer lateral will be referred to the POA.

Sincerely,

A handwritten signature in black ink, appearing to read "Thomas J. Roberts", written over the word "Sincerely,".

Thomas J. Roberts
President and COO

CASTLE BAY PROPERTY OWNERS ASSOCIATION, INC.

P. O. BOX 12633

WILMINGTON, N. C. 28405-0130

910-762-3262 O

hoams1@bellsouth.net

910-762-3252 F

May 8, 2009

Aqua North Carolina, Inc.
202 MacKenan Court
Cary, N. C. 27511

MAY 11 2009

ATT: Mr. Thomas J. Roberts, President

RE: CASTLE BAY SUBDIVISION – SEWER LATERALS / GRINDER PUMPS

Dear Mr. Roberts

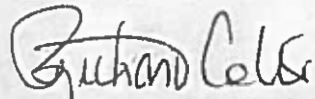
The Castle Bay POA is in receipt of your letter regarding repair responsibilities for the above noted. In review of the information contained therein, to the best of our knowledge, the only *legal* Restrictive Covenants recorded (BOOK 2954 PAGE 330-351) at the Pender County Registry do not reference these responsibilities as indicated in your letter.

Additionally, the Property Owners Association has no paperwork or copies of an agreement that reflect this responsibility. As for the testimony of Mr. Neil Phillips, it would seem the interpretation could easily be that "individual homeowners" are responsible. The word "homeowners" could mean the individual or association. In our discussions with your representative, it was made clear that "Individuals" would be responsible, not the association. That is supported by the fact that, if an individual is careful with their type of output and does not use the system extensively, then it would be logical that repairs would be less likely. If the association is responsible, those owners who are "careful" will likely end up paying for those that are not.

Granted, the Public Staff removed the responsibility of maintenance from Aqua. However, we do not believe that it was placed on the Castle Bay Property Owners Association. With that in mind and because the association will not accept this responsibility without substantial additional proof, *please rephrase any letter going out to your Castle Bay customers to reflect that repairs and maintenance to their systems is their responsibility.* Available information along with your correspondence will be forwarded to our attorney for review.

Thank you for your cooperation and if there are questions or we can be of assistance, do not hesitate to contact me.

Sincerely



Richard Collins, CMCA, AMS, PCAM
Community Manager
for: Castle Bay POA, Inc.



Aqua North Carolina, Inc.
202 MacKenan Court
Cary, NC 27511

Thomas J. Roberts
President and Chief
Operating Officer

T: 919.653.5770
F: 919.460.1788
tjroberts@aquaamerica.com
www.aquanorthcarolina.com

May 7, 2009

Mr. Richard Collins, Manager
Castle Bay Property Owners Association
P.O. Box 12633
Wilmington, N.C. 28405

Dear Mr. Collins:

As you are aware, Aqua North Carolina, Inc. (Aqua) is the owner and operator of the Wastewater Treatment Plant and the Wastewater Collection System in Castle Bay Subdivision (Subdivision). The signed Asset Purchase Agreement ("Agreement") between Castle Bay Utilities, Inc. and Aqua dated October 2004 clearly specified that the 'Excluded Assets' of the Agreement included "...any sewer laterals that extend from the curb to the house and any grinder pumps connected to any lateral...".

Furthermore, Randy Blanton, Developer of Subdivision, entered into an Operational Agreement with the North Carolina Environment Management Commission (see attached) on July 27, 2001 which specified that the Declaration and Association Bylaws shall indicate the maintenance for the Disposal System would be maintained out of the common expenses of the Castle Bay Property Owners Association ("Association") and that monies shall be readily available for construction, maintenance, and repair.

For further information, please refer to the testimony from the franchise hearing held on April 27, 2005 (see attached). Neil Phillips, who at that time was the President of Aqua, testified that the homeowners were to be responsible for the grinder pumps. Also, in the most recent rate increase proceeding testimony completed on January 27, 2009, Kathy Fernald, Supervisor of the Water Section of the Public Staff - Accounting Division, removed a significant amount of costs incurred by Aqua for the Castle Bay grinder pumps because "...the company does not own or have responsibility for these grinder pumps."

Page Two
Mr. Richard Collins
May 7, 2009

Based on the above, Aqua will no longer operate, maintain, or repair any grinder pumps installed in the Subdivision. Non-compliance with the terms of the Operational Agreement with the North Carolina Environment Management Commission shall subject the Castle Bay Homeowners Association to all sanctions provided by the North Carolina General Statute §143-215.6A to §143-215.6C for violation of or failure to act in accordance with the terms and conditions of the permit issued for the grinder pumps.

Aqua will be forwarding a letter to each resident in Castle Bay which shall indicate all operation, maintenance, and repair needs of the grinder pumps and sewer laterals located on each lot in Castle Bay are to be directed to the Association. Future calls received by Aqua for operation, maintenance, and repair of the grinder pumps and sewer lateral will also be referred to the Association.

Sincerely,

A handwritten signature in black ink, appearing to read 'T. Roberts', written over the word 'Sincerely,'.

Thomas J. Roberts
President and COO

CERTIFICATE OF SERVICE

I hereby certify that on this the 24th day of August 2020, a copy of the foregoing **REPORT ON CUSTOMER COMMENTS FROM VIRTUAL PUBLIC HEARINGS HELD ON AUGUST 3, 2020**, filed in Docket No. W-218, Sub 526, has been duly served upon all parties of record by electronic service.

Electronically Submitted

/s/Jo Anne Sanford
State Bar No. 6831
SANFORD LAW OFFICE, PLLC
Post Office Box 28085
Raleigh, North Carolina 27611-8085
Tel: (919) 210-4900
sanford@sanfordlawoffice.com

ATTORNEY FOR AQUA NORTH CAROLINA, INC.