

INFORMATION SHEET

PRESIDING: Commissioner Brown-Bland, presiding; Chairman Finley and Commissioners Dockham, Patterson, Gray, Clodfelter and Mitchell  
PLACE: Commission Hearing Room, Raleigh, NC  
DATE: September 25, 2018  
TIME: 9:00 a.m. – 12:12 p.m.  
DOCKET NO.: W-218, Sub 497  
COMPANY: Aqua North Carolina, Inc.  
DESCRIPTION: Application for Authority to Adjust and Increase Rates for Water and Sewer Utilities Service in All Service Areas in North Carolina  
VOLUME: 16

APPEARANCES

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Robert H. Bennink, Jr., Esq.  
Dwight Allen, Esq.  
Britton Allen, Esq.  
Brady Allen, Esq.

FOR THE USING AND CONSUMING PUBLIC:

Elizabeth D. Culpepper, Esq.  
William E. Grantmyre, Esq.  
Megan Jost, Esq.

WITNESSES

Please see attached.

EXHIBITS

Please see attached.

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EMAIL COPIES ORDERED: E-mail: Sanford, Townsend, Force, Culpepper  
PRINTED COPIES ORDERED:  
REPORTED BY: Kim Mitchell  
TRANSCRIBED BY: Kim Mitchell  
DATE TRANSCRIBED: September 28, 2018

TRANSCRIPT PAGES:	167
PREFILED PAGES:	23
TOTAL PAGES:	190

**FILED**

OCT 01 2018

Clerk's Office  
N.C. Utilities Commission

1 PLACE: Dobbs Building, Raleigh, North Carolina  
2 DATE: Tuesday, September 25, 2018  
3 TIME: 9:00 a.m. - 12:12 p.m.  
4 DOCKET NO: W-218, Sub 497  
5 BEFORE: Commissioner ToNola D. Brown-Bland, Presiding  
6 Chairman Edward S. Finley, Jr.  
7 Commissioner Jerry C. Dockham  
8 Commissioner James G. Patterson  
9 Commissioner Lyons Gray  
10 Commissioner Daniel G. Clodfelter  
11 Commissioner Charlotte A. Mitchell

12  
13 IN THE MATTER OF:

14 Application by Aqua North Carolina, Inc.,  
15 202 MacKenan Court, Cary, North Carolina 27511,  
16 for Authority to Adjust and Increase Rates  
17 for Water and Sewer Utility Service in  
18 All Service Areas in North Carolina.

19  
20 VOLUME: 16  
21  
22  
23  
24

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NORTH CAROLINA UTILITIES COMMISSION



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NORTH CAROLINA UTILITIES COMMISSION  
APPEARANCE SLIP

DATE 9-18-18  
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APPEARING FOR: Agua

APPLICANT \_\_\_\_\_ COMPLAINANT \_\_\_\_\_ INTERVENOR \_\_\_\_\_  
PROTESTANT \_\_\_\_\_ RESPONDENT \_\_\_\_\_ DEFENDANT \_\_\_\_\_

PLEASE NOTE: Electronic Copies of the regular transcript can be obtained from the NCUC website at [HTTP://NCUC.commerce.state.nc.us/docksrch.html](http://NCUC.commerce.state.nc.us/docksrch.html) under the respective docket number.

\*There will be a charge of \$5.00 for each emailed copy of transcript.\*

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Email: Sanford@sanfordlawoffice.com  
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NORTH CAROLINA UTILITIES COMMISSION  
APPEARANCE SLIP

DATE 9/11/18  
DOCKET #: 14-218 SUB 479  
NAME OF ATTORNEY ROBERT H. BENNINK, JR.  
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APPEARING FOR: AQUA NORTH CAROLINA, INC.

APPLICANT  COMPLAINANT \_\_\_\_\_ INTERVENOR \_\_\_\_\_  
PROTESTANT \_\_\_\_\_ RESPONDENT \_\_\_\_\_ DEFENDANT \_\_\_\_\_

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NORTH CAROLINA UTILITIES COMMISSION  
APPEARANCE SLIP

DATE 9-11-2018  
DOCKET #: W218 Sub 497  
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APPEARING FOR: \_\_\_\_\_

APPLICANT  COMPLAINANT \_\_\_\_\_ INTERVENOR   
PROTESTANT \_\_\_\_\_ RESPONDENT \_\_\_\_\_ DEFENDANT \_\_\_\_\_

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NORTH CAROLINA UTILITIES COMMISSION  
APPEARANCE SLIP

DATE 9/11/18  
DOCKET #: W-218, Sub 497  
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ADDRESS P.O. Box 629  
CITY Raleigh  
ZIP 27602

APPEARING FOR: the Using and Consuming public

APPLICANT \_\_\_\_\_ COMPLAINANT \_\_\_\_\_ INTERVENOR   
PROTESTANT \_\_\_\_\_ RESPONDENT \_\_\_\_\_ DEFENDANT \_\_\_\_\_

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Signature: Margaret Force  
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NORTH CAROLINA UTILITIES COMMISSION  
PUBLIC STAFF - APPEARANCE SLIP

DATE September 11, 2018 DOCKET #: W-218 Sub 497

PUBLIC STAFF MEMBER Elizabeth D. Culpepper, Megan Jost,  
and William E. Grantmyre

ORDER FOR TRANSCRIPT OF TESTIMONY TO BE **EMAILED** TO THE  
PUBLIC STAFF - PLEASE INDICATE YOUR DIVISION AS WELL AS  
YOUR EMAIL ADDRESS BELOW:

ACCOUNTING \_\_\_\_\_  
WATER \_\_\_\_\_  
COMMUNICATIONS \_\_\_\_\_  
ELECTRIC \_\_\_\_\_  
GAS \_\_\_\_\_  
TRANSPORTATION \_\_\_\_\_  
ECONOMICS \_\_\_\_\_  
LEGAL elizabeth.culpepper@psncuc.nc.gov  
CONSUMER SERVICES \_\_\_\_\_

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regular transcript (assuming a confidentiality  
agreement has been signed). Confidential pages will  
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\*\*\*PLEASE INDICATE BELOW WHO HAS SIGNED A  
CONFIDENTIALITY AGREEMENT. IF YOU DO NOT SIGN, YOU  
WILL NOT RECEIVE THE CONFIDENTIAL PORTIONS!!!!

ELIZABETH D. CULPEPPER, MEGAN JOST, WILLIAM E.  
GRANTMYRE

Elizabeth D. Culpepper Megan Jost William E. Grantmyre  
Signature of Public Staff Member

~~Public Staff~~  
~~Becker Rebuttal~~  
~~Cross Exam Exhibit~~

I/A

STATE OF NORTH CAROLINA  
UTILITIES COMMISSION  
RALEIGH

DOCKET NO. ~~W-218, SUB 363~~

FILED

~~NOV 21 2013~~

Clerk's Office  
N.C. Utilities Commission

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of: )

Application by Aqua North Carolina, Inc., )  
202 MacKenan Court, Cary, North Carolina )  
27511, For Authority to Increase Its Water )  
and Sewer Rates )

~~AQUA NORTH CAROLINA'S~~  
~~RESPONSE TO CUSTOMER~~  
~~COMMENTS FROM RALEIGH~~  
~~PUBLIC HEARING~~

Now Comes Aqua North Carolina, Inc. ("Aqua" or "Company"), responding to decretal paragraph seven (7) of the Order entered by this Commission on September 24, 2013, by responding to customer comments expressed at the public hearings in this matter.

A public hearing was held on November 21, 2013, at 7:00 p.m. in Raleigh, North Carolina at the Dobbs Building, Room 2115, 430 North Salisbury Street, Raleigh, North Carolina. Commissioner ToNola D. Brown-Bland presided, joined by Chairman Edward S. Finley, Jr. and Commissioners Susan W. Rabon, Bryan E. Beatty, Don M. Bailey, Jerry C. Dockham and James G. Patterson. Staff attorneys Elizabeth A. Denning and William E. Grantmyre, along with Charles Junis, Engineer, Water and Sewer Division, appeared for the Public Staff on behalf of the using and consuming public. Jo Anne Sanford of Sanford Law Office, PLLC and Thomas J. Roberts, State President and Chief Operating Officer, appeared on behalf of Aqua.



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### **A. Purpose of Report**

This report summarizes the customer service quality concerns expressed at the public hearings, addresses the Company's response and level of corrective action, and describes generally the Company's position on and communication about its service to North Carolina customers.

### **B. General Customer Comments and Aqua Response**

Twenty witnesses testified at the Raleigh public hearing and each witness who presented a service-related complaint or issue was personally contacted by an Aqua representative, either in person or electronically. The bulk of the concerns addressed the impact of naturally occurring iron and manganese in the groundwater supply; therefore, it is useful to initially describe this phenomenon, the existing and potential options for treatment, Aqua'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 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 only of secondary standards. Compliance with secondary standards is not required to insure safety of the water supply. In fact, utilities regulated by this Commission are not required to meet secondary standards, though the presence of these elements in amounts greatly in excess of the secondary standard can result in action by the Department of Environmental and Natural Resources ("DENR").

Private wells are not even required to test for these elements, and in sum, it is not uncommon for drinking water supply to exceed the secondary water Maximum Contaminant Limit ("SMCL") of 0.3 mg/L for iron and 0.5 mg/L for manganese.

Despite the absence of a health concern, Aqua recognizes and shares customer concern about the impact of higher concentrations of these elements on the color of the customers' water. The Company, along with the entire industry, is mindful of the complaints about clogged filters 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 state has produced this issue from the dawn of drilling.

In the Aqua statewide system of 1,500 wells, approximately 30% are challenged by high levels of iron and manganese in the groundwater supply. There are three primary methods of treatment for these elements and Aqua employs all three. The descriptions below are in inclining order of expense:

1. **Flushing.** This is the most common and cost effective method of mitigation for this phenomenon. It is accomplished by flushing the distribution system through blow-offs at dead ends or from flushing hydrants. It requires notice to specific customers or neighborhoods prior to initiating, in order that they may be prepared for temporary water discolorations and—in some instances—low pressure. Aqua has specific flushing schedules for systems that have known issues and flushes others on a periodic basis. In addition to regular flushing,

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upon complaints from specific areas, Aqua may institute some emergency flushing that can provide immediate relief. Although flushing is the most immediate response to these issues, it only scours the build-up of naturally occurring minerals in the distribution system and does not provide a solution to the source of supply.

2. **Chemical sequestration.** For iron and manganese that is soluble, there are approved chemical sequestration additives that can help with the impacts of these naturally occurring minerals. The basic operation of almost all of these additives is to produce a bond with the iron and manganese elements which keeps them in solution, thereby rendering them invisible to the end-user. However if the water is heated or if chlorine bleach is added, most of these additives cannot maintain the minerals in solution. Consequently, they then become visible to the end-user. This has been the "treatment of choice" for many years by Aqua and its predecessor companies (Heater, Hydraulics, etc.). Chemical sequestration masks the presence of the minerals, making the water more aesthetically pleasing, but does not remove them from the water.

Aqua is evaluating and in some instances deploying a sequestration product called SeaQuest®. This product will disperse and sequester the iron that comes into the water from natural sources and keep it in its natural colorless state. This means that when SeaQuest® is added to the water at the source, water at the tap will be clear regardless of its iron levels at the source. It also means the water should be colorless regardless of pH level, time that the water has been in use, or the temperature of the water. Additionally, SeaQuest® should

keep the iron colorless even after the addition of chlorine to the water for disinfection purposes.

Manganese sequestering is one of the most difficult chemical reactions in drinking water applications. Two different potential sources of manganese can occur in drinking water distribution systems. The first type is manganese that comes into solution from the water source naturally, and the second is the manganese that comes into solution from the buildup and staining in the distribution system.

As with iron, SeaQuest® will also disperse and sequester the manganese that comes into the distribution system from natural sources and keep it in its natural colorless state. This means that when SeaQuest® is added to the water at the source, water at the tap will be clear regardless of its source manganese levels. It also means colorless water regardless of pH level, time that the water has been in use, or the temperature of the water. SeaQuest® is even expected to keep the manganese colorless after the addition of chlorine to the water for disinfection purposes.

~~Though SeaQuest® is thought to be a superior product, its impact on discolored water is not "instantaneous." It takes time for the SeaQuest® to dissolve all of the build-up in the mains, distribution lines, and customer-service lines. This is a long term process. SeaQuest® will keep the dissolved Fe/Mn colorless from the well source and dissolve it at the well when it is added. However, it will take several months up to a year for the SeaQuest® to dissolve the build-up that has accumulated on the inside of the pipes, tanks,~~

valves, etc. The manufacturer recommends several flushings at intervals such as 30 days, 60 days, 90 days, and 120 days, if possible.

Aqua uses sequestration/additives to treat approximately 25% of its wells, at an annual cost of approximately \$77,000.

3. **Filtration.** This process uses filters which are installed at the source wells. Historically these have been large canisters filled with manganese green sand filter media. Use of an oxidizing agent in conjunction with the green sand filter media forces impurities in the water (such as iron, manganese and hydrogen sulfide) to be oxidized. The oxidized impurities are then trapped in the sand and held. Periodically the green sand filter media must be backwashed to regenerate the capacity and to remove the impurities captured. Green sand filters are also effective for manganese removal. In these instances, additional treatment ahead of the filtration may be required in order to achieve satisfactory results.

There are two downsides to these filters. The first is cost, which can range from \$50,000 to over \$200,000, depending on the capacity needed to treat the water and the backwash treatment methodology. The second drawback deals with disposal of backwash. In the past, Aqua and its predecessor companies were able to secure direct disposal permits to allow the backwash to be discharged to ditches, streams, and/or creeks. In many cases, this is no longer an option because of heightened environmental regulation. Another option is to store the backwash on site and haul it to a wastewater plant for disposal. This is effective but involves obvious operating expenses and can be time-consuming,

Public Staff  
Becker Rebuttal  
Cross Exam Exhibit 2  
I/A

STATE OF NORTH CAROLINA  
UTILITIES COMMISSION  
RALEIGH

~~Order dated~~  
May 2, 2014

~~DOCKET NO. W-218-SUB 363~~

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of  
Application by Acqua 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 of Its Service Areas in  
North Carolina

) ORDER GRANTING PARTIAL RATE  
) INCREASE, APPROVING RATE  
) ADJUSTMENT MECHANISM, AND  
) REQUIRING CUSTOMER NOTICE

HEARD IN: 1924 Courthouse, Robert E. Hibbits Meeting Room, 30 N. College Avenue, Newton, North Carolina on Thursday, November 14, 2013, at 7:00 p.m.

Commission Hearing Room 2115, Dobbs Building, 430 North Salisbury Street, Raleigh, North Carolina on Thursday, November 21, 2013, at 7:00 p.m.

Old Cumberland County Courthouse, Historic Courthouse, Hearing Room #3, 2<sup>nd</sup> Floor, 130 Gillespie Street, Fayetteville, North Carolina on Tuesday, December 10, 2013, at 7:00 p.m.

New Hanover County Courthouse, Courtroom 300, 316 Princess Street, Wilmington, North Carolina on Thursday, December 12, 2013, at 7:00 p.m.

Forsyth County Courthouse, Courtroom 1A, 200 N. Main Street, Winston-Salem, North Carolina on Monday, December 16, 2013, at 7:00 p.m.

Mecklenburg County Courthouse, Courtroom 5310, 832 E. 4<sup>th</sup> Street, Charlotte, North Carolina on Tuesday, December 17, 2013, at 7:00 p.m.

Commission Hearing Room 2115, Dobbs Building, 430 North Salisbury Street, Raleigh, North Carolina on Monday, January 27, 2014, at 1:30 p.m. and Tuesday, January 28, 2014, at 9:00 a.m.

BEFORE: Commissioner ToNola D. Brown-Bland, Presiding; Chairman Edward S. Finley, Jr.; and Commissioners Susan W. Rabon, Bryan E. Beatty, Jerry C. Dockham, Don M. Bailey, and James G. Patterson

necessary. If Company management chooses to participate in such meetings with customers in order to facilitate good customer relations and appropriate problem resolutions, the Commission supports that effort as well.

#### EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NOS. 9 – 10

The evidence supporting these findings of fact is found in the testimony of Aqua customers Nydia Morales, Sheri Bagley, and Daniel Hudson received at the December 17, 2013 Charlotte public hearing; the testimony of Company witness Roberts; the verified Report on Customer Concerns regarding the referenced Charlotte public hearing; and in the Stipulation.

Certain customers complained that Aqua did not bill in a timely manner for wastewater service. Aqua reported how it is sometimes difficult to obtain accurate information to provide a timely bill if a wastewater-only customer leaves or joins the system, without notifying the Company. Aqua explained that when a builder calls for initial water service, the accounts are activated only for water service since the builder does not use the wastewater service during the home construction process. When the completed property is transferred to a consuming customer, the wastewater service should be activated and the customer should begin to receive a bill for both services. However, due to reorganization in Aqua's Customer Operations at its corporate office, the responsibility for consolidating these two services was reassigned and was not updated for several months. Aqua reported that it has revised an internal customer auditing process, including regular reviews of customers who should be getting water and wastewater charges, in an effort to prevent future incidences of the type of error to which public witnesses Morales, Bagley, and Hudson testified. The Company's prior process included a field audit of its wastewater-only systems every six months to verify occupancy of homes which was compared against Company billing records. In the Stipulation, Aqua agreed to conduct such audits at least once every two months.

The Commission finds and concludes that such agreement is reasonable and appropriate and should be approved.

#### EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NOS. 11 – 16

The evidence supporting these findings of fact is found in the testimony of Aqua witness Roberts, Public Staff witnesses Furr and Junis, in the testimony of the public witnesses at the seven public hearings, in the verified Reports on Customer Concerns, and in the Stipulation.

The primary service-related concerns expressed by customers at the public hearings in this proceeding related to water quality issues caused by high concentrations of iron and manganese in the source supply of water serving certain subdivision service areas. Elevated levels of iron and manganese in the water present aesthetic issues, such as brown water and black particles in the water; cause staining of fixtures and laundry items; and damage household appliances. The verified Reports,

filed after each of the seven public hearings, addressed measures undertaken or planned to be implemented by Aqua to address these secondary water quality issues.

Aqua witness Roberts testified that the Company's North Carolina water sources throughout the State are principally groundwater that often contains naturally occurring iron and manganese, which in some instances causes discolored, sediment-laden water. Witness Roberts stated that of Aqua's more than 1,500 wells in this State, approximately 400 draw from groundwater that has appreciable amounts of iron and manganese. Witness Roberts commented that the wells generally continue to deteriorate because the groundwater typically does not get better, but usually gets worse as the intrusion of these naturally occurring minerals progresses. Witness Roberts testified that these elements are not addressed by primary drinking water standards, which deal with health-related criteria, but rather are addressed via secondary water quality standards.

Witness Roberts stated that iron and manganese can be treated to make them non-objectionable to customers by either removal from the water or by chemical sequestration. He explained that the sequestration process keeps the iron and manganese in their soluble liquid forms, which will not cause staining. He further explained that removal of the iron and manganese from the water can be performed by several processes but that central filtration, installed at the well, is the most effective and also the most expensive treatment. Witness Roberts described various other remedies including: (1) the customer running water to allow buildup to drain; (2) the Company flushing the water system from the street; and (3) the installing of filtration on the customer's premises, either on a whole-house or individual appliance basis. He commented that the levels of effectiveness, the cost, and the relative responsibility for the various modes of treatment vary.

Witness Roberts testified that in many instances Aqua uses an orthophosphate or a polyphosphate to sequester the iron and manganese. He commented that because this type of treatment is not a removal process but a suspension process to keep the minerals in their clear, liquid form, if the water is heated or if chlorine bleach is added, most of these types of additives cannot maintain the minerals in solution. Consequently, such minerals then become visible to the customer. Witness Roberts stated that Aqua has been using a new type of sequestering product called SeaQuest® that the Company believes may be a better product than the one historically used by Aqua but it is a little early in the process to make that determination. He contended that when SeaQuest® is added to the water at the source, water at the tap should be colorless regardless of the temperature of the water or even if chlorine has been added for disinfection purposes. On cross-examination, witness Roberts commented that in conjunction with using SeaQuest®, the Company has also started using cartridge filters on a pilot basis. He described the cartridge filters to be similar to what a person would buy at Home Depot or Lowe's but on a larger scale. Witness Roberts testified that in some instances, on some of Aqua's lower producing wells, this treatment appears to be effective. He noted that the Company is still experimenting with this treatment combination. He maintained that the most effective way of removing secondary water



quality iron and manganese from the water is by filtration, that is, green sand filtration. However, a treatment methodology to dispose of the backwash would need to be identified and effected, which will present challenges in some cases. Witness Roberts stated that the cost of filtration equipment on a well could range from \$100,000 to \$150,000 and that would not include the ongoing expense associated with the disposal of the backwash from the filtration equipment.

On cross-examination, witness Roberts discussed the option of drilling a new well in order to address water quality concerns associated with secondary water quality standards. Witness Roberts responded that there are many unknowns associated with drilling a new well such as the water quality that would be provided and the capacity that would be obtained. He opined that since there is technology available today to address the known water quality issues that the Company currently has in its existing wells that treating existing wells may be a better option than contending with the uncertainties and the costs associated with drilling a new well.

Witness Roberts testified that Aqua has a duty to be proactive in responding to customer complaints concerning secondary water quality issues while trying to avoid large rate increases. He stated that since the last rate case proceeding Aqua has spent over a million dollars on various treatment methods to address secondary water quality issues. Witness Roberts described the Company's goal of utilizing the system improvement charge, should the Commission approve such a mechanism, to address the secondary water quality issues presented by elevated levels of iron and manganese in the source water supply of certain systems.

Public Staff witness Junis testified concerning his field investigations of Aqua systems, including some of the systems about which complaints had been registered in the hearings, and concluded that Aqua's water utility systems are generally in compliance with federal and state regulations, testing requirements and water quality standards. Where problems have been identified, witness Junis noted that Aqua has generally corrected the problems or is actively working toward solutions. He stated that improvements that are in process or proposed are expected to add to the reliability and consistency of water quality service and testified that Aqua is providing adequate water and wastewater service in its service areas.

Witness Junis stated he would continue to interact with DENR to follow-up on water quality issues at Aqua's systems. Although compliance with secondary water quality standards is not required to insure safety of the water supply, the presence of certain elements in amounts greatly in excess of the secondary water quality standards can result in action by DENR. In order to interact effectively with DENR concerning any continuing water quality issues at Aqua's systems, the Public Staff recommended that Aqua convey conversations with, reports to, and the recommendations of DENR to the Public Staff in a timely manner.

~~Witness Junis testified that the primary response Aqua is taking to address concentration levels of iron and manganese exceeding secondary water quality~~

~~standards-is-the-addition-of-or-transition-to-treatment-utilizing SeaQuest®. Aqua indicated in its Reports on Customer Concerns that SeaQuest® will disperse and sequester the iron and manganese that comes into the water from natural sources and keep it in its natural colorless state. Although SeaQuest® is thought to be a superior chemical sequestration product, its impact on discolored water is not instantaneous. That is, it will take time for the SeaQuest® to dissolve all of the build-up in the mains, distribution lines, and customer service lines. In its Reports, Aqua commented that this type of treatment is a long term process. It will take several months or up to a year for the SeaQuest® to dissolve the build-up that has accumulated on the inside of the pipes, tanks, valves, and other system infrastructure. According to Aqua, the manufacturer of SeaQuest® recommends several flushings at intervals such as 30 days, 60 days, 90 days, and 120 days, if possible.~~

On cross-examination, witness Junis stated that although the full treatment of SeaQuest® takes about a year, if effective, customers should see incremental improvement in their water quality during that year. Witness Junis further testified that treatment with SeaQuest® is not always the best choice for a particular water system. In some circumstances it will become evident that SeaQuest® is not the solution for a given system due to the lack of improvement in water quality during treatment. Witness Junis stated that the Public Staff is looking for incremental steps in terms of the treatment of secondary water quality issues, whether it is chemical sequestration or filtration.

Public Staff witness Furr presented evidence concerning the determinations to be made and information required in order to proceed with a system improvement charge-based solution to the iron and manganese water quality issues. On cross-examination, witness Furr explained that the Public Staff would want to determine first that the other, less costly options had been exhausted without adequate results before the Public Staff would make a recommendation to the Commission for Aqua to install a more expensive capital project solution, such as a green sand filter.

In the Stipulation, Aqua and the Public Staff agreed that the Company would file bi-monthly reports addressing the water quality issues and solutions with respect to the concerns raised by customers at the public hearings in this proceeding, including the following systems: Bishops Gate, Bloomfield, Meadow Ridge, Olde South Trace, Sedgemoor/Village of Wynchester, Castle Bay, Monticello Estates, Old Beau, and Harbor Club. During the evidentiary proceeding on January 27, 2014, Aqua agreed to add Sutton Estates, Waterfall Plantation Estates, Hampton Ridge, and Westmoor systems to the reporting list. The Stipulation specified that these reports will describe what is being done by Aqua to address water quality issues and will include summaries of customer concerns raised, results of water laboratory analyses (including soluble and insoluble concentration levels of iron and manganese) to measure baseline concentration levels and the effectiveness of chemical sequestration treatment, and budgetary cost estimates to install filtration systems (green sand or other filtration options deemed appropriate) at Aqua's systems with iron and manganese water quality issues.

Based upon the testimony of the public witnesses, the Reports on Customer Concerns, the Public Staff's investigation and findings, and the evidence in this proceeding, the Commission finds and concludes that Aqua's overall quality of service is adequate. However, the pending matters set forth in Aqua's Reports on Customer Concerns, particularly the water quality issues pertaining to secondary water quality standards, require further action by Aqua. The Commission is of the opinion that the bi-monthly reporting agreed to by the Stipulating Parties will ensure that the pending matters set forth in Aqua's Reports will be sufficiently monitored and addressed as soon as practicably possible. Consequently, the Commission finds and concludes that the agreement between the Stipulating Parties for Aqua to file bi-monthly reports addressing the water quality concerns raised by customers at the public hearings in this proceeding, as noted and modified during the evidentiary hearing, is reasonable and appropriate and should be approved.

The Commission understands that it may be difficult and costly to totally eradicate the impact of excessive levels of iron and manganese in some of the Company's sources of water. However, the Commission believes that Aqua should strive to provide sustained water quality improvement for those subdivision service areas which experience these secondary water quality concerns by implementing reasonable and practical solutions where possible. In several subdivision service areas where customers expressed concerns resulting from secondary water quality issues, Aqua reported that the Company has committed to switch its sequestering agent to SeaQuest® in 2014 and plans to perform the required flushing. In some subdivision service areas, Aqua reported that it had, in 2013, switched its sequestering agent to SeaQuest®, or at various wells had recently installed a cartridge filtration system or recently changed the existing cartridge filter. Such remedial actions may result in sustained water quality improvement for these subdivision service areas. However, in some cases, more extensive treatment methods may be required. The Commission agrees with the Stipulating Parties that the secondary water quality issues related to excessive levels of iron and manganese in the source water supply for certain subdivision service areas should be further evaluated by Aqua and appropriate treatment options should be identified. As discussed in more detail later in this Order concerning the WSIC mechanism, Aqua and the Public Staff should work together to recommend to the Commission appropriate solutions to eradicate to the extent practicable these secondary water quality issues through the use of projects that are eligible for recovery through the WSIC, if appropriate.

Further, in order for the Public Staff to interact effectively with DENR concerning any continuing water quality issues at Aqua systems and to be in a more informed position to work with Aqua to formulate a recommendation to the Commission regarding the need and appropriateness of more extensive improvements to address secondary water quality issues, the Commission finds and concludes that Aqua should convey conversations with, reports to, and the recommendations of DENR to the Public Staff regarding the water quality concerns being evaluated and addressed in Aqua's systems in a timely manner as requested by the Public Staff. Such communication should be in a

written format and should be provided, at a minimum, on a bi-monthly basis. Aqua should provide the Public Staff copies of: (a) Aqua's reports and letters to DENR concerning water quality concerns in its systems; (b) responses from DENR concerning reports, letters, or other verbal or written communication received from Aqua; and (c) DENR's specific recommendations to Aqua, by system, concerning each of the water quality concerns being evaluated by DENR.

EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NOS. 17 – 20  
(IMPACT OF HOUSE BILL 998)

The evidence supporting these findings is contained in the Stipulation and the testimony of Public Staff witness Fernald. On July 23, 2013, North Carolina Session Law 2013-316 (House Bill 998) was signed into law. This legislation impacts the amount of tax expense paid by the utilities regulated by this Commission, including Aqua. The Commission notes that it has initiated a generic proceeding in Docket No. M-100, Sub 138 (Generic Tax Docket) to address potential issues raised by the change in tax rates effectuated by House Bill 998 with respect to all major North Carolina utilities. In its comments filed on November 12, 2013 in that docket, Aqua proposed that the impact of the tax changes on Aqua's rates be resolved in this proceeding.

House Bill 998 establishes two downward adjustments in the North Carolina corporate income tax rates to be effective for tax years 2014 and 2015. For Aqua, the state income tax rate was reduced from 6.9% to 6% on January 1, 2014, and will further be reduced from 6% to 5% on January 1, 2015. Also, House Bill 998 eliminates the gross receipts tax paid by water and sewer utilities under G.S. 105-116. As a result, Aqua will cease paying gross receipts tax on June 30, 2014, and will begin paying the corporate franchise tax on January 1, 2015. In Paragraph 4 of the Stipulation, the Stipulating Parties agree that in determining the revenue requirement in this case, (1) gross receipts tax, which Aqua will cease paying on June 30, 2014, will be removed from the calculation, (2) an annual level of corporate franchise tax, which Aqua will begin paying on January 1, 2015, will be included in the calculation, and (3) state income taxes will be based on the 5% rate effective January 1, 2015. The Stipulating Parties further agree that the differences between the amounts included in the revenue requirement and the amounts due in 2014 will be addressed through two riders. A GRT Rider will be implemented for the short period of time between the effective date of rates in this docket and the July 1, 2014, effective date for the repeal of the gross receipts tax. An Income and Franchise Tax Rider will be implemented for the net impact of the state income tax and corporate franchise tax changes for the period of time between the effective date of rates in this case, until January 1, 2015, the date that Aqua will be affected by the tax changes. No party opposes this plan to address the impact of House Bill 998 on Aqua.

In addition to discussing the treatment of state income tax expense, corporate franchise tax, and gross receipts tax set forth in the Stipulation, Public Staff witness Fernald testified that Aqua has recorded accumulated deferred income taxes (ADIT) based on a 6.9% state income tax rate, and due to the reduced state income tax rates

Although no specific testimony was offered by the Stipulating Parties regarding Paragraph 16 of the Stipulation, this provision appears to be non-controversial and not one which requires detailed explanation or justification beyond that supplied by witness Roberts in support of the Stipulation in its entirety.

Based upon a careful review of the record, the Commission concludes that Paragraphs 12, 13, 15, and 16 of the Stipulation are fair and reasonable and should be approved.

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 56  
(STIPULATION APPROVAL)

The evidence supporting this finding is contained in the Petition, the Form W-1, the testimony and exhibits of the witnesses, the Stipulation, and the entire record in this proceeding.

As fully discussed above, the provisions of the Stipulation are the product of the give-and-take of settlement negotiations between Aqua and the Public Staff. As a result, the Stipulation reflects the fact that each party to the Stipulation agreed to certain provisions that advanced the other's interests. The end result is that the Stipulation strikes a fair balance between the interests of Aqua and its customers. As discussed above, the Commission has independently evaluated the provisions of the Stipulation and concludes that, in the exercise of its independent judgment, the provisions of the Stipulation are just and reasonable to all parties to this proceeding in light of the evidence presented and serve the public interest. Therefore, the Commission approves the Stipulation, with the exception of Paragraph 11. In light of the Commission's decision to adopt the alternative procedures provided in Appendices C and D of this Order with respect to the WSIC/SSIC mechanism, the Commission holds that Paragraph 11 of the Stipulation is now moot and thus will not be approved. Because this section of the Stipulation is moot, the Commission does not believe that the Stipulating Parties' agreement contained in Paragraph 19 that "[n]o portion of this Stipulation will be binding on the Stipulating Parties unless the entire Stipulation is accepted by the Commission" is implicated or should release the parties from their agreement and stipulation.

IT IS, THEREFORE, ORDERED as follows:

1. That the Stipulation between Aqua and the Public Staff, with the exception of Paragraph 11, incorporated by reference herein, is hereby approved.
2. That the Schedule of Rates, attached hereto as Appendices A-1, A-2, and A-3, are hereby approved and deemed filed with the Commission pursuant to G.S. 62-138.
3. That the attached Schedule of Rates are hereby authorized to become effective for service rendered on and after the date of issuance of this Order.

4. That the Company is authorized to implement an incremental GRT Rider of 4.17% of water revenues billed and 6.38% of sewer revenues billed, beginning on the effective date of the rates approved in this docket, and terminating on June 30, 2014.

5. That the Company is authorized to implement an Income and Franchise Tax Rider reducing the water and sewer revenues billed by 0.043% for Aqua water, 0.035% for Aqua sewer, 0.041% for Fairways water, 0.044% for Fairways sewer, and 0.043% for Brookwood water, beginning on the effective date of rates approved in this proceeding, and ending on December 31, 2014.

6. That a copy of the Notice of Customers, attached hereto as Appendices B-1, B-2, and B-3, shall be mailed with sufficient postage or hand delivered to all affected customers in each relevant service area, respectively, by Aqua in conjunction with the next regularly scheduled billing process.

7. That the Company shall file the attached Certificate of Service, properly signed and notarized, not later than 45 days after the issuance of this Order.

8. That the Company shall file bi-monthly reports addressing water quality concerns raised by customers at the public hearings in this proceeding, including customers served by the Bishops Gate, Bloomfield, Meadow Ridge, Olde South Trace, Sedgemoor/Village of Wynchester, Castle Bay, Monticello Estates, Olde Beau, Harbor Club, Sutton Estates, Waterfall Plantation Estates, Hampton Ridge, and Westmoor systems. Such reports shall describe what is being done by Aqua to address water quality issues and shall include summaries of customer concerns raised, results of water laboratory analyses (including soluble and insoluble concentration levels of iron and manganese) to measure baseline concentration levels and the effectiveness of chemical sequestration treatment, and budgetary cost estimates to install filtration systems (green sand or other filtration options deemed appropriate) at Aqua's systems with iron and manganese water quality issues. The first of the bi-monthly reports, which shall cover the time period of March-April 2014, shall be due on May 30, 2014, and shall continue to be filed until further Order of the Commission.

9. That Aqua's request to utilize a WSIC/SSIC mechanism pursuant to G.S. 62-133.12 to recover certain incremental costs related to eligible investment in water and sewer infrastructure projects completed and placed in service between general rate case proceedings is in the public interest and is hereby approved.

10. That Aqua shall utilize the alternative procedures set forth in Appendices C and D, attached hereto, and shall make the requisite filings in order to qualify for implementation of the WSIC/SSIC without having to make an additional rate filing subsequent to the adoption of final rules in Docket No. W-100, Sub 54.

11. That the Public Staff and the Company shall work together to develop and implement a plan to identify and respond to secondary water quality concerns that occur

in significant numbers in individual subdivision service areas. At a minimum, the Public Staff and the Company are required to file a written report with the Commission on June 1 and December 1 each year in which the WSIC is in effect on secondary quality concerns that are affecting its customers. If a particular secondary water quality concern has affected or is affecting 10 percent of the customers in an individual subdivision service area or 25 billing customers, whichever is less, the customers affected and the estimated expenditures that are necessary to eradicate the secondary water quality issues through the use of projects that are eligible for recovery through the WSIC shall be detailed in the written report. The written report shall also contain a recommendation as to whether the Commission should order the Company to pursue the corrective action and/or an underlying reason why the action should or should not be undertaken. If there are no secondary water issues or if the secondary water quality issues are below the 10%/25 threshold previously set forth, the Company and the Public shall so inform the Commission, but they need not report secondary water quality issues resolved by the Company without the assistance or expectation of assistance of the WSIC.

12. ~~That Aqua shall convey conversations with, reports to, and the recommendations of DENR to the Public Staff regarding the water quality concerns being evaluated and addressed in Aqua's systems in a timely manner. Such communication shall be in a written format and shall be provided, at a minimum, on a bi-monthly basis. Aqua shall provide the Public Staff copies of: (a) Aqua's reports and letters to DENR concerning water quality concerns in its systems; (b) responses from DENR concerning reports, letters, or other verbal or written communication received from Aqua; and (c) DENR's specific recommendations to Aqua, by system, concerning each of the water quality concerns being evaluated by DENR.~~

13. That the Company shall fund a volumetric sewer rate study to be conducted by the EFC at the University of North Carolina, to be completed within 12 months after the date of this Order. Aqua and the Public Staff shall work together with the EFC to determine the parameters of the study and shall jointly oversee the performance of the study. A report setting forth the data, methodology, assumptions, and findings of the study shall be filed with the Commission within 12 months after the date of this Order.

14. That Aqua may defer the cost of the volumetric sewer rate study on its books and request that such costs be amortized to the cost of providing utility service in the Company's next general rate case; provided, however, that the Public Staff may contest the inclusion of such costs in the Company's cost of service.

15. That the Company shall fund a study of mechanisms that address the rate impact to customers and the revenue impact to Aqua from significant changes in customer consumption patterns, to be conducted by the EFC at the same time as the volumetric sewer rate study. Aqua and the Public Staff shall work together with the EFC to determine the parameters of the study and shall jointly oversee the performance of

the study. A report setting forth the data, methodology, assumptions, and findings of the study shall be filed with the Commission within 12 months after the date of this Order.

16. That Aqua may defer the cost of the customer consumption adjustment mechanism study on its books and request that such costs be amortized to the cost of providing utility service in the Company's next general rate case; provided, however, that the Public Staff may contest the inclusion of such costs in the Company's cost of service.

17. That the Company shall conduct a physical audit of the number of customers at least once every two months for each Aqua sewer system where Aqua does not provide metered water service.

18. That the Company shall file the final documentation for the revisions to the 401(k) plan with the Commission within 90 days of the date of this Order.

19. That the Stipulation entered and filed on January 17, 2014, nor the parts of this Order pertaining to the contents of that agreement shall be cited or treated as precedent in future proceedings.

ISSUED BY ORDER OF THE COMMISSION.

This the 2<sup>nd</sup> day of May, 2014.

NORTH CAROLINA UTILITIES COMMISSION

*Gail L. Mount*

Gail L. Mount, Chief Clerk





I/A

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~~June 27, 2018~~

Mr. W. Allen Hardy  
Engineering Supervisor  
Public Water Supply Section  
Raleigh Regional Office, NCDEQ  
1628 Mail Service Center  
Raleigh, NC 27699-1628

Re ~~Notice of Deficiency – Quarterly Update  
Iron and Manganese Concentration  
Avocet Subdivision, Wake County~~  
WDF ID No.: Well #1, PO1  
Water System No: NC4092107

Dear Mr. Hardy:

Aqua North Carolina, Inc. (Aqua) received the above-referenced letter dated July 12, 2016, regarding elevated concentrations of Iron (Fe) and Manganese (Mn) at Avocet Well #1, PO1. The Avocet water system is comprised of four active wells and three points of entry (POE). The current number of customers served is 155 and the system is approved to serve 155 connections.

Aqua has compiled the requested information in a table format as follows:

- Table 1 provides a summarization of well information, completed activities and planned activities.
- Table 2 (Attachment 2) provides a summary of raw, POE and distribution iron and manganese samples collected as part of the ongoing Inorganic Chemical Analyses (IOC).
- Table 3 (Attachment 3) provides a summary of customer complaint information.

**UPDATED QUARTERLY STATUS REPORT**

**Table 1 – Well Information, Completed Activities and Planned Activities**

<u>Well Name and No.</u>	<u>Completed Activities</u>	<u>Planned Activities</u>
<p><del>Avocet, Well #1</del> (P01)</p>	<ul style="list-style-type: none"> <li>• <del>September 2015</del> – Started using SeaQuest</li> <li>• <del>April 2017</del> – Flushed system</li> <li>• September 2017 – Started distribution and POE total and soluble sampling</li> <li>• December 2017 – Started raw sampling</li> <li>• December 2017 – Cleaned hydropneumatic storage tank</li> </ul>	<ul style="list-style-type: none"> <li>• Aqua will submit executive summary for greensand filtration.</li> <li>• Continue to minimize usage of this well until greensand filtration is approved</li> <li>• Continue water main flushing efforts</li> </ul>
<p>Approved GPM (32)</p>		
<p>Avg. Quarterly Runtime (0.0)</p>		
<p><b><u>Comments:</u></b></p> <p>Currently, Aqua is running well #1 only as needed and will rely on production from wells #2, #3, and #4. A new well, well #12, will be interconnected with well #2 (pre-filter) to benefit from the upgraded greensand filtration that was completed in 2017. The construction of well #12 is 90% complete. The developer informed Aqua they are anticipating start up sometime in the third quarter of 2018. Aqua will also be submitting the executive summary for greensand filtration at well #1 in 2018 as part of the Aqua water quality plan.</p>		

Mr. W. Allen Hardy

June 27, 2018

Avocet Subdivision Quarterly Update

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Aqua is committed to providing water to its customers that meets their expectations at a reasonable cost. If you have any questions or comments, please contact me at (919) 653-6982.

Sincerely,



Robert Krueger

Area Manager

Aqua North Carolina, Inc.

cc: David Furr  
State of North Carolina  
Department of Commerce  
Utilities-Public Staff

**AVOCET-4092107**

Date	Avg. Sample Week Run Time	P01R-Well-1 Raw-Fe Lab	P01R-Well-1 Raw-Fe-Diss	P01-Well-1-Fe Lab	P01-Well-1-Fe-Diss	D01-Distribution System-Fe Lab	D01-Distribution System-Fe-Diss	P01R-Well-1 Raw-Mn Lab	P01R-Well-1 Raw-Mn-Diss	P01-Well-1-Mn Lab	P01-Well-1-Mn-Diss	D01-Distribution System-Mn Lab	D01-Distribution System-Mn-Diss
10/3/2017	0			1.19	0.324	0.388	0.183			0.0978	0.0954	0.169	0.159
10/17/2017	0			3.11	1.43	0.271	0.156			0.124	0.125	0.14	0.137
11/1/2017	0			9.21	0.156	0.561	0.172			0.175	0.174	0.13	0.143
11/15/2017	0			0.286	0.134	0.31	0.131			0.0915	0.091	0.0999	0.0973
12/19/2017	0	8.14	1.07	3.49	0.334	0.296	0.116	0.283	0.278	0.343	0.338	0.1	0.0948
1/11/2018	0	3.78	0.0581	0.778	0.413	0.263	0.118	0.356	0.335	0.104	0.0972	0.0981	0.0904
3/6/2018	0	7.94	0.148	4.23	0.0389	0.285	0.113	0.186	0.293	0.629	0.596	0.0902	0.0854
4/3/2018	0	8.68	< 0.022	5.55	0.0569	0.267	0.108	0.216	0.186	0.522	0.517	0.0882	0.0806
5/1/2018	0	1.64	< 0.022	0.762	0.0862	0.19	0.0711	0.254	0.247	0.213	0.2	0.19	0.0343

**Table 3 - Avocet Well #1 Customer Complaints**

SO	SO Type	CSR Notes	Date of SO	Completion Date	Premise	Address	City State Zip	Subdivision	FSR Notes
10583627	LABD-S	YASMIN HAS BROWN WTR PLEASE CHECK	5/22/2018	5/23/2018	1372036	5720 LUMINERE ST	HOLLY SPRINGS, NC 27540	AVOCET WATER	CL .9 pH 7.0 po4 1.2 Fe .23 MN .041 water was clear upon arrival. Left door tag FSR:johnsos, EVT:Lab
10540672	LABD-S	THERA IS EXTREMELY UPSET ABOUT POOR WATER QUALITY, SHE ADVISED THAT WATER IS RED/MUDDY AND STAINING ALL HER APPLIANCES. SHE REQUESTED ADAMANTLY FOR SOMEONE TO CALL HER.. SHE WOULD LIKE FOR SOMEONE TO COME TO HER PROPERTY.	4/27/2018	4/27/2018	1325990	6433 CARDINAUX LN	HOLLY SPRINGS, NC 27540	AVOCET WATER	CL .14 po4 2.0 pH 7.0 Fe .16 MN .000 hardness 68.4. Talked with customer and so did Jackle Jackson water was clear. Put jumper in so customer can flush there lines



June 27, 2018

Mr. W. Allen Hardy  
Engineering Supervisor  
Public Water Supply Section  
Raleigh Regional Office, NCDEQ  
1628 Mail Service Center  
Raleigh, NC 27699-1628

Re: Notice of Deficiency  
Iron and Manganese Concentration  
Belle Ridge Subdivision, Wake County  
WSF ID No.: Well #2, P02  
Water System No: NC0392358

Dear Mr. Hardy:

Aqua North Carolina, Inc. (Aqua) received the above-referenced letter dated July 12, 2016, regarding elevated concentrations of Iron (Fe) and Manganese (Mn) at Belle Ridge Well #2, P02. The Belle Ridge water system is comprised of two active wells and two points of entry (POE). The current number of customers served is 57 and the system is approved to serve 55 connections.

Aqua has compiled the requested information in a table format as follows:

- Table 1 provides a summarization of well information, completed activities and planned activities.
- Table 2 (Attachment 2) provides a summary of raw, POE and distribution iron and manganese samples collected as part of the ongoing Inorganic Chemical Analyses (IOC).
- Table 3 (Attachment 3) provides a summary of customer complaint information.

**UPDATED QUARTERLY STATUS REPORT**

**Table 1 – Well Information, Completed Activities and Planned Activities**

<u>Well Name and No.</u>	<u>Completed Activities</u>	<u>Planned Activities</u>
Belle Ridge, Well #2 (P02)	<ul style="list-style-type: none"> <li>• <del>August 2015 – Started using SeaQuest</del></li> <li>• <del>June 2017 – Flushed System</del></li> <li>• September 2017 – Installed cartridge filter.</li> <li>• September 2017 – Started distribution and POE total and soluble sampling</li> <li>• December 2017 – Added raw sample data</li> <li>• February 2018 - Hydropneumatic storage tank cleaned</li> </ul>	<ul style="list-style-type: none"> <li>• 2018 - Submit executive summary for greensand filtration</li> <li>• Continue the limited use of this well until greensand filtration is approved</li> <li>• Continue water main flushing efforts</li> </ul>
Approved GPM (30)		
Avg. Quarterly Runtime (0 hrs)		
<p><b><u>Comments:</u></b></p> <p>Aqua does not run Belle Ridge well #2 and relies on well #1 for meeting system demand. Aqua will be submitting an executive summary to the public staff for greensand filtration approval in 2018 as part of the Aqua water quality plan.</p>		

Mr. W. Allen Hardy  
June 27, 2018  
Bell Ridge Subdivision Quarterly Update

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Aqua is committed to providing water to its customers that meets their expectations at a reasonable cost. If you have any questions or comments, please contact me at (919) 653-6982.

Sincerely,



Robert Krueger  
Area Manager  
Aqua North Carolina, Inc.

cc: David Furr  
State of North Carolina  
Department of Commerce  
Utilities-Public Staff



**BELLE RIDGE-0392358**

Date	Avg. Sample Week Run Time	P02R-Well-2 Raw-Fe Lab	P02R-Well-2 Raw-Fe-Diss	P02-Well-2-Fe Lab	P02-Well-2-Fe-Diss	D01-Distribution System-Fe Lab	D01-Distribution System-Fe-Diss	P02R-Well-2 Raw-Mn Lab	P02R-Well-2 Raw-Mn-Diss	P02-Well-2-Mn Lab	P02-Well-2-Mn-Diss	D01-Distribution System-Mn Lab	D01-Distribution System-Mn-Diss
10/13/2017	2			0.588	0.357	0.403	0.181			0.197	0.171	0.0999	0.0655
10/18/2017	1.15			0.574	0.0275	0.381	0.179			0.207	0.13	0.177	0.141
11/2/2017	0.5			0.931	0.151	0.0876	0.0303			0.173	0.108	0.022	0.0134
11/15/2017	2.9			0.467	< 0.022	0.159	0.0237			0.194	0.108	0.0573	0.0305
12/14/2017	0.5	1.82	1.21	0.869	0.0793	0.578	0.205	0.253	0.248	0.246	0.166	0.0478	0.0197
1/5/2018	0.625	0.337	0.0361	0.348	0.0634	0.368	0.0813	0.375	0.367	0.37	0.33	0.38	0.332
3/8/2018	0.5	1.68	1.09	1.01	0.125	0.976	0.0613	0.285	0.284	0.319	0.228	0.315	0.229
4/3/2018	0	2.31	1.31	1.32	0.109	1.27	0.0262	0.322	0.319	0.386	0.298	0.395	0.297
5/3/2018	0.25	4.31	0.0683	1.52	0.0972	1.49	0.079	0.321	0.29	0.323	0.293	0.353	0.318

**Table 3 - Belle Ridge Customer Complaints**

<b>SO</b>	<b>SO Type</b>	<b>CSR Notes</b>	<b>Date of SO</b>	<b>Completion Date</b>	<b>Premise</b>	<b>Address</b>	<b>City State Zip</b>	<b>Subdivision</b>	<b>FSR Notes</b>
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**Aqua received zero complaints for this system in Q-2 of 2018**



June 27, 2018

Mr. W. Allen Hardy  
Engineering Supervisor  
Public Water Supply Section  
Raleigh Regional Office, NCDEQ  
1628 Mail Service Center  
Raleigh, NC 27699-1628

Re: ~~Notice of Deficiency - Quarterly Update~~  
~~Iron and Manganese Concentration~~  
~~Branston Subdivision, Wake County~~  
WSF ID No.: Well #2, TP1  
Water System No: NC4092076

Dear Mr. Hardy:

Aqua North Carolina, Inc. (Aqua) received the above-referenced letter dated July 12, 2016, regarding elevated concentrations of Iron (Fe) and Manganese (Mn) at Branston Well #2, TP1. The Branston water system is comprised of one active well and one point of entry (POE). The current number of customers served is 44 and the system is approved to serve 44 connections.

Aqua has compiled the requested information in a table format as follows:

- Table 1 provides a summarization of well information, completed activities and planned activities.
- Table 2 (Attachment 2) provides a summary of raw, POE and distribution iron and manganese samples collected as part of the ongoing Inorganic Chemical Analyses (IOC).
- Table 3 (Attachment 3) provides a summary of customer complaint information.

**UPDATED QUARTERLY STATUS REPORT**

**Table 1 – Well Information, Completed Activities and Planned Activities**


<u>Well Name and No.</u>	<u>Completed Activities</u>	<u>Planned Activities</u>
Branston, Well #2 (TP1)	<ul style="list-style-type: none"> <li>• <del>July 2013 – Started using SeaQuest</del></li> <li>• <del>September 2016 – Flushed system</del></li> <li>• March 2017 – Flushed system</li> <li>• July 2017 – Flushed system</li> <li>• September 2017 – Started distribution and POE total and soluble sampling</li> <li>• Continue distribution and POE soluble and insoluble sampling</li> <li>• December 2017 – Added raw sample data</li> <li>• December 2017 – Cleaned hydropneumatic storage tank</li> </ul>	<ul style="list-style-type: none"> <li>• 2018- submit executive summary for greensand filtration</li> <li>• Continue water main flushing efforts</li> </ul>
Approved GPM (49)		
Avg. Quarterly Runtime (3.75)		

**Comments:**

Aqua will be submitting the executive summary for greensand filtration at well #2 in 2018 as part of the Aqua water quality plan.

Aqua is committed to providing water to its customers that meets their expectations at a reasonable cost. If you have any questions or comments, please contact me at (919) 653-6982.

Sincerely,



Robert Krueger  
 Area Manager  
 Aqua North Carolina, Inc.

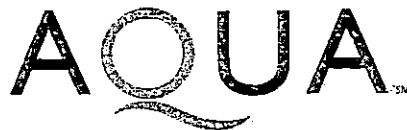
cc: David Furr  
 State of North Carolina  
 Department of Commerce  
 Utilities-Public Staff

**BRANSTON-4092076**

Date	Avg. Sample Week Run Time	TP1R-Well-2 Raw-Fe Lab	TP1R-Well-2 Raw-Fe-Diss	TP1-Well-2-Fe Lab	D01-Distribution System-Fe Lab	D01-Distribution System-Fe-Diss	TP1R-Well-2 Raw-Mn Lab	TP1R-Well-2 Raw-Mn-Diss	TP1-Well-2-Mn Lab	D01-Distribution System-Mn Lab	D01-Distribution System-Mn-Diss
10/13/2017				0.441	0.311	0.152			0.412	0.39	0.379
10/17/2017	8.41			3.2	0.351	0.204			0.623	0.413	0.44
11/1/2017	6.9			0.387	0.289	0.16			0.388	0.359	0.34
11/15/2017	4.71			0.383	0.245	0.0718			0.198	0.269	0.214
12/14/2017	4.5	0.371	0.0292	0.321	2.2	0.0815	0.328	0.312	0.314	1.21	0.279
1/5/2018	5.4	1.82	1.33	0.877	0.534	0.0794	0.256	0.254	0.25	0.0839	0.172
3/8/2018	3.5	0.436	< 0.022	0.421	0.435	0.0382	0.326	0.317	0.341	0.288	0.246
4/11/2018	2.16	0.402	< 0.022	0.404	0.369	0.0739	0.357	0.349	0.347	0.329	0.296
5/7/2018	3.29	0.545	0.401	0.481	0.516	0.0166	0.463	0.401	0.392	0.449	0.275

**Table 3 - Branston Well #2 Customer Complaints**

<b>SO Type</b>	<b>CSR Notes</b>	<b>Date of SO</b>	<b>Completion Date</b>	<b>Premise</b>	<b>Address</b>	<b>City State Zip</b>	<b>Subdivision</b>	<b>FSR Notes</b>
<b>Aqua received zero complaints for Q2- 2018</b>								



June 27, 2018

Mr. W. Allen Hardy  
Engineering Supervisor  
Public Water Supply Section  
Raleigh Regional Office, NCDEQ  
1628 Mail Service Center  
Raleigh, NC 27699-1628

Re: ~~Notice of Deficiency - Quarterly Update~~  
~~Iron and Manganese Concentration~~  
~~Briarwood/Kildaire Subdivision, Wake County~~  
WSF ID No.: Well #1, P04  
Water System No: NC0392383

Dear Mr. Hardy:

Aqua North Carolina, Inc. (Aqua) received the above-referenced letter dated July 12, 2016, regarding elevated concentrations of Iron (Fe) and Manganese (Mn) at Briarwood/Kildaire Well #1, P04. The Briarwood/Kildaire water system is comprised of five active wells and five points of entry (POE). The current number of customers served is 161 and the system is approved to serve 168 connections.

Aqua has compiled the requested information in a table format as follows:

- Table 1 provides a summarization of well information, completed activities and planned activities.
- Table 2 (Attachment 2) provides a summary of raw, POE and distribution iron and manganese samples collected as part of the ongoing Inorganic Chemical Analyses (IOC).
- Table 3 (Attachment 3) provides a summary of customer complaint information.

**UPDATED QUARTERLY STATUS REPORT**

**Table 1 – Well Information, Completed Activities and Planned Activities**

<u>Well Name and No.</u>	<u>Completed Activities</u>	<u>Planned Activities</u>
Briarwood/Kildaire Well #1 (P04)	<ul style="list-style-type: none"> <li>• <del>June 2015 – Started using SeaQuest</del></li> <li>• <del>June 2017 – Flushed system</del></li> <li>• August 2017 – Installed blow-off</li> <li>• September 2017 – Started distribution and POE total and soluble sampling</li> <li>• Continuation of the soluble/insoluble Fe/Mn sampling</li> <li>• December 2017 – Added raw sample data</li> <li>• December 2017 – Cleaned hydropneumatic storage tank</li> <li>• December 2017 installed cartridge filters at Well #1 and #2.</li> </ul>	<ul style="list-style-type: none"> <li>• Continue water main flushing efforts</li> <li>• Continue investigation efforts</li> </ul>
Approved GPM (30)		
Avg. Quarterly Runtime (0 hrs. per day)		
<p><b><u>Comments:</u></b></p> <p>Aqua does not run this well. Optimizing seaquest is an option for the raw Mn, however, there's not enough soluble Fe to stay below the sMCL. Aqua will continue to work with the ORC in optimizing seaquest for the Mn while going ahead and submitting the executive summary for greensand filtration at well #1 in 2018 as part of the Aqua water quality plan.</p>		




Mr. W, Allen Hardy  
June 27, 2018  
Briarwood/Kildaire Subdivision Quarterly Update

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Aqua is committed to providing water to its customers that meets their expectations at a reasonable cost. If you have any questions or comments, please contact me at (919) 653-6982.

Sincerely,



Robert Krueger  
Area Manager  
Aqua North Carolina, Inc.

cc: David Furr  
State of North Carolina  
Department of Commerce  
Utilities-Public Staff

Table 2 - Briarwood Kildaire Well #1 Sample Data

Date	Avg. Sample Week Run Time	* Fe Raw Total	Fe Raw Sol	Mn Raw Total	Mn Raw Sol	Total Fe POE	Sol. Fe POE	Total Fe Dist.	Sol Fe Dist.	Total Mn POE	Sol Mn POE	Total Mn Dist.	Sol Mn Dist.	Raw NTU	POE NTU
1/6/2016	5.8					0.95				0.17					
11/8/2016	7.5														
4/18/2017	6.9													<0.50	<0.50
7/18/2017	7.5													2.3	1.6
9/13/2017	6.26													4.3	2.9
10/2/2017	8					0.558	0.157	0.43	0.0269	0.151	0.128	0.118	0.0885		
10/17/2017	6					0.32	0.0911	0.195	0.075	0.0931	0.102	0.102	0.069		
11/1/2017	6.5					0.198	0.022	0.186	<0.0220	0.084	0.0322	0.0756	0.0278		
11/15/2017	6					0.183	0.0705	0.182	0.0815	0.0828	0.0612	0.0814	0.0665		
11/15/2017	6					0.797	0.0575	0.317	0.0247	0.197	0.203	0.133	0.0312		
12/19/2017	0	0.431	0.0415	0.114	0.118					0.255	0.0547	0.254	0.065		
1/11/2018	0	1.66	0.0374	0.733	0.737					0.691	0.0371	0.678	0.0399		
2/7/2018	0	4.05	0.0225	0.348	0.33					2.16	0.0352	2.1	0.0269		
3/6/2018	0	1.47	<0.0220	0.22	0.217					1.09	0.0417	1.37	0.0647		
4/3/2018	0	1.2	<0.0220	0.388	0.369	4.58	<0.0220	1.46	0.0362	0.44	0.365	0.314	0.245		
5/1/2018	0	0.396	0.00855	0.07	0.0672	0.374	0.0463	0.37	0.0568	0.0615	0.0533	0.0616	0.0526		

Table 3 - Briarwood Kildaire Well #1 Customer Complaints									
SO	SO Type	CSR Notes	Date of SO	Completion Date	Premise	Address	City State Zip	Subdivision	FSR Notes
AQUA received zero customer complaints for the Q2- 2018									



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June 27, 2018

Mr. W. Allen Hardy  
Engineering Supervisor  
Public Water Supply Section  
Raleigh Regional Office, NCDEQ  
1628 Mail Service Center  
Raleigh, NC 27699-1628

Re: Notice of Deficiency - Quarterly Status Report  
Iron and Manganese Concentration  
Cotesworth Down/Kensington Manor Well# 2: P05  
Wake County  
Water System No: NC0392125

Dear Mr. Hardy:

Aqua North Carolina, Inc. (Aqua) received the above-referenced letter dated February 8, 2016, regarding elevated concentrations of iron (Fe) and manganese (Mn) at Cotesworth Down/Kensington Manor Well #2, P05. The Cotesworth Down/Kensington Manor master system is comprised of four wells and four points of entry (POE). The current number of customers served is 192 and the system is approved to serve 192 connections.

Aqua has compiled the requested information in a table format as follows:


- Table 1 provides a summarization of well information, completed activities and planned activities.
- Table 2 (Attachment 2) provides a summary of raw, POE and distribution iron and manganese samples collected as part of the ongoing Inorganic Chemical Analyses (IOC).
- Table 3 (Attachment 3) provides a summary of customer complaint information.

**Table 1 – Well Information, Completed Activities and Planned Activities**

<u>Well Name and No.</u>	<u>Completed Activities</u>	<u>Planned Activities</u>
Cotesworth Down Well #2 (P05)	<ul style="list-style-type: none"> <li>February 2014 – Started using SeaQuest</li> <li>February 2015 – Installed cartridge filter</li> </ul>	<ul style="list-style-type: none"> <li>2018 – Submit executive summary for greensand filtration</li> <li>Continue water main flushing efforts</li> </ul>
Approved GPM (33)	<ul style="list-style-type: none"> <li>April 2017 – Flushed system</li> <li>September 2017 – Started distribution and POE total and soluble sampling</li> </ul>	
Avg. Quarterly Runtime (6.38 hrs. per day)	<ul style="list-style-type: none"> <li>December 2017 – Added raw sample data</li> <li>February 2018 – Cleaned hydro pneumatic tank</li> </ul>	
<b><u>Comments:</u></b>		
Aqua will be submitting an executive summary to the public staff for greensand filtration approval in 2018 as part of the Aqua water quality plan.		

Aqua is committed to providing water to its customers that meets their expectations at a reasonable cost. If you have any questions or comments, please contact me at (919) 653-6982.

Sincerely,

  
 Robert Krueger  
 Area Manager  
 Aqua North Carolina, Inc.

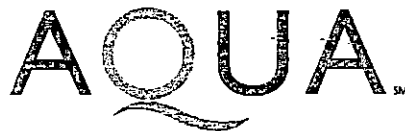
cc: David Furr  
 State of North Carolina  
 Department of Commerce  
 Utilities-Public Staff

Table 2 - Cotesworth Well #2 Sample Data

Date	Avg. Sample Week Run Time	Fe Raw Total	Fe Raw Sol	Mn Raw Total	Mn Raw Sol	Total Fe POE	Sol. Fe POE	Total Fe Dist.	Sol Fe Dist.	Total Mn POE	Sol Mn POE	Total Mn Dist	Sol Mn Dist.	Raw NTU	POE NTU
2/14/2017	4.2					0.8				0.2					
1/16/2017	3.9													5.7	0.047
2/6/2017	4.1					1.17				0.232					
5/10/2017	3.8													6.5	0.46
9/13/2017	7.52					1.82	0.0257	0.0625	0.0258	0.263	0.16	0.0125	0.00414		
9/28/2017	8.36					0.924	0.13	0.589	0.215	0.199	0.11	0.134	0.0954		
10/5/2017	10.52					0.733	0.32	0.573	0.0766	0.233	0.203	0.17	0.135		
10/23/2017	8.46					3.59	0.116	0.515	0.258	0.377	0.151	0.124	0.106		
12/6/2017	4.34					0.897	0.0464	0.806	0.388	0.262	0.206	0.172	0.149		
12/14/2017	4.12	0.98	0.322	0.22	0.261	0.758	0.0251	1.96	0.157	0.233	0.193	0.392	0.121		
1/25/2018	4.45	0.979	0.304	0.242	0.234	2.91	0.068	0.54	0.148	0.859	0.206	0.0384	0.0149		
2/15/2018	5.1	0.997	0.145	0.245	0.243	0.952	0.0614	0.582	0.0738	0.243	0.195	0.0427	0.0227		
3/19/2018	3.5	0.955	0.347	0.224	0.282	1.03	0.221	0.429	0.178	0.232	0.15	0.0338	0.218		
4/23/2018	3.29	1.01	0.143	0.235	0.231	0.899	0.0243	0.676	0.0502	0.235	0.173	0.133	0.0184		
5/21/2018	3.5	0.892	0.0509	0.225	0.23	0.87	<.0220	0.33	0.0239	0.219	0.156	0.0556	0.00607		

Table 3 - Cotesworth Well #2 Sample Data

SO	SO Type	CSR Notes	Date of SO	Completion Date	Premise	Address	City State Zip	Subdivision	FSR Notes
10539931	LABD-S	CONNIE HAS BROWN WTR ALL THROUGHOUT HOME	4/27/2018	4/27/2018	568471	3101 DONLIN DR	WAKE FOREST, NC 27587-5561	KIMMON PLACE	Brown water. cl2 0.59, ph 7.1, po4 1.55, fe 0.29, mn 0.111. ran outside Faucet till clear. system scheduled to be flushed next week FSR:thompss, EVT:Lab
10545082	LABD-S	LORETTA CLD TO ADV WATER IS BROWN	5/1/2018	5/1/2018	614834	8497 FALKIRK RDG	WAKE FOREST, NC 27587	KIMMON PLACE	
10539931	LABD-S	CONNIE HAS BROWN WTR ALL THROUGHOUT HOME	4/27/2018	4/27/2018	568471	3101 DONLIN DR	WAKE FOREST, NC 27587-5561	KIMMON PLACE	Brown water. cl2 0.59, ph 7.1, po4 1.55, fe 0.29, mn 0.111. ran outside Faucet till clear. system scheduled to be flushed next week FSR:thompss, EVT:Lab
10545082	LABD-S	LORETTA CLD TO ADV WATER IS BROWN	5/1/2018	5/1/2018	614834	8497 FALKIRK RDG	WAKE FOREST, NC 27587	KIMMON PLACE	



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June 27, 2018

Mr. W. Allen Hardy  
Engineering Supervisor  
Public Water Supply Section  
Raleigh Regional Office, NCDEQ  
1628 Mail Service Center  
Raleigh, NC 27699-1628

Re: ~~Notice of Deficiency - Quarterly Update~~  
~~Iron and Manganese Concentration~~  
~~Duncan Ridge Subdivision, Wake County~~  
WSF ID No.: Well #5, P05  
Water System No: NC4092063

Dear Mr. Hardy:

Aqua North Carolina, Inc. (Aqua) received the above-referenced letter dated July 12, 2016, regarding elevated concentrations of Iron (Fe) and Manganese (Mn) at Duncan Ridge Well #5, P05. The Duncan Ridge water system is comprised of three active wells and two points of entry (POE). The current number of customers served is 88 and the system is approved to serve 90 connections.

Aqua has compiled the requested information in a table format as follows:

- Table 1 provides a summarization of well information, completed activities and planned activities.
- Table 2 (Attachment 2) provides a summary of raw, POE and distribution iron and manganese samples collected as part of the ongoing Inorganic Chemical Analyses (IOC).
- Table 3 (Attachment 3) provides a summary of customer complaint information.



UPDATED QUARTERLY STATUS REPORT

Table 1 – Well Information, Completed Activities and Planned Activities

<u>Well Name and No.</u>	<u>Completed Activities</u>	<u>Planned Activities</u>
Duncan Ridge Well #5 (P05)	<ul style="list-style-type: none"> <li>• August 2014 – Started using SeaQuest</li> <li>• March 2017 – Installed auto blow-off</li> <li>• April 2017 – Flushed system</li> <li>• September 2017 – Started Distribution and POE total and soluble sampling</li> <li>• December 2017 – Added raw sample data</li> <li>• January 2018 – Cleaned hydropneumatic storage tank</li> </ul>	<ul style="list-style-type: none"> <li>• Aqua will submit executive summary for greensand filtration in 2018</li> <li>• Continue water main flushing efforts</li> </ul>
Approved GPM (33)		
Avg. Quarterly Runtime (1.28 hrs. per day)		
<u>Comments:</u>		
Aqua will be submitting the executive summary for greensand filtration at well #5 in 2018 as part of the Aqua water quality plan.		

Aqua is committed to providing water to its customers that meets their expectations at a reasonable cost. If you have any questions or comments, please contact me at (919) 653-6982.

Sincerely,



Robert Krueger  
 Area Manager  
 Aqua North Carolina, Inc.

cc: David Furr  
 State of North Carolina  
 Department of Commerce  
 Utilities-Public Staff

DUNCAN RIDGE-4092063

Date	Avg. Sample Week Run Time	P05R-Well-5 Raw-Fe Lab	P05R-Well-5 Raw-Fe-Diss	P05-Well-5-Fe Lab	P05-Well-5-Fe-Diss	D01-Distribution System-Fe Lab	D01-Distribution System-Fe-Diss	P05R-Well-5 Raw-Mn Lab	P05R-Well-5 Raw-Mn-Diss	P05-Well-5-Mn Lab	P05-Well-5-Mn-Diss	D01-Distribution System-Mn Lab	D01-Distribution System-Mn-Diss
10/3/2017	2			1.48	0.594	1.45	0.645			0.394	0.361	0.404	0.369
10/17/2017	1			1.67	< 0.022	1.66	0.095			0.419	0.334	0.451	0.359
11/1/2017	0			1.63	0.139	< 0.022	< 0.022			0.404	0.309	0.139	0.138
11/15/2017	0			1.37	0.491	1.11	0.274			0.352	0.302	0.374	0.281
12/19/2017	0.5	1.12	0.0435	1.59	< 0.022	1.13	0.213	0.358	0.387	0.372	0.269	0.361	0.249
1/11/2018	0.77	1.2	0.104	1.05	0.0909	1.04	0.128	0.35	0.368	0.331	0.112	0.327	0.121
3/6/2018	0.96	1.43	0.0659	1.29	< 0.022	1.22	0.0587	0.382	0.372	0.365	0.176	0.344	0.181
4/3/2018	1	1.49	0.0683	1.34	0.0731	1.12	0.0403	0.395	0.394	0.381	0.209	0.326	0.182
5/1/2018	1.67	1.29	0.114	1.17	0.0075	1.13	< 0.006	0.368	0.356	0.365	0.00618	0.35	0.00104

Table 3 - Duncan Ridge Customer Complaints

SO	SO Type	CSR Notes	Date of SO	Completion Date	Premise	Address	City State Zip	Subdivision	FSR Notes
10472757	LABD-S	TOM-HUSBAND CLD TO REPORT BROWN WATER/ WANTS US TO SEND 2 BOTTLES OF IRON OUTSAYS WE DID IN THE PAST	4/5/2018	4/6/2018	1052924	6316 LAURACA LN	FUQUAY-VARINA, NC 27526	DUNCAN RIDGE	CL 1.3 po4 .9 pH 7.1 Fe .28 MN .048 water was clear upon arrivalLeft door tag and some iron out for customerFSR:johnsos, EVT:Lab



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June 27, 2018

Mr. W. Allen Hardy  
Engineering Supervisor  
Public Water Supply Section  
Raleigh Regional Office, NCDEQ  
1628 Mail Service Center  
Raleigh, NC 27699-1628

Re: ~~Notice of Deficiency - Quarterly Update~~  
~~Iron and Manganese Concentration~~  
~~Eagle Creek Subdivision, Wake County~~  
WSF ID No.: Well #3, P03  
Water System No: NC4392128

Dear Mr. Hardy:

Aqua North Carolina, Inc. (Aqua) received the above-referenced letter dated July 12, 2016, regarding elevated concentrations of Iron (Fe) and Manganese (Mn) at Eagle Creek Well #3, P03. The Eagle Creek water system is comprised of three active wells and three points of entry (POE). The current number of customers served is 89 and the system is approved to serve 89 connections.

Aqua has compiled the requested information in a table format as follows:

- Table 1 provides a summarization of well information, completed activities and planned activities.
- Table 2 (Attachment 2) provides a summary of raw, POE and distribution iron and manganese samples collected as part of the ongoing Inorganic Chemical Analyses (IOC).
- Table 3 (Attachment 3) provides a summary of customer complaint information.

**UPDATED QUARTERLY STATUS REPORT**

**Table 1 – Well Information, Completed Activities and Planned Activities**

<u>Well Name and No.</u>	<u>Completed Activities</u>	<u>Planned Activities</u>
Eagle Creek Well #3 ( P03)	<ul style="list-style-type: none"> <li>• <del>September 2015</del> – Started using SeaQuest</li> <li>• <del>April 2017</del> – Flushed system</li> <li>• June 2017 – Installed automatic blow-off at the well.</li> <li>• September 2017 – Started distribution and POE total and soluble sampling</li> <li>• December 2017 – Cleaned hydropneumatic storage tank</li> <li>• December 2017 – Added raw sample data</li> <li>• Installed cartridge filter Q2-2018</li> </ul>	<ul style="list-style-type: none"> <li>• Continue investigation efforts</li> <li>• Continue water main flushing efforts</li> </ul>
Approved GPM (29)		
Avg. Quarterly Runtime (3.32 hrs. per day)		

**Comments:**

The NOD was originally issued due to high concentrations of Fe and Mn. Sample results indicate that the Fe and Mn are mostly soluble. The field investigation determined that the treatment was set-up properly; however, the seaquest was not fully optimized. The operator re-ran the calculations which proved to be the case. Aqua will continue to sample and to optimize seaquest.

Mr. W. Allen Hardy  
June 27, 2018  
Eagle Creek Subdivision Quarterly Update

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Aqua is committed to providing water to its customers that meets their expectations at a reasonable cost. If you have any questions or comments, please contact me at (919) 653-6982.

Sincerely,



Robert Krueger  
Area Manager  
Aqua North Carolina, Inc.

cc: David Furr  
State of North Carolina  
Department of Commerce  
Utilities-Public Staff

EAGLE CREEK-4392128

Date	Avg. Sample Week Run Time	P03R-Well-3 Raw-Fe Lab	P03R-Well-3 Raw-Fe-Diss	P03-Well-3-Fe Lab	P03-Well-3-Fe-Diss	D01-Distributio n System-Fe Lab	D01-Distributio n System-Fe-Diss	P03R-Well-3 Raw-Mn Lab	P03R-Well-3 Raw-Mn-Diss	P03-Well-3-Mn Lab	P03-Well-3-Mn-Diss	D01-Distributio n System-Mn Lab	D01-Distributio n System-Mn-Diss
10/16/2017	2.3			0.773	0.389	1.07	0.171			0.145	0.103	0.101	0.0305
11/3/2017	6			0.219	0.486	0.75	0.654			0.112	0.0931	0.151	0.128
11/16/2017	4			0.823	0.774	0.395	0.335			0.157	0.151	0.0196	0.0157
12/18/2017	4.5	0.82	0.704	0.785	0.71	0.334	0.525	0.153	0.158	0.139	0.141	0.0284	0.0442
1/11/2018	3.6	0.909	0.559	0.798	0.0394	0.799	0.107	0.146	0.142	0.145	0.0253	0.0883	0.0172
3/5/2018	2.97	0.896	0.809	0.751	0.532	0.642	0.129	0.143	0.145	0.112	0.0822	0.0521	0.0103
4/6/2018	2.16	0.91	0.771	0.856	0.83	0.678	0.487	0.16	0.159	0.153	0.153	0.0511	0.0361
5/2/2018	5.29	0.807	0.553	0.763	0.616	0.599	0.432	0.149	0.145	0.146	0.132	0.0475	0.0357

Table 3 - Eagle Creek Customer Complaiants

SO	SO Type	CSR Notes	Date of SO	Completion Date	Premise	Address	City State Zip	Subdiviston	FSR Notes
10559585	LABD-S	PLS INVESTIGATE THE COLOR YELLOW ON THE WATER RUSTY LIKE	5/9/2018	5/9/2018	590045	5732 THISTLETON LN	RALEIGH, NC 27606-8967	EAGLE CREEK	Cl2 1.2 PO4 1.4 ph 7.2 fe 0.87/0.22 MN 0.135/0.064 hard 102Cust filling pool slowly, dirtied up new liner with high mineral residual, Flushed service @meter/&hose bibe to clear after 30min cust last home/BO



I/A

Aqua North Carolina, Inc.  
Docket No. W-218, Sub 497  
Aqua North Carolina, Inc.  
Public Staff Engineering Data Request No. 62

Requested by: Charles Junis Email: charles.junis@psncuc.nc.gov  
Date requested: September 6, 2018 Phone: 919-733-0891  
Due date: ASAP

Subject of Data Request: Rebuttal Becker

**For spreadsheet responses, please provide in Excel format, if possible, and include all links to other files and working formulas. For other documents, please provide in Microsoft Word format or in searchable PDF format if possible. In addition, please include (1) the name and title of the individual who has the responsibility for the subject matter addressed therein, and (2) the identity of the person making the response by name, occupation, and job title.**

1. On page 3, lines 16-19, please provide a list of the "approximately 80 new filters, including 31 greensand filters", including the water system name, well name and number, type of filter, and the date the filter was operational.

ANSWER:

Please see attached Excel spread sheet.

2. On page 4, lines 1-5, please provide a complete copy of the "Customer Communications Plan." In addition, please provide the date the Customer Communications Plan was completed and considered a final version.

ANSWER:

The Communications Plan will proceed along with and accompany the Water Quality Operations Plan to addresses Iron and manganese with educational materials and updates to the website on projects.

The bulleted items in Mr. Becker's testimony are those initiatives that have been completed to date. However, Aqua NC recognizes its ongoing need and obligation to communicate on this topic in tandem with implementing its Operations Plan, well into the future. The Plan is an ongoing, dynamic guideline for action.

3. On page 5, lines 4-13, Mr. Becker contends that the number of customer statements is an indication that "its efforts at improving the Company's

secondary water quality are bearing fruit." Please provide the number of customer complaints pertaining to water quality (discolored) received by Aqua for the periods of August 2, 2013 through January 15, 2014 and March 7, 2018 through August 21, 2018.

ANSWER:

In Mr. Becker's testimony, he quoted from Mr. Junis's representation of the numbers of customer statements. Mr. Becker also made plain that his observation was not "...a highly scientific approach..." He also said that his observations are instructional and positive. In other words, this is his common-sense opinion based upon his review of Mr. Junis's numbers.

As to the balance of the questions, Aqua objects to them as being burdensome, irrelevant, and largely duplicative of information already provided via extensive discovery and via a long series of customer reports, filed with the Commission.

4. On page 11, lines 14-16, please provide any and all of the "unfortunate example[s] of the Public Staff raising service quality issues designed to call into question the integrity of Aqua's management decisions" which Mr. Becker contends have occurred. In addition, please provide the basis of Mr. Becker's conclusion that these examples were "designed" for such a purpose. When preparing your response, please produce all documents which you contend support this conclusion, including, but not limited to, all workpapers and analyses prepared by Mr. Becker.

ANSWER:

The testimony given at page 10, line 20 through page 11, line 14 describes some of the basis for Mr. Becker's opinion. This is clearly an opinion, and a reflection of Mr. Becker's observation and experience of the Public Staff's tone and manner of criticism and comment---widely disseminated and published---concerning Aqua.

5. On page 26, lines 13-15, please provide basis for Mr. Becker's conclusion that "Mr. Junis's used and useful argument is a smokescreen to justify an inappropriate imputation of CIAC that was never collected, and if his proposal is accepted, will never be collected." When preparing your response, please produce all documents which you contend support this conclusion, including, but not limited to, all workpapers and analyses prepared by Mr. Becker.

OBJECTION. This is in the nature of a cross examination question, is based on Mr. Becker's opinion and is not based on information retrieved from

documents. Mr. Becker is simply stating that the adjustment made by Mr. Junis does not turn on whether the property is used and useful but rather, involves an imputation of CIAC, which Mr. Becker believes to be inappropriate.

6. Please provide all the dates that Aqua conveyed copies to the Public Staff of communications between Aqua and DEQ as required by the Ordering paragraph no. 9 of the Commission's Order dated May 2, 2014, in Docket No. W-218, Sub 363.

ANSWER:

Aqua previously conveyed copies to the Public Staff of its quarterly DEQ/NOD Reports. These quarterly NOD Reports were not required by DEQ until 2016. Initially, and as an oversight, Aqua failed to provide copies of these NOD Reports to the Public Staff. They are public records, readily available, and when requested by the Public Staff, Aqua began and has continued to provide them.

Aqua seeks clarification from the Commission in this case regarding the requirements to provide DEQ communications. See Mr. Becker's Rebuttal testimony, pages 7-9.

7. Please provide for each person employed as the Aqua Central Area Manager from June 1, 2004, to date:

- a. The name of the person;
- b. The date that person became the Aqua Central Area Manager; and
- c. The date that person was no longer employed as the Aqua Central Area Manager.

ANSWER:

Objection; the question appears to have no discernable relationship to Mr. Becker's Rebuttal Testimony.

8. Please provide for each person employed as the Aqua statewide Director of Operations from June 1, 2004, to date:

- d. The name of the person;
- e. The date that person became the Aqua statewide Director of Operations; and

f. The date the person was no longer employed as the Aqua-statewide Director of Operations.

ANSWER:

Objection: the question appears to have no discernable relationship to Mr. Becker's Rebuttal Testimony.

**Grantmyre, William**

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**From:** Grantmyre, William  
**Sent:** Sunday, September 09, 2018, 2:08 PM  
**To:** Jo Anne Sanford (sanford@sanfordlawoffice.com); 'BenninkLawOffice@aol.com'  
**Subject:** Aqua Sub 497 EDR 62 Items 7 & 8

Jo Anne and Bob

Aqua's response to EDR 62 Items 7 & 8 were objected to by Aqua stating

"Objection, the question appears to have no discernible relationship to Mr. Becker's Rebuttal Testimony."

Items requested the names and employment dates of Aqua's Central Area Manager from June 1, 2004 to date (Item 7) and Aqua's statewide Director of Operations from June 1, 2004 to date (Item 8).

A portion of Mr. Becker's Rebuttal Testimony that this relates to is page 11 lines 14-16 which states

"This is another unfortunate example of the Public Staff raising service quality issues designed to call into questions the integrity of Aqua's management decisions."

The Public Staff has provided the relationship and requests that Aqua provide the requested information which is readily accessible for Aqua.

Jill Grantmyre  
Staff Attorney- Public Staff  
919-733-0977

T/A

Docket No. W-218, Sub 497

**Annual Revenue Requirement Cost Per Aqua Uniform  
Rate Water Customer for Manganese Greensand Filtration  
Compared to Sequestration with Polyphosphate or SeaQuest**

Manganese Greensand Filtration Annual Revenue Requirement

Capital Cost for 80 Manganese Greensand Filters totaling \$28,000,000  
(Crockett Direct Testimony Page 10, Lines 6-8 and Page 11, Line 7).

Annual Depreciation: 4% Spanos Aqua Depreciation Study Account 320.00

Annual Depreciation: \$28,000,000 x 4% = \$1,120,000

Plant Cost Net of 4 Years Accumulated Depreciation = \$23,520,000

	Capital Structure	Rate Base	Cost Rate	Retention Factor	Revenue Requirement
Debt	50%	11,760,000	4.63%	.99860	\$545,251
Equity	50%	11,760,000	9.20%	.765227	<u>\$1,413,854</u>
				Total	\$1,959,105
Add Annual Depreciation					<u>\$1,120,000</u>
Total Revenue Requirement					\$3,079,105

Assume growth to 65,000 Customers.

Revenue Requirement	Customers	Annual Revenue Requirement Per Customer
\$3,079,105 +	65,000	<u>\$47.37</u>

Sequestration with Polyphosphate or SeaQuest Annual Revenue Requirement

Aqua Test Year Ending  
September 30, 2017

Total Expense for Polyphosphate  
and SeaQuest \$59,236

Account 618345 WT-Chem  
Polyphosphate W-1 Item 2

Test Year Ending

September 30, 2017 723,243

Total Customer Billings

Total Customer Count Average  $723,243 \div 12 \text{ months}$   
= 60,270

Test Year Sequestration Revenue Requirement Per Customer

Annual Cost	Average Number of Customers	Annual Revenue Requirement Per Customer
\$59,236	$\div$ 60,270	= \$0.98

Annual Revenue Requirement Per Customer

Manganese Greensand	\$47.37
Sequestration Polyphosphate or SeaQuest	\$0.98

Summary: Manganese Greensand Filtration is 48.3 times greater than Sequestration.  
(\$47.37  $\div$  \$0.98 = 48.3).

Conclusion: The 48.3 times greater is much more than the 6 times greater inferred on  
Crockett Direct Page 10, Lines 8-12.

Public Staff  
Becker Rebuttal Cross Exam Exhibit 6  
Docket No. W-218 Sub 497 I/A

NEUSE COLONY/FLOWERS  
WASTEWATER CAPACITY  
PURCHASE

AQUA



## BACKGROUND

- In 1999 Aqua (then Heater Utilities), Johnston County & Rebecca Flowers (Neuse Colony/Flowers Plantation developer) entered into a three party agreement
- Provide water & wastewater treatment services for full buildout of the planned development community consisting of 1,500 acres located in Johnston County, NC

- The Circumstances:

- Existing NPDES discharge of 750,000 gallons
- Aqua is provided via this contract the opportunity through 2022 to purchase 500,000 gallons of wastewater capacity from Johnston County at the then “prevailing” rate
- Capacity purchase is required to service the continual & projected growth rate

## ▪ Options for Expansion

- Build WWTF Expansion, Purchase Capacity at 2022 Expiration – Approx \$19.7 Million Total Cost
- Purchase Capacity as Needed, Then Build WWTF Expansion as Needed – Approx \$19.7 Million Total Cost
- Purchase Capacity Now, Then Build WWTF Expansion as Needed – Approx \$15.0 Million Total Cost

■ The Dilemma:

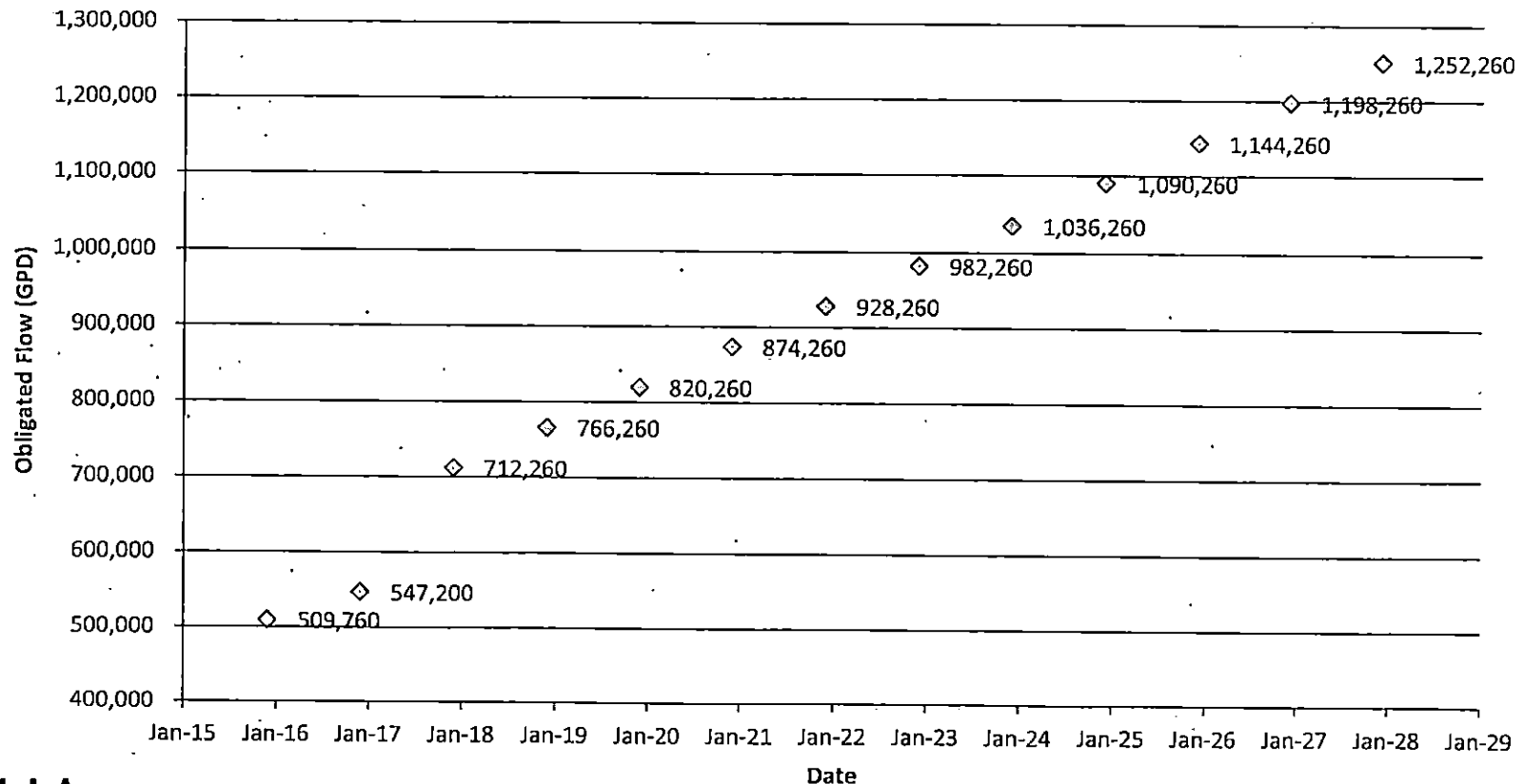
- Significant price increase expected in June/July '18 timeframe accelerating an evaluation now of when to purchase this capacity
- Option to purchase capacity expires in 2022
- Growth rate dictates need for additional capacity
- Current flows > 80% and DEQ letter (notification)

▪ Obligated Flow Projections:

▪ NCDEQ Notification of Over-Obligation

▪ Response Due June 1, 2018

**Projected Obligated (Permitted) Flows at Neuse Colony WWCS**



Should Aqua purchase Capacity prior to price increase?

Considerations:

- Current Cost of Capacity:
  - Significantly lower → \$8.48 vs \$18 per gal
  - Potential to reduced overall long term rate impact
  
- Obligated Flow (REU's)

## Capacity Cost – Before & After Price Increase

- Before: 500,000 gals x \$8.48/gal = \$4.2M
- After: 500,000 gals x \$18.00/gal = \$9.0M
- Price differential → \$4.8M

- Aqua values our customers and impacts to their rates
  - Prudent to customers
  
- Imperative for Aqua to make sound business decisions
  - Prudent to shareholders



## The Proposal:

Work with Public Staff to achieve a mutually beneficial decision that provides a consumer benefit AND does not penalize Aqua

**10-Year Revenue Requirement, Purchase Prior to Price Increase**

# of Gallons of Capacity	<u>500,000</u>	
Cost of Conveyance	\$ 3.14	Current Rate
Cost of Treatment	\$ 5.34	Current Rate
Total Price/gpd.	<u>\$ 8.48</u>	
Weighted Avg Cost of Cap	<u>9.482%</u>	

Period Ending	Total Plant Capacity	% Utilized	Conveyance Cost Spent	Treatment Cost Spent	Cumulative Capital Spent	Capital Utilized	Revenue Requirement
12/31/2018	850,000	90.15%	\$ 1,570,000	\$ 2,670,000	\$ 4,240,000	\$ 4,240,000	\$ 402,037
12/31/2019	850,000	96.50%	\$ 1,570,000	\$ 2,670,000	\$ 4,240,000	\$ 4,240,000	\$ 402,037
12/31/2020	850,000	100.00%	\$ 1,570,000	\$ 2,670,000	\$ 4,240,000	\$ 4,240,000	\$ 402,037
12/31/2021	850,000	100.00%	\$ 1,570,000	\$ 2,670,000	\$ 4,240,000	\$ 4,240,000	\$ 402,037
12/31/2022	850,000	100.00%	\$ 1,570,000	\$ 2,670,000	\$ 4,240,000	\$ 4,240,000	\$ 402,037
12/31/2023	850,000	100.00%	\$ 1,570,000	\$ 2,670,000	\$ 4,240,000	\$ 4,240,000	\$ 402,037
12/31/2024	850,000	100.00%	\$ 1,570,000	\$ 2,670,000	\$ 4,240,000	\$ 4,240,000	\$ 402,037
12/31/2025	850,000	100.00%	\$ 1,570,000	\$ 2,670,000	\$ 4,240,000	\$ 4,240,000	\$ 402,037
12/31/2026	850,000	100.00%	\$ 1,570,000	\$ 2,670,000	\$ 4,240,000	\$ 4,240,000	\$ 402,037
12/31/2027	850,000	100.00%	\$ 1,570,000	\$ 2,670,000	\$ 4,240,000	\$ 4,240,000	\$ 402,037
							<u>\$ 4,020,368</u>

**10-Year Revenue Requirement, Purchase After Price Increase**

# of Gallons of Capacity	<u>500,000</u>	
Cost of Conveyance	\$ 5.00	Future Rate
Cost of Treatment	\$ 13.00	Future Rate
Total Price/gpd	<u>\$ 18.00</u>	
Weighted Avg Cost of Cap	<u>9.482%</u>	

Period Ending	Total Plant Capacity	% Utilized	Conveyance Cost Spent	Treatment Cost Spent	Cumulative Capital Spent	Capital Utilized	Revenue Requirement
12/31/2018	375,000	100%	\$ -	\$ 325,000	\$ 325,000	\$ 325,000	\$ 30,817
12/31/2019	425,000	100%	\$ 2,500,000	\$ 975,000	\$ 3,475,000	\$ 3,475,000	\$ 329,500
12/31/2020	475,000	100%	\$ 2,500,000	\$ 1,625,000	\$ 4,125,000	\$ 4,125,000	\$ 391,133
12/31/2021	525,000	100%	\$ 2,500,000	\$ 2,275,000	\$ 4,775,000	\$ 4,775,000	\$ 452,766
12/31/2022	850,000	100%	\$ 2,500,000	\$ 6,500,000	\$ 9,000,000	\$ 9,000,000	\$ 853,380
12/31/2023	850,000	100%	\$ 2,500,000	\$ 6,500,000	\$ 9,000,000	\$ 9,000,000	\$ 853,380
12/31/2024	850,000	100%	\$ 2,500,000	\$ 6,500,000	\$ 9,000,000	\$ 9,000,000	\$ 853,380
12/31/2025	850,000	100%	\$ 2,500,000	\$ 6,500,000	\$ 9,000,000	\$ 9,000,000	\$ 853,380
12/31/2026	850,000	100%	\$ 2,500,000	\$ 6,500,000	\$ 9,000,000	\$ 9,000,000	\$ 853,380
12/31/2027	850,000	100%	\$ 2,500,000	\$ 6,500,000	\$ 9,000,000	\$ 9,000,000	\$ 853,380
							<u>\$ 6,324,494</u>

## Our Recommendation:

- Aqua proposes to purchase capacity before the major price increase, BUT
- Must recover incremental carrying costs

Let's discuss.

*Johnston County*

DEPARTMENT OF PUBLIC UTILITIES

POST OFFICE BOX 2263  
SMITHFIELD, N.C. 27577  
(919) 989-5075

August 17, 2009

Mr. Tom Roberts, President  
Aqua North Carolina  
202 McKenan Court  
Cary, NC 27511

RE: **Purchase of Wastewater Capacity in the Central Johnston County Regional WWTP**

Dear Mr. Roberts:

We wish to follow-up to a comment you made during our August 4<sup>th</sup> conference with Becky Flowers concerning the possibility of Aqua purchasing wastewater transmission and treatment capacity in the County system. Our understanding of your position is that Aqua America may be interested in purchasing capacity in the County's system, if payment terms can be arranged consistent with the County's 20-year, low interest state revolving fund loan. Accordingly, we have completed preliminary cost analyses and enclosed is a summary of the cost information. Please understand that construction of improvements is not yet 100% complete, and unforeseen cost contingencies could arise, which would alter the cost share calculations.

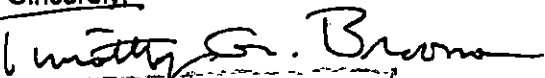
The unit capital cost of transmission facilities for an upgraded wwps and the new force mains between Aqua's wwtp and the County interceptor on the Neuse River in Smithfield is \$1.46 per gpd of average daily flow with flow equalization and \$3.65 per gpd without flow equalization. The unit capital cost of wastewater treatment facilities expansion is \$4.83 per gpd of average daily flow. Thus, the total capital value of an allocation would be \$6.29 per gpd with flow equalization and \$8.48 without flow equalization. We are providing the cost option for flow equalization since Aqua could possibly accomplish this using its existing plant infrastructure.

The terms of the SRF loans are 20 years at 2.1% a.p.r. with equal annual payments. Thus, the annual cost with flow equalization for a 0.50 mgd allocation would be \$194,200. Without flow equalization, the annual cost would be \$261,800.

Our current bulk wastewater transmission and treatment commodity charge is \$2.45 per 1,000 gallons.

Please let us know if you wish to explore the possibility of a wastewater capacity allocation purchase in more detail.

Sincerely,

  
Timothy G. Broome, P.E.  
Director of Utilities and Engineering

cc: Rick J. Hester  
Chandra C. Coats, P.E.  
Rebecca Flowers

**Wastewater Transmission & Treatment  
Capacity Cost Analysis**

<u>Item</u>	<u>Description</u>	<u>Total</u>
<b>1</b>	<b>Unit Cost of 16" Force Main (FM) from NC 42 East to US 70 (Bus.) at North Tech Park and 42 East WWPS Upgrade</b>	
	Construction	1,433,000
	Technical Service	113,000
	Easements	25,000
	SRF Loan Closing	28,000
	<b>Total</b>	<b>1,699,000</b>
	Future WWPS Upgrade	801,000
	<b>Total Project Cost</b>	<b>2,400,000</b>

Capacity = 3.0 mgd (peak flow)

Unit cost based on peak capacity = \$0.80 per gpd

If peak to average flow ratio is 2.5:1, then unit cost based on avg. flow = \$2.00 per gpd

<b>2</b>	<b>Unit Cost of 16" FM from US70 (Bus) at North Tech Park to Swift Creek Road</b>	
	Construction	\$1,111,000
	Technical Services	122,000
	Easements	27,000
	SRF Loan Closing	29,000
	<b>Total</b>	<b>\$1,289,000</b>

Capacity = 3.5 mgd (peak flow)

Unit cost based on peak capacity = \$0.37 per gpd

If peak to avg. flow ratio is 2.5:1, then unit cost based on avg. flow = \$0.92 per gpd

<b>3</b>	<b>Unit Cost of 20" FM from Swift Creek Road to Neuse River Parallel FM</b>	
	Construction	\$1,251,000
	Technical Services	121,000
	Easements	27,000
	SRF Loan Closing	29,000
	<b>Total</b>	<b>\$1,428,000</b>

Capacity = 4.9 mgd (peak flow)

Unit cost based on peak capacity = \$0.29 per gpd

If peak to avg. flow ratio is 2.5:1, then unit cost based on avg. flow = \$.73 per gpd

<u>Item</u>	<u>Description</u>	<u>Total</u>
4	<b>2.5 mgd Wastewater Treatment Plant Expansion:</b>	
	Construction	\$10,790,000
	Technical Services	
	a. Hazen and Sawyer	840,000
	b. Dewberry Engineers	106,000
	c. Keen Management	111,360
	<b>Subtotal - Technical Services</b>	<b>\$11,847,360</b>
	SRF Loan Closing	\$237,640
	<b>Total Project Cost</b>	<b>\$12,085,000</b>

Expanded Capacity = 2.5 mgd  
Unit cost based on capacity = \$4.83 per gpd

**5 Aqua America Cost Share:**

Transmission With Flow Equalization ( $\$0.80 + \$0.37 + \$0.29$ ) per gpd = \$1.46 per gpd  
Transmission Without Flow Equalization ( $\$2.00 + \$0.92 + \$0.73$ ) per gpd = \$3.65 per gpd  
Treatment = \$4.83 per gpd  
Total Cost With Flow Equalization = \$6.29 per gpd  
Total Cost Without Flow Equalization = \$8.48 per gpd



**Aqua Wastewater Capacity Purchase**

**Projected Costs**  
**January 10, 2018**

**Public Staff**  
**Becker Rebuttal Cross Exam Exhibit** \_\_\_  
**Docket No. W-218 Sub 497**

WWTP Capacity (Based on 2006 Expansion)      \$ 5.34 /gpd

**Option No. 1**

*Transmission with County Providing Pumping and Flow Eq:*

42 East WWPS and Flow Eq Facility	\$ 1.84 /gpd *
NC 42 East to North Tech Park	\$ 0.42 /gpd
North Tech Park to Swift Creek Rd	\$ 0.37 /gpd
Swift Creek Road to Neuse River Parallel FM	\$ 0.29 /gpd
12" Parallel Force Main Under US 70 <i>Interchange</i>	\$ <u>2.06 /gpd *</u>
Total Transmission	\$ 4.98 /gpd
WWTP Capacity	\$ <u>5.34 /gpd</u>
<b>TOTAL OPTION NO. 1</b>	<b>\$ 10.32 /gpd</b>

**Option No. 2**

*Transmission with Aqua Providing Pumping and Flow Eq:*

NC 42 East to North Tech Park	\$ 0.42 /gpd
North Tech Park to Swift Creek Rd	\$ 0.37 /gpd
Swift Creek Road to Neuse River Parallel FM	\$ 0.29 /gpd
12" Parallel Force Main Under US 70 <i>Interchange</i>	\$ <u>2.06 /gpd *</u>
Total Transmission	\$ 3.14 /gpd
WWTP Capacity	\$ <u>5.34 /gpd</u>
<b>TOTAL OPTION NO. 2</b>	<b>\$ 8.48 /gpd</b>

\*Estimated Costs. Project not constructed.

• Peak flow not exceed 1.5 times average flow

*Johnston County*  
DEPARTMENT OF PUBLIC UTILITIES  
POST OFFICE BOX 2283  
SMITHFIELD, N.C. 27577  
(919) 989-5075

~~July 11, 2018~~

Shannon V. Becker, President  
Aqua North Carolina, Inc.  
202 Mckenan Court  
Cary, NC 27511

Re: Purchase of Wastewater Capacity in the Central Johnston County Regional WWTP

Dear Mr. Becker:

It is our understanding that Aqua may be interested in purchasing capacity in the County's wastewater system in accordance with the "Bulk Wastewater Service Agreement for Flowers Plantation Sections I, II and IIIB" dated May 14, 2022. The fee for bulk wastewater capacity is currently \$8.48/gpd for Aqua to discharge into the County's wastewater collection, transmission and treatment system. This capacity fee assumes Aqua will provide flow equalization (peak flow not to exceed 1.5 times average flow), and pumping into the County's transmission system.

The proposed capacity fee is based on the following:

WWTP Capacity (Based on 2006 Expansion)	\$5.34/gpd
Transmission:	
NC 42 East to North Tech Park	\$0.42/gpd
North Tech Park to Swift Creek Rd	\$0.37/gpd
Swift Creek Road to Neuse River Parallel FM	\$0.29/gpd
12" Parallel Force Main Under US 70 Interchange	\$2.06/gpd*
	\$3.14/gpd
<u>Total Capacity Fee</u>	<u>\$8.48/gpd</u>

(\*Estimated Cost. Project not constructed.)

The bulk transmission and treatment commodity charge will be \$3.18 per 1,000 gallons beginning July 1, 2018. Please let me know if you have any questions or need additional information.

Sincerely,

*Chandra C. Farmer*

Chandra C. Farmer, PE  
Director of Utilities

cc: Rick J. Hester

I/A

**Junis, Charles M**

**From:** Dodge, Peggy S. <PSDodge@aquaaamerica.com>  
**Sent:** Thursday, August 23, 2007 3:37 PM  
**To:** 'Rebecca Flowers'  
**Cc:** 'Pat Benson'; Shaw, Rudy C.  
**Subject:** Flowers Agreements, Addendums, & Capacity Fees  
**Attachments:** Pineville West, Phase 2-POD2 081707 FINAL AGREEMENT; PinevilleEastEstates2-41Lots 081707.doc; Addendum-PinevilleEast-PaymentUponRecording.doc; Addendum-PinevilleEastCottages-PayingCIACtoUtility.doc; Village@FlowersPlantation.doc; PinevilleClubDRAFT.doc; FlowersCIAC.xls

Becky, Good afternoon. Attached, please find the water and sewer agreements/amendments which address paying the capacity fees upon recording the lots or, in the case of the commercial centers, at the time service is requested for a unit. It will be very important for these agreements to be reviewed, signed and returned to me as soon as possible so when the Utility is audited both the Developer and Aqua are in compliance with the signed agreements. In addition, I will need to file each with the North Carolina Utilities Commission (NCUC) ASAP.

~~I have adjusted the sewer credit for the projects currently under construction (see attached). In order for the capacity fee payments to be made in phases it will be necessary for each agreement attached to be signed and returned to me for Aqua's signature. Currently no sewer capacity fees are due because of the credit that is available. The available credit at this time is \$51,320.80 and can be used towards future development.~~

The water capacity payments currently due must be paid in full as soon as possible. Payment will need to be made by August 31, 2007. Again, please make this a high priority so we can true-up with each project and move forward with a "clean slate". The water capacity fees due are as follows:

Pineville West, Phase 2 - POD 2 (78 Lots Total)

\$15,000 (32 lots - Phase 1)

Agreement is attached for your review. Please sign and return with capacity payment.

Pineville East Estates, Phase 2 - POD 7 (41 Lots Total)

\$10,000 (19 lots - Phase 1)

Agreement is attached for your review. Please sign and return with capacity payment.

Dr. Watson Inn

\$500 (1 Lot)

Also, please see below and address accordingly.

Pineville East at the Village - (10 Lots) Approved with 68 lots in Pineville East, Phase 1

No capacity fees due. This is a portion of the 47 lots paid for previously as "Pineville East, Phase 1".

Addendum to original "Pineville East" agreement is attached for your review.  
Please sign and return the Addendum to bring both parties in compliance.

Pineville East Cottages (45 lots total, paid for 10 lots previously)

\$17,500 (35 lots remaining) Payment due when another plat is recorded.

Addendum to original agreement is attached for your review.

Please sign and return the Addendum to bring both parties in compliance.

Village at Flowers Plantation (15 connections)

Paying capacity fees as connected. Flows for each business are to be forwarded to Aqua.  
Agreement is attached for your review. Please sign and return.

Pineville Club (3 connections)

Capacity fees for Bath House/Grill & Pool House/Spa Fitness are due upon signing the contract.

Flows for each location are to be forwarded to me in order to to finalize the contract for your signature.

Agreement is attached for your review. Please follow - up with Paul regarding the flows for each location.

Pineville East Estates, Phase 2 (26 Lots)

Will not be constructed as designed.

Permit should be rescinded with DWQ so the flow is not counted against your current capacity.

Permit should be rescinded with DEH because project will not be as designed.

Franchise Application filed with the NCUC under Docket No. W-274, Sub 600 will also need to be rescinded.

Please let me know if you would like this completed and I will coordinate this with our Engineering Department.

If you have any questions or desire additional information please contact me.

Thank you.

Peggy-Sue Dodge  
Sr. New Business Coordinator  
Aqua North Carolina, Inc.  
Heater Utilities, Inc. d/b/a Aqua North Carolina  
202 MacKenan Court  
Cary, North Carolina 27511  
Office: 919.467.8712, Ext. 15  
Fax: 919.460.1788  
[psdodge@aquaamerica.com](mailto:psdodge@aquaamerica.com)

Flowers Commercial - Allocations by River Dell were calculated at 360 gpd.

Flow reduction being completed for 240 gpd. Mike Myers  
Credit being issued to Developer of Flowers for difference between 360 & 240 per

Paid	Water Capacity Fees	Sewer Capacity Fees @ 360 gpd
8/5/1999	19,000.00	
4/12/2001	5,400.00	22,302.00
3/12/2002	833.33	2,628.00
4/10/2002	2,520.00	11,077.60
10/8/2003	23,500.00	74,109.60
4/27/2004	10,500.00	33,112.80
3/22/2005	11,250.00	28,328.40
2006	12,500.00	39,600.00
1/11/2007	13,500.00	58,320.00
Dec-06	10,000.00	45,360.00
1/11/2007	5,000.00	21,600.00
1/11/2007	32,500.00	144,720.00

System Name
Parkway Studios now Parkway Village
Watson's Mill, Phase 1
Plantation Park
Watson's Mill, Phase 1
Pods 2 & 3 (Mill Creek Phase 1)
MC West & North Farm Phase 1
Watson's Mill, Phase 2
Pineville East, Phase 1
Pineville East, Phase 1
River Dell Townes
Pineville East Cottages
Pineville, West, Phase 1

Credit Due @ 240 gpd vs 360 gpd
Per NP/MM
19,000.00
17,434.00
No credit due - commercial
74,139.20
24,703.20
11,037.60
9,408.80
10,800.00
19,520.00
15,120.00
17,200.00
48,240.00
179,800.00

@\$4.13  
\$4.38 x 600 gpd  
S/B @\$4.13  
@\$4.38  
@\$4.38  
@\$4.38

Closed

Closed

Credit due Rebecca Flowers per Mike Myers.

Credit of \$176,600.00 to be used to satisfy future sewer capacity fees

Paid	Water Capacity Fees	Sewer Capacity Fees @ 240 gpd	System Name	Available Credit (176,600.00 - Sewer Capacity Fees @ 240 gpd)	Approved Lots/Phases
OWES WATER Req 8/21; 8/17	16,000.00	46,080.00	Pineville West, Phase 2 - POD 2 (78 lots) - Per Agreement - Paying in Sections as recorded - Section 1 w/ 32 lots	130,520.80	Approved for 78 connections; Phase 1; 32 LOTS BEING RECORDED
OWES WATER Req 8/21; 8/18	10,000.00	27,360.00	Pineville East Estates, Phase 2 POD 7 (41 lots) - Per Agreement - Paying in Sections - Section 1 w/ 19 lots	103,160.80	Approved for 41 connections; Phase 1; 19 LOTS BEING RECORDED
Owes Water	600.00	1,440.00	Dr. Watson's Inn	101,720.80	
Owes Water	17,500.00	50,400.00	Pineville East Cottages	51,320.80	Approved for 45 lots; paid for 10 (see above)
Owes Water & Sewer @ the time service is requested	60,000.00	137,091.20	Village of Flowers Plantation (15 Commercial Units @ 23,722 gals)	Paying per unit as connections are made to the water & sewer system for up to 23,722 gallons of flow.	
TBD	TBD	TBD	Pineville Club	TBD	CIAC for Bath House/Grill & Pool House/Spa Fitness are due upon signing the contract; Banquet Hall due prior to service being provided.



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@aquamerica.com  
www.aquanorthcarolina.com

April 13, 2015

Ms. Rebecca Flowers  
Flowers Plantation  
4880 NC Hwy 42 East  
Clayton, NC 27527

Dear Becky:

I appreciate your update regarding the build out of the Flowers Plantation project and have discussed your concerns with Nick DeBenedictis and others within the company. We are in agreement that the approach explained below meets or exceeds the requirements of the agreements.

Aqua North Carolina, Inc. (Aqua) supports the significant growth in Flowers Plantation and is committed to serving the community. In light of the growth trend, Aqua has already received necessary permit approvals and is almost complete with construction of the second phase of the wastewater treatment plant (WWTP) at Neuse Colony. The second phase of the WWTP will increase the total wastewater capacity to 350,000 gallons. Construction is anticipated to be complete within 60-days and possibly sooner. Aqua is making this investment with no up-front financing from Flowers Plantation; however, as per our agreements, the Cash Contribution in Aid of Construction for the WWTP capacity will be recalculated after all costs for the WWTP's expansion have been booked. This new capacity fee will be the same dollar amount per gallon that Aqua paid for the design, engineering, and construction of the expansion and will remain the per gallon charge until the next WWTP expansion is completed and the capacity fee is again recalculated.

Once the second phase of construction has been completed, Aqua will begin the engineering and permitting process to reach full build-out capacity of 750,000 gallons. Our plan is to build capacity in phases to both limit the investment made by Aqua until it is needed and to limit the impact to future capacity fees paid by the Secondary Developer. Based upon 240 gallons per day (gpd) per single family residential equivalent (SFRE) this will allow for  $\approx 3,125$  SFRE to be constructed in Flowers Plantation utilizing Aqua's WWTP capacity (750,000 gallons WWTP capacity/240 gpd per SFRE). As per the North Carolina Department of Environment and Natural Resources' (NCDENR) requirements, Aqua must begin design of an expansion when the twelve month running annual average flow at the WWTP reaches 80% and begin construction when it reaches 90%. Although NCDENR may have some interest in the number of platted lots, they only use flow as triggered for expansion.

Per the Bulk Wastewater Agreements for Flowers Plantation, Johnston County (County) has agreed to accept a minimum of 500,000 gallons of untreated wastewater capacity from Flowers Plantation. The County agreed to this because you relinquished the 500,000 gallon NPDES Permit No. NC0064556 to the County. This 500,000 gallons of capacity from the County is solely for the use of serving Flowers Plantation. This capacity will allow for  $\approx 2,083$  additional SFREs to be served (500,000 gallons WWTP capacity/240 gpd) in addition to the 750,000 gallons of wastewater capacity Aqua is constructing and

making available solely to serve Flowers Plantation. The flow from the County and Aqua is available for you when it is applied for and nobody else can use it.

The County also recognizes that Flowers Plantation may need more than the combined wastewater capacity (750,000 gallons + 500,000 gallons) to reach full build out. The County has agreed to provide additional bulk wastewater capacity beyond the minimum 500,000 gallons mentioned above, based upon the County's availability of wastewater capacity at the time it is requested and paid for. The County's bulk wastewater capacity to serve Flowers Plantation under the Bulk Wastewater Agreement is reserved for a period of 20 years (expires May 14, 2022). Please refer to the Bulk Wastewater Agreements for further details. If you desire to purchase the 500,000 gallons of wastewater capacity reserved by the County at this time, please issue payment in the amount of \$3,000,000.00 to Aqua (500,000 gallons x \$6.00/gallon: the current capacity charge) and Aqua will make payment to the County and request the 500,000 gallons of wastewater capacity to be reserved for future use at Flowers Plantation. Otherwise the capacity can be purchased (assuming it is available after the 20 year period) at the time application is made and at the County's then current capacity fee rate.

Per the Bulk Water Agreements for Flowers Plantation the County agrees to serve all of Flowers Plantation subject to the availability and the County's applicable policies in effect at the time water capacity is requested. Please refer to the Bulk Water Agreement for further details. If you wish to reserve the same amount of water capacity as the 500,000 gallons of wastewater reserved, please issue payment in the amount of \$1,625,000.00 to Aqua (500,000 gallons x \$3.25/gallon: the current capacity charge) and Aqua will make payment to the County and request the 500,000 gallons of water capacity to be reserved for future use at Flowers Plantation. Otherwise, the capacity can be purchased (assuming it is available after the 20 year period) at the time application is made and at the County's then current capacity fee rate.

~~To be clear, to guarantee water and wastewater capacity from the County you and/or any other Secondary Developer of Flowers Plantation are required to purchase the capacity at the County's current bulk water and wastewater rate. Bulk water and wastewater capacity payments are made to Aqua and then Aqua issues payment to the County in the same amount collected from you or any other Secondary Developer of Flowers Plantation. Again, please refer to the Bulk Water and Bulk Wastewater Agreements for further details.~~

The Agreements signed by you, the County, and Aqua (formerly Heater Utilities, Inc.) are clear on the terms and conditions of the purchased capacity needed to serve Flowers Plantation. They state each Secondary Developer of Flowers Plantation, which includes you, is responsible for purchasing all water and wastewater capacity needed to serve their Subdivision's property within Flowers Plantation. It is not the responsibility of Aqua or its existing rate payers to purchase the water and wastewater capacity needed for the future growth of Flowers Plantation in an effort to reserve capacity needed for Flowers Plantation to reach full build out. Aqua will not agree to purchase capacity from the County on behalf of a Secondary Developer unless that capacity is paid for by the Secondary Developer first. Because of your concerns, Aqua has always encouraged you to purchase as much capacity as you deem necessary to serve your project.

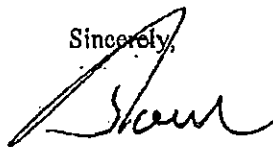
Please note that Aqua's monthly rates and fees charged are approved by the North Carolina Utilities Commission and this is done in accordance with the rules and regulations established by the regulatory agency.

Aqua, without a doubt, appreciates the growth Flowers Plantation provides and the success of Flowers Plantation is important to Aqua. When you and I first met in 2007, you asked me what Aqua would do if growth were to move things forward at a faster pace. I responded then and respond now that Aqua has a

clear understanding of what our obligations are under the agreements and Aqua is committed to meet those obligations.

I look forward to continuing to work with you on this project and its success.

Sincerely,



Thomas J. Roberts  
President and COO



**Poole, Ruffin**

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**From:** Poole, Charles R.  
**Sent:** Friday, October 25, 2013 9:45 AM  
**To:** Reid Stephenson  
**Cc:** Roberts, Tom; len@woodallcpa.com; lreaves@smithlaw.com; Rebecca Flowers; chandra.coats@johnstonnc.com; tim.broome@johnstonnc.com  
**Subject:** RE: Flowers Plantation

Reid:

The meeting earlier this week went well. I was glad to have an opportunity to meet each of you as being the newest member of Aqua. Flowers Plantation is an impressive project with great continued growth opportunities. We are excited you all are looking to continue expansion and look forward to growing with you. The meeting was a good chance for us to touch base on where things stand between us and get some reassurance from one another about how to properly address the future.

With that being said, I wanted to make a few clarifying points to your summary of the meeting below:

- Developer's are required to purchase all the water and sewer capacity needed to serve their property.
- Aqua has one permit for the 750,000 gpd WWTP with an authorization to construct future phases of the WWTP to reach its full capacity. Currently 250,000 gpd of the 750,000 gpd permitted WWTP is in service. We can add capacity with construction of two additional "trains" of 250,000 gpd each. Traditionally, the construction period for each additional train would be 6-8 months. We are committed to the WWTP project build out as needed to address capacity service demands.
- The County agreed to "reserve" 500,000 gpd sewer capacity in addition to the 750,000 gpd capacity Aqua is providing. Developers are required to purchase the County's "reserved" capacity.
- Water capacity fees are calculated at a cost of \$3.25/gal per SFRE (single family residential equivalent) or County's current approved charge. Developers pay Aqua the capacity fees and then Aqua issues a check to the County in that same amount to reserve the capacity purchased.

Sewer capacity fees are calculated as follows:

- For those lots located on the eastern side of the project (500,000 gpd side)
  - SFRE x 240 gpd/SFRE x \$6.00/gal
  - Aqua receives this payment from the Developer and then issues a check to the County in the same amount of monies for the reservation of the capacity purchased.
- For those lots located on the western side of the project (750,000 gpd side)
  - SFRE x 240 gpd/SFRE x \$4.13/gal
  - Aqua receives this payment from the Developer and retains it

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Our Operations team will need to provide the actual sewer flows. Are you looking for the most recent 12 month period?

If you are interested in the actual water flows based on what Aqua purchases from the County within the same period, we can obtain this information as well.

We need a little more clarity about the period requested in order to make sure you receive the information needed.

Thanks, we look forward to continuing to work with you and your team;

# AQUA

**C. Ruffin Poole**  
Manager of Corporate Development  
Aqua North Carolina, Inc.  
202 MacKenan Court  
Cary, NC 27511  
T: 919-653-6967

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**From:** Reid Stephenson [mailto:reid@flowersplantation.com]  
**Sent:** Tuesday, October 22, 2013 6:07 PM  
**To:** Poole, Charles R.  
**Cc:** Roberts, Tom; len@woodallcpa.com; lreaves@smithlaw.com; Rebecca Flowers; chandra.coats@johnstonnc.com; tim.broome@johnstonnc.com  
**Subject:** Flowers Plantation

Thank you for meeting with Lacy Reaves and representatives from Flowers Plantation and Johnston County today. The meeting was very productive and we look forward to working with Aqua as Flowers Plantation continues to develop residential and commercial units.

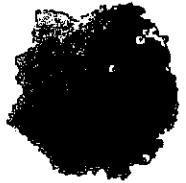
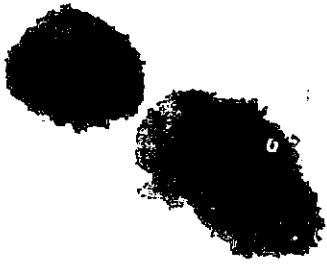
As we discussed Aqua will be the utility company for water and sewer for Flowers Plantation and is prepared with permits in place to install the 250,000gpd cells in the treatment plant as required and construction schedule is 6 to 8 months for each of the 2 remaining cells. Aqua is also prepared to purchase the 500,000 gpd from the County to complete the total 1,250,000gpd requirement for Flowers Plantation. If additional capacity is required by Flowers above the 1,250,000 level, Aqua is prepared to service the additional requirements. The County can expand their discharge facility up to 13.5 million gpd discharge and the pump station upgrade has been designed.

Please provide the current flow rate divided between residential and commercial for Flowers Plantation and would appreciate quarterly updates on flow rates.

We will provide the lot construction schedule and will update with any revisions as required.

Attached is a map of Flowers Plantation with planned and completed subdivisions.

*Reid Stephenson*  
*Flowers Plantation*  
reid@flowersplantation.com  
919-369-8332 cell  
919-553-3084



Rebuttal Cross Exam Exhibit 10

Public Staff Becker

I/A

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STATE OF NORTH CAROLINA  
UTILITIES COMMISSION  
RALEIGH

DOCKET NO. W-218, SUB-251

Order  
Dated  
January 29, 2008

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of

Application by Aqua North Carolina, Inc., 202 MacKenan Court, Cary, North Carolina 27511, for Authority to Increase Rates for Water Utility Service in All of Its Service Areas in Cumberland and Hoke Counties, North Carolina	)	ORDER GRANTING
	)	PARTIAL RATE
	)	INCREASE AND
	)	REQUIRING
	)	CUSTOMER NOTICE

HEARD IN: Shaw Auditorium, Fayetteville State University, 1200 Murchison Road Fayetteville, North Carolina on Thursday, September 6, 2007, at 7:00 p.m.

Commission Hearing Room, Dobbs Building, 430 North Salisbury Street, Raleigh, North Carolina on Tuesday, November 6, 2007, at 9:00 a.m., and Tuesday, January 8, 2008, at 9:00 a.m.

BEFORE: Commissioner Lorinzo L. Joyner, Presiding, Commissioner Robert V. Owens, Jr., and Commissioner William T. Culpepper, III.

APPEARANCES: For Aqua North Carolina, Inc.:

Odes L. Stroupe, Jr., Bode, Call & Stroupe, L.L.P., Attorneys at Law, P.O. Box 6338, Raleigh, North Carolina 27628-6338

Jo Anne Sanford, Sanford Law Office, PLLC, Attorney at Law, P.O. Box 28085, Raleigh, North Carolina 27611-8085

~~For the Using and Consuming Public:~~

~~Tab C Hunter, Staff Attorney, Public Staff—North Carolina Utilities Commission, 4326 Mail Service Center, Raleigh, North Carolina 27699-4326~~

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**BY THE COMMISSION:** On January 11, 2007, Brookwood Water Corporation (Brookwood)<sup>1</sup> and LaGrange Waterworks Corporation (LaGrange)<sup>2</sup> filed letters notifying the Commission of their intent to file general rate cases as required by Commission Rule R1-17(a).

On June 1, 2007, Aqua North Carolina, Inc. (Aqua, Applicant, or Company) filed applications for a general rate increase in its water utility rates for the former Brookwood and LaGrange service areas<sup>3</sup> in the counties of Cumberland and Hoke in Docket No. W-218, Sub 250. Contemporaneously, Aqua filed a Joint Application for Approval of Merger<sup>4</sup> and Applications for Authority to Increase Rates in Docket Nos. W-218, Subs 251 and 250, W-177, Sub 53, and W-200, Sub 48. As a result of said Joint Application for Approval of Merger filing, all subsequent filings related to the general rate case applications were filed in Docket No. W-218, Sub 251.

On June 6, 2007, Aqua filed a letter requesting confidential treatment of Form W-1, Exhibit 17.

On June 29, 2007, in Docket Nos. W-218, Sub 250, W-177, Sub 53, and W-200, Sub 48, the Commission issued an Order Approving Merger on the conditions that: (1) separate rates and separate books and records be maintained after the merger for the former Brookwood and LaGrange systems until otherwise authorized by the Commission; (2) Aqua provide written notification to the Commission within 10 days after the merger has been completed; and (3) the bond obligations and franchises be transferred upon receipt of written notification that the merger has been completed.

Also, on June 29, 2007, the Commission issued an Order Establishing General Rate Case, Suspending Rates, Scheduling Hearings, and Requiring Notice.

On August 3, 2007, Aqua filed a Certificate of Service indicating that the public notice had been provided in accordance with the Commission's June 29, 2007 Order. On August 7, 2007, Aqua filed a revised Certificate of Service that reflected the required notarial seal.

On August 14, 2007, Jo Anne Sanford of Sanford Law Office, PLLC filed a Motion to Withdraw and Notice of Substitution of Counsel requesting that the Commission allow the withdrawal of Laurence A. Cobb and Kathy L. Pape as counsels

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<sup>1</sup> Docket No. W-177, Sub 53.

<sup>2</sup> Docket No. W-200, Sub 48.

<sup>3</sup> On May 26, 2004, the Commission issued an Order Approving Joint Stipulation and Transfer of Stock in Docket Nos. W-274, Sub 465, W-177, Sub 50, and W-200, Sub 45, whereby the stock of Heater Utilities, Inc. (Heater) and control of Heater and its wholly-owned subsidiaries, Brookwood Water Corporation and LaGrange Waterworks Corporation were transferred from Allele Water Services, Inc. to Aqua America, Inc. Aqua North Carolina, Inc. is a wholly-owned subsidiary of Aqua America, Inc.

<sup>4</sup> Aqua North Carolina, Inc., Brookwood Water Corporation, and LaGrange Waterworks Corporation jointly requested Commission approval to merge Brookwood and LaGrange into Aqua pursuant to G.S. 62-111.

of record and allow the appearances of Odes L. Stroupe, Jr., of the law firm of Bode, Call, & Stroupe, L.L.P., and Jo Anne Sanford as attorneys of record for Docket Nos. W-218, Subs 250 and 251, W-177, Sub 53, and W-200, Sub 48. In her motion, Ms. Sanford stated that Mr. Cobb indicated agreement with such request and that Ms. Pape was no longer employed by Aqua America, Inc. On August 17, 2007, the Commission issued an Order Granting Motion to Withdraw and Substitution of Counsel in said dockets.

On September 6, 2007, the public hearing was held as scheduled in Fayetteville, North Carolina. The following 15 public witnesses testified: Curtis Worthy, Charles Van Hook, Emilie Helms, Mary Harris, Richard Garner, Bob Moeschet, William White, Mary Wilson, Phyllis Clarke, Lenon Hall, John Tinsley, Clarence Lassiter, Ethel Campbell, Theresa Taylor, and Lynda Parlett.

On September 25, 2007, Aqua prefiled the testimony of Thomas J. Roberts, President and Chief Operating Officer for Aqua North Carolina, Inc., J. Preston Luitweiler, Vice President of Water Resources for Aqua Services, Inc.<sup>5</sup>, Stephen F. Anzaldo, Treasurer for Aqua Services, Inc., William C. Packer, Jr., Assistant Manager of Rates for Aqua Services, Inc., and Stan F. Szczygiel, Regional Controller for Aqua America, Inc.'s southern state operations.

On October 5, 2007, the Applicant filed a Motion for Continuance of Hearing. In its motion, Aqua stated that transitional issues related to the conversion from the data collection and maintenance system utilized by the Company's predecessor, Heater, to Aqua's current system, had taken longer to resolve than anticipated due to the huge amount of data involved; consequently, it had been more difficult and complex to reconcile accounts and data in a timely manner for the rate case proceeding. Aqua contended that such transitional issues had imposed a significantly greater burden on both the Company and the Public Staff, extending appreciably the time required to complete the various tasks related to the rate case application. Further, Aqua maintained that the completion of certain critical capital projects essential to the Company's regulatory compliance with drinking water standards could not be assured by the close of the November 6, 2007 evidentiary hearing. Aqua requested that the November 6, 2007 hearing be convened as scheduled and previously noticed to the customers, but that the evidentiary portion of such hearing be continued until early January 2008.

On October 17, 2007, the Commission issued an Order Rescheduling Hearing and Setting Deadline for Filings and on October 18, 2007, the Commission issued an Errata Order Clarifying Hearing Dates.

On November 6, 2007, a public hearing was held at the North Carolina Utilities Commission hearing room in Raleigh, North Carolina, as scheduled. No customers testified. On that same date, Aqua filed a report with the Commission in response to

<sup>5</sup> Aqua Services, Inc. is a subsidiary of Aqua America, Inc., the parent company of Aqua North Carolina, Inc.

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the concerns expressed by the public witnesses at the September 6, 2007 Hearing in Fayetteville, North Carolina.

On December 4, 2007, the Public Staff verbally requested an extension of time until December 14, 2007, within which to file its testimony. On December 6, 2007, the Commission issued an Order Granting Oral Motion for Extension of Time to File Testimony. On that same date, the Commission issued an Errata Order Clarifying the Extended Filing Deadlines in Docket.

On December 12, 2007, Aqua and the Public Staff entered and filed a Partial Settlement Agreement in this proceeding, which stipulated to the appropriate capital structure and cost rates components of the capital structure and return on rate base.

On December 13, 2007, the Public Staff verbally requested an extension of time until December 21, 2007, within which to file its testimony and an extension until December 28, 2007, for Aqua to file its rebuttal testimony. On December 17, 2007, the Commission issued an Order Granting Second Extension of Time to File Testimony.

On December 21, 2007, the Applicant filed a motion for an extension of time for the parties to file testimony. In support of its motion, Aqua stated, among other things, that the parties plan to file with the Commission no later than January 4, 2008, a stipulation which would provide a settlement of all their outstanding issues related to proposed rates and charges. On that same date, the Commission issued an Order Granting Additional Extension of Time to File Testimony.

On January 4, 2008, Aqua and the Public Staff filed a Joint Stipulation that settled their outstanding issues. On that same date, the Public Staff filed the testimony of Jerry H. Tweed, Utilities Engineer, Water Division, and Katherine A. Fernald, Water Supervisor, Public Staff Accounting Division.

On January 8, 2008, an evidentiary hearing was held at the North Carolina Utilities Commission hearing room in Raleigh, North Carolina, as scheduled. The Applicant presented the direct prefiled testimony of Thomas J. Roberts, J. Preston Luitweiler, Stephen F. Anzaldo, William C. Packer, Jr., and Stan F. Szczygiel. The Public Staff presented the prefiled testimony of Jerry H. Tweed and Katherine A. Fernald.

Witness Roberts testified for the Applicant and witnesses Fernald and Tweed testified for the Public Staff in response to Commission questions. In addition, the Commission propounded a series of written accounting questions to the Public Staff with a request for a seven-day response time, unless an extension of time was requested by the Public Staff.

On January 9, 2008, Aqua and the Public Staff filed a Joint Proposed Order.

On January 10, 2008, the Public Staff filed its Late-Filed Exhibits.

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On January 17, 2008, Aqua filed the affidavit of Thomas J. Roberts, President, Aqua North Carolina, Inc. in response to the Presiding Commissioner's inquiry, at the January 8, 2008, evidentiary hearing in Raleigh, North Carolina, regarding a service-related concern expressed by public witness William White at the September 6, 2007 public hearing held in Fayetteville, North Carolina.

On the basis of the application, the Partial Settlement Agreement, the Joint Stipulation, and the other evidence of record, the Commission makes the following

#### FINDINGS OF FACT

1. Aqua is a corporation duly organized under the laws of and authorized to do business in the State of North Carolina. Aqua is a franchised public utility providing water and/or sewer utility service to customers in North Carolina.

2. Aqua is properly before the Commission, pursuant to Chapter 62 of the General Statutes of North Carolina, for a determination of the justness and reasonableness of its proposed rates and charges for its Brookwood and LaGrange water operations.

3. The Brookwood and LaGrange water systems provide service to approximately 14,200 customers (8,200 Brookwood and 6,000 LaGrange); all service is metered except for the service provided to approximately 160 flat rate Brookwood customers.

4. The test period appropriate for use in the proceeding is the 12 months ended December 31, 2006.

5. The overall quality of service provided by Aqua to its customers is adequate.

6. A total of 15 public witnesses testified at the customer hearings and the concerns expressed included the magnitude of the rate increase as well as various service-related concerns. The water service concerns expressed by the public witnesses included, but were not limited to, estimated bills, estimated meter readings, an unannounced water outage, the inability to contact the local Fayetteville office regarding customer service issues, black silt in the water, sporadic fluctuation in water pressure, and the level of chlorine in the water.

7. Aqua filed a report with the Commission addressing the concerns expressed by the public witnesses at the customer hearings. Such report listed each of the 15 witnesses, his/her specific concern(s) testified to at the customer hearings, the Company's response, and how each concern was addressed, if applicable. Further, Aqua filed an affidavit with the Commission in response to the Presiding Commissioner's inquiry at the January 8, 2008 evidentiary hearing regarding a



service-related concern expressed by a public witness at the September 6, 2007 public hearing held in Fayetteville, North Carolina<sup>6</sup>.

8. Aqua's present rates for its Brookwood and LaGrange water systems are as follows:

	Brookwood	LaGrange
<u>Monthly Metered Water Rates:</u>		
Bragg Estates Subdivision:		
Base charge, zero usage	\$ 6.44	n/a
Commodity charge, per 1,000 gallons	\$ 1.01	n/a
All Other Service Areas:		
Base charge, zero usage (based on meter size)		
<1" meter	\$ 6.44	\$ 4.97
1" meter	16.10	12.43
1½" meter	32.20	24.85
2" meter	51.52	39.76
3" meter	96.60	74.55
4" meter	161.00	124.55
6" meter	322.00	248.50
Commodity Charge, per 1,000 gallons	\$ 1.40	\$ 0.99
<u>Monthly Metered Flat Water Rate:</u>	\$ 13.75	n/a

9. Aqua requested an increase in its water rates that would produce \$2,601,795 in additional revenues related to its Brookwood and LaGrange water systems.

10. Aqua's original cost rate base for its Brookwood and LaGrange water operations at December 31, 2006, is \$12,166,240.

11. Aqua had water plant in service for its Brookwood and LaGrange water operations, net of contributions in aid of construction, of \$21,280,052 at the end of the test year, including pro forma adjustments.

<sup>6</sup> An investigation by Aqua of the service-related concern expressed at the September 6, 2007 Hearing by public witness William White revealed that witness White is not an Aqua customer. The Company determined that witness White resides in Morganton Place Subdivision, a former LaGrange Waterworks Corporation system that is currently served by the Fayetteville Public Works Commission.

12. The accumulated depreciation at the end of the test year, including pro forma adjustments, was \$9,006,591 for its Brookwood and LaGrange water operations.

13. The depreciation life for filters purchased from WRT Environmental LLC (WRT) is 20 years.

14. Aqua is entitled to total rate case expenses of \$124,404, consisting of \$750 of filing fees, \$12,600 of printing and postage costs, \$1,411 of Public Staff travel costs, \$42,774 of attorney fees and expenses, and \$66,869 of Aqua Services, Inc. charges. These total rate case expenses of \$124,404 should be amortized over three years, thereby resulting in an annual rate case expense of \$41,468.

15. In addition to the \$124,404 of total rate case expenses, the Applicant also incurred \$21,068 of legal fees and \$7,570 of Aqua Services, Inc. charges that should be assigned to the rate case applications for its remaining North Carolina companies for which the Applicant has Letters of Intent on file. The Parties agree that if the Applicant does not file rate cases for the remaining North Carolina companies by December 31, 2008, the Applicant should write-off these costs.

16. It is appropriate to calculate regulatory fees using the statutory rate of 0.12%.

17. It is appropriate to calculate gross receipts tax based upon the approved levels of revenues and the statutory rate of 4% for water operations.

18. It is appropriate to calculate state and federal income taxes based upon the corporate tax rates of 6.9% for state income taxes and 35% for federal income taxes.

19. Aqua's total operating revenue deductions under present rates for its Brookwood and LaGrange water operations are \$2,970,507.

20. Aqua's present rates produce total operating revenues for its Brookwood and LaGrange water operations of \$2,678,103.

21. On December 12, 2007, Aqua and the Public Staff (the Parties) entered into and filed a Partial Settlement Agreement establishing the rate of return components to be used in this proceeding. The Parties' agreed-upon overall rate of return on rate base was established at 8.06%, which includes a return on common equity component of 10.40%.

22. The Parties agreed that the Applicant should conduct routine (at least annual) analyses of the terms of its debt issues for opportunities to reduce its embedded cost of debt rate through debt refunding, refinancing, or any other reasonable means that

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may be economically feasible and to take action to achieve such opportunities. Further, Aqua should file an annual report with the Commission regarding such activities.

23. Aqua and the Public Staff (the Stipulating Parties) entered into and filed a Joint Stipulation on January 4, 2008, which contained rates and charges agreed to by the Company and the Public Staff. In addition, the Joint Stipulation included several accounting recommendations by the Public Staff which were agreed to by Aqua.

24. The Stipulating Parties have agreed that the Applicant is entitled to changes in rates that will produce total annual operating revenues for its Brookwood and LaGrange water operations of \$4,422,698.

25. The stipulated rates will produce an increase in revenues for the Brookwood and LaGrange water operations of \$1,744,595.

26. Aqua's total operating revenue deductions under the stipulated rates for its Brookwood and LaGrange water operations are \$3,442,708.

27. The monthly water rates for the Brookwood and LaGrange service areas, as agreed to in the Joint Stipulation, will be uniform and they are as follows:

#### Water Rates and Charges

##### Monthly Metered Water Rates:

Base charge, zero usage  
(based on meter size)

< 1" meter	\$ 9.62
1" meter	24.05
1½ " meter	48.10
2" meter	76.96
3" meter	144.30
4" meter	240.50
6" meter	481.00

Commodity charge, per 1,000 gallons \$ 2.15

Monthly Flat Water Rate: \$ 24.45

(Note: Meters may be installed and the applicable metered rate charged.)

Tap Fee:

<1" meter	\$450.00
1" meter or larger	120% of actual cost of making tap, including setting meter and meter box

(Note: In some areas, connection charges may not apply pursuant to contract properly filed with the Commission.)

Meter Installation Fee: \$ 70.00

(Note: The fee will be charged only where cost of meter installation is not otherwise recovered through connection charges.)

Reconnection Charges:

If water service is cut off by utility for good cause	\$ 15.00
If water service is discontinued at customer's request	\$ 7.50

New Customer Account Fee: \$ 15.00

Returned Check Charge: \$ 20.00

28. The rates agreed to by the Stipulating Parties, as provided hereinabove and included in Appendix A, attached hereto, are just and reasonable and should be approved.

29. The Applicant should make any necessary changes or revisions to its billing system such that the system can print monthly system specific billing and consumption reports that can be tied to monthly revenues prior to the Applicant filing another general rate case proceeding with the Commission for any of its operations or affiliated operations in North Carolina, as stipulated.

30. The Applicant should make any necessary revisions to its reports and billing system such that the number of customers by subdivision needed to calculate certain allocation factors will be readily available, as stipulated.

31. The Applicant should make any necessary revisions to its reports and billing system such that the information required to file accurate annual reports with the Commission, such as the number of customers by subdivision, will be readily available, as stipulated.

32. The Applicant should evaluate all of its North Carolina allocations, including the allocation of charges from Aqua Services, Inc., for accuracy and

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reasonableness and prepare a written allocation procedure for its North Carolina costs, as stipulated. Such written allocation procedure should be filed with the Commission within 60 days of the date of this Order. Further, the Applicant should ensure that its North Carolina personnel are familiar with and understand the written allocation procedure, as stipulated.

33. The Applicant should implement a procedure to evaluate the change in customer counts in order to confirm that no material change in the factors has occurred, and to ensure that if there is a significant change, it is reflected in the allocation factors in a timely manner, as stipulated. The Applicant should file a written copy of such procedure with the Commission within 90 days of the date of this Order.

34. The Applicant should make revisions to its systems such that summary information of the allocations for North Carolina and Aqua Services, Inc. is readily available, as stipulated. Such summary information should clearly set forth the total costs to be allocated by each factor, how each factor is calculated, and the amount allocated to each North Carolina entity, as stipulated.

35. The Applicant should revise its allocation methodology for Aqua Services, Inc.'s charges and North Carolina corporate costs such that the account detail for the allocated costs is maintained, beginning in 2008, as stipulated.

36. The Applicant should evaluate its treatment of common assets and how they are allocated, and should file a report with the Commission detailing its proposed changes to its current allocation process within 90 days of the date of this Order, as stipulated.

37. The Applicant should revise its procedures such that corrections to the allocation of common projects already closed to plant are made directly to the plant accounts, and not through construction work in progress, as stipulated.

38. The Applicant should begin booking and allocating costs in a consistent manner, as stipulated.

39. Aqua should keep system specific plant data, contributions in aid of construction, and direct expense data, as stipulated. The Public Staff should work with the Applicant regarding the determination of which direct expenses should be kept on a system-specific basis.

40. The Applicant should put in place procedures and safeguards to prevent construction work in progress for one accounting unit from being erroneously coded to the construction work in progress for another accounting unit, as stipulated.

41. The Applicant should review its construction work in progress accounting such that construction work in progress should only include projects that are truly in progress, as stipulated. The Applicant should not include multiple projects with multiple completion dates in one construction work in progress funding project, as stipulated.

42. Aqua should establish and maintain separate plant accounts or subaccounts for each depreciation rate authorized by the Commission, as stipulated.

43. Aqua should implement a procedure to ensure that any changes to the distribution of employee's time will be: (a) discussed with the employee, (b) agreed to by the employee, and (c) sufficiently documented such that an audit trail exists on why and how the adjustment was made, as stipulated.

44. Aqua should establish a procedure to review the employee benefit costs provided by the corporate office in detail to ensure accuracy, as stipulated.

45. Aqua should revisit its policy on collecting customer deposits. Further, the Company should review its policy on how it handles past due accounts, as stipulated.

46. Aqua should provide written notification of the completion or status of the merger to the Commission within 30 days of the date this Order.

47. Aqua and the Public Staff agreed that all prefiled testimony and exhibits could be introduced into evidence without objection, and the Stipulating Parties waived their right to cross-examine all witnesses with respect to all such prefiled testimony and exhibits.

48. The Joint Stipulation contained the provision that Aqua and the Public Staff agreed to waive appeal of a final Order of the Commission incorporating the matters stipulated in the Joint Stipulation.

49. The Joint Stipulation contained the provision that the Stipulating Parties agreed that none of the positions, treatments, figures, or other matters reflected in said Joint Stipulation should have any precedential value, nor should they otherwise be used in any subsequent proceedings before this Commission or any other regulatory body as proof of the matter in issue.

WHEREUPON, the Commission reaches the following

### CONCLUSIONS

Based upon the foregoing findings of fact and the entire record in this proceeding, the Commission is of the opinion that the stipulated rates should be approved and that the Partial Settlement Agreement, entered and filed on December 12, 2007, and the Joint Stipulation between the Public Staff and Aqua North Carolina, Inc., entered and filed on January 4, 2008, which are incorporated by reference herein, should be approved.

Furthermore, the Commission has considered the testimony of the public witnesses. On November 6, 2007, the Company filed a report addressing the concerns expressed by the witnesses at the public hearings. On January 17, 2008, Aqua filed the affidavit of Company witness Roberts responding to the Presiding Commissioner's

inquiry at the January 8, 2008 evidentiary hearing regarding a service-related concern expressed by a public witness. The Commission believes that the November 6, 2007 and January 17, 2008 filings by Aqua have adequately addressed the service-related concerns expressed by the public witnesses.

IT IS THEREFORE, ORDERED as follows:

1. That the Schedule of Rates, attached hereto as Appendix A, is hereby approved and deemed to be filed with the Commission pursuant to G.S. 62-138.
2. That the Schedule of Rates is hereby authorized to become effective for service rendered on and after the issuance date of this Order.
3. That a copy of the Notice to Customers, attached hereto as Appendix B, shall be mailed or hand delivered to all affected customers by Aqua in conjunction with the next regularly scheduled billing process.
4. That the Applicant shall file the attached Certificate of Service, properly signed and notarized, no later than Friday, February 29, 2008.
5. That the Joint Stipulation among the parties to this proceeding as well as the Partial Settlement Agreement, which are incorporated by reference, herein, are hereby approved.
6. That neither the Partial Settlement Agreement entered on December 12, 2007, the Joint Stipulation entered on January 4, 2008, nor this Order, shall be treated or cited as precedent in future proceedings.
7. That Aqua shall make any necessary changes or revisions to its billing system such that the system can print monthly system specific billing and consumption reports that can be tied to monthly revenues prior to the Applicant filing another general rate case proceeding with the Commission for any of its operations or affiliated operations in North Carolina.
8. That Aqua shall make any necessary revisions to its reports and billing system such that the number of customers by subdivision needed to calculate certain allocation factors is readily available.
9. That Aqua shall make any necessary revisions to its reports and billing system such that information required to file accurate annual reports with the Commission, such as the number of customers by subdivision, is readily available.
10. That Aqua shall evaluate all of its North Carolina allocations, including the allocation of charges from Aqua Services, Inc., for accuracy and reasonableness and prepare a written allocation procedure for its North Carolina costs. This written allocation procedure(s) shall be filed with the Commission on or before Tuesday,

April 1, 2008. Further, the Applicant shall ensure that its North Carolina personnel are familiar with and understand such written allocation procedure(s).

11. That Aqua shall implement a procedure to evaluate the change in customer counts in order to confirm that no material change in the factors has occurred, and to ensure that if there is a significant change, it is reflected in the allocation factors in a timely manner. The Applicant shall file a written copy of its procedure with the Commission on or before Tuesday, April 29, 2008.

12. That Aqua shall make revisions to its systems such that summary information of its allocations for North Carolina and Aqua Services, Inc. is readily available. Such summary information shall clearly set forth the total costs to be allocated by each factor, how each factor was calculated, and the amount allocated to each North Carolina entity.

13. That Aqua shall revise its allocation methodology for Aqua Services, Inc. charges and its North Carolina corporate costs such that the account detail for the allocated costs is maintained, beginning in 2008.

14. That Aqua shall evaluate its treatment of common assets and how they are allocated, and shall file a report with the Commission detailing its proposed changes to address this issue on or before Tuesday, April 29, 2008.

15. That Aqua shall revise its procedures such that corrections to the allocation of common projects already closed to plant are made directly to the plant accounts and not through construction work in progress accounts.

16. That Aqua shall begin booking and allocating costs in an appropriate and consistent manner.

17. That Aqua shall keep system specific plant data, contributions in aid of construction, and direct expense data, as stipulated. The Public Staff shall work with the Applicant in determining which direct expenses should be kept on a system-specific basis.

18. That Aqua shall put in place procedures and safeguards to prevent construction work in progress for one accounting unit from being erroneously coded to the construction work in progress for another accounting unit.

19. That Aqua shall review its construction work in progress accounting such that construction work in progress shall only include projects that are truly in progress. Further, the Applicant shall not include multiple projects with multiple completion dates in one construction work in progress funding project.

20. That Aqua shall establish and maintain separate plant accounts or subaccounts for each depreciation rate authorized by the Commission.



21. That Aqua shall implement a procedure to ensure that any changes to the distribution of employee's time will be (1) discussed with the employee, (2) agreed to by the employee, and (3) sufficiently documented such that an audit trail exists on why and how the adjustment was made.

22. That Aqua shall establish a procedure to review the employee benefit costs provided by the corporate office in detail to ensure accuracy.

23. That Aqua shall revisit its policy on collecting customer deposits. Further, the Company shall review its policy on how it handles past due accounts.

24. That Aqua shall conduct routine (at least annual) analyses of the terms of its debt issues for opportunities to reduce its embedded cost of debt rate through debt refunding, refinancing, or any other reasonable means that may be economically feasible and shall take action to achieve such opportunities. Further, Aqua shall file an annual report with the Commission regarding such activities, with the first report due on or before January 30, 2009 and each subsequent report shall be due on the last business day of January for each year thereafter until further order of the Commission.

25. That Aqua shall provide written notification of the completion or status of the merger to the Commission on or before Friday, February 29, 2008.

ISSUED BY ORDER OF THE COMMISSION.

This the 29<sup>th</sup> day of January, 2008.

NORTH CAROLINA UTILITIES COMMISSION

*Gail L. Mount*

Gail L. Mount, Deputy Clerk

SCHEDULE OF RATES

for

AQUA NORTH CAROLINA, INC.

for providing water utility service in

ITS BROOKWOOD AND LAGRANGE SERVICE AREAS<sup>1</sup>

in Cumberland and Hoke Counties, North Carolina

Monthly Metered Water Rates:

Base charge, zero usage  
(based on meter size)

<1" meter	\$ 9.62
1" meter	24.05
1½ " meter	48.10
2" meter	76.96
3" meter	144.30
4" meter	240.50
6" meter	481.00

Commodity charge, per 1,000 gallons \$ 2.15

Monthly Flat Water Rate: \$ 24.45

(Note: Meters may be installed and the applicable metered rate charged.)

Tap Fee:

< 1" meter	\$450.00
1" meter or larger	120% of actual cost of making tap, including setting meter and meter box

(Note: In some areas, connection charges may not apply pursuant to contract properly filed with the Commission.)

<sup>1</sup>On June 29, 2007, in Docket Nos. W-177, Sub 53 and W-200, Sub 48, the Commission issued an Order approving the merger of Brookwood Water Corporation and LaGrange Waterworks Corporation into Aqua North Carolina, Inc., a wholly-owned subsidiary of Aqua America, Inc.

Meter Installation Fee: \$70.00

(Note: The fee will be charged only where cost of meter installation is not otherwise recovered through connection charges.)

Reconnection Charges:

If water service is cut off by utility for good cause \$15.00  
If water service is discontinued at customer's request \$ 7.50

New Customer Account Fee: \$15.00

Returned Check Charge: \$20.00

Bills Due: On billing date

Bills Past Due: 15 days after billing date

Billing Frequency: Shall be monthly for service in arrears

Finance Charge for Late Payment: 1% per month will be applied to the unpaid balance of all bills still past due 25 days after the billing date

**STATE OF NORTH CAROLINA  
UTILITIES COMMISSION  
RALEIGH**

DOCKET NO. W-218, SUB 251

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of  
Application by Aqua North Carolina, Inc., 202 MacKenan )  
Court, Cary, North Carolina 27511, for Authority to ) **NOTICE TO**  
Increase Rates for Water Utility Service in All of Its ) **CUSTOMERS**  
Service Areas in Cumberland and Hoke Counties, North )  
Carolina )

NOTICE IS HEREBY GIVEN that the North Carolina Utilities Commission has issued an Order authorizing Aqua North Carolina, Inc. to charge increased rates for water utility service in all of its Brookwood and LaGrange service areas<sup>1</sup> in the North Carolina counties of Cumberland and Hoke. The new approved rates are as follows:

**Monthly Metered Water Rates:**

Base charge, zero usage  
(based on meter size)

<1" meter	\$ 9.62
1" meter	24.05
1½" meter	48.10
2" meter	76.96
3" meter	144.30
4" meter	240.50
6" meter	481.00

Commodity charge, per 1,000 gallons \$ 2.15

**Monthly Flat Water Rate:** \$ 24.45

(Note: Meters may be installed and the applicable metered rate changed.)

<sup>1</sup>On June 29, 2007, in Docket Nos. W-177, Sub 53 and W-200, Sub 48, the Commission issued an Order approving the merger of Brookwood Water Corporation and LaGrange Waterworks Corporation into Aqua North Carolina, Inc., a wholly-owned subsidiary of Aqua America, Inc.

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Tap Fee:

<1" meter	\$450.00
1" meter or larger	120% of actual cost of making tap, including setting meter and meter box

(Note: In some areas, connection charges may not apply pursuant to contract property filed with the Commission.)

Meter Installation Fee: \$70.00

(Note: The fee will be charged only where cost of meter installation is not otherwise recovered through connection charges.)

Reconnection Charges:

If water service is cut off by utility for good cause	\$ 15.00
If water service is discontinued at customer's request	\$ 7.50

New Customer Account Fee: \$15.00

Returned Check Charge: \$20.00

Bills Due: On billing date

Bills Past Due: 15 days after billing date

Billing Frequency: Shall be monthly for service in arrears

Finance Charge for Late Payment: 1% per month will be applied to the unpaid balance of all bills still past due 25 days after the billing date

ISSUED BY ORDER OF THE COMMISSION.

This the 29<sup>th</sup> day of January, 2008.

NORTH CAROLINA UTILITIES COMMISSION

*Gail L. Mount*

Gail L. Mount, Deputy Clerk

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**CERTIFICATE OF SERVICE**

I, \_\_\_\_\_, mailed with sufficient postage or hand delivered to all affected customers the attached Notice to Customers issued by the North Carolina Utilities Commission in Docket No. W-218, Sub 251, and the Notice was mailed or hand delivered by the date specified in the Order.

This the \_\_\_\_ day of \_\_\_\_\_, 2008.

By: \_\_\_\_\_  
Signature  
\_\_\_\_\_  
Name of Utility Company

The above named Applicant, \_\_\_\_\_, personally appeared before me this day and, being first duly sworn, says that the required Notice to Customers was mailed or hand delivered to all affected customers, as required by the Commission Order dated \_\_\_\_\_ in Docket No. W-218, Sub 251.

Witness my hand and notarial seal, this the \_\_\_\_ day of \_\_\_\_\_, 2008.

\_\_\_\_\_  
Notary Public  
\_\_\_\_\_  
Address  
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Date

(SEAL) My Commission Expires:

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PLACE: Dobbs Building, Raleigh, North Carolina

DATE: ~~Tuesday, November 6, 2007~~

DOCKET NO.: W-218, Sub 251

TIME IN SESSION: 9:02 A.M. - 9:06 A.M.

BEFORE: Commissioner Lorinzo L. Joyner, Presiding  
Commissioner William T. Culpepper, III

IN THE MATTER OF:

AQUA NORTH CAROLINA, INC.: APPLICATION FOR AUTHORITY TO  
INCREASE RATES FOR WATER UTILITY SERVICE IN ALL OF ITS  
SERVICE AREAS IN CUMBERLAND AND HOKE COUNTIES, NORTH  
CAROLINA

A P P E A R A N C E S:

FOR AQUA NORTH CAROLINA:

JoAnne Sanford  
Sanford Law Office, PLLC  
P.O. Box 28085  
Raleigh, North Carolina 27611-8085

FOR THE USING AND CONSUMING PUBLIC:

~~Tab C. Hunter~~  
Public Staff - North Carolina Utilities Commission  
4326 Mail Service Center  
Raleigh, North Carolina 27699-4326

1 PLACE: ~~Fayetteville State University~~, Shaw Auditorium  
2 1200 Murchison Road  
3 Fayetteville, North Carolina

4 DATE: ~~Thursday, September 6, 2007~~

5 DOCKET NO.: W-218, Sub 251

6 TIME IN SESSION: 7:09 P.M. - 8:58 P.M.

7 BEFORE: Commissioner Lorinzo L. Joyner, Presiding  
8 Commissioner William T. Culpepper, III

9 IN THE MATTER OF:

10 AQUA NORTH CAROLINA, INC.: APPLICATION FOR AUTHORITY TO  
11 INCREASE RATES FOR WATER UTILITY SERVICE IN ALL OF ITS  
12 SERVICE AREAS IN CUMBERLAND AND HOKE COUNTIES, NORTH  
13 CAROLINA

14 A P P E A R A N C E S:

15 FOR AQUA NORTH CAROLINA:

16 JoAnne Sanford  
17 Sanford Law Office, PLLC  
18 P.O. Box 28085  
19 Raleigh, North Carolina 27611-8085

20 FOR THE USING AND CONSUMING PUBLIC:

21 ~~Tab C. Hunter~~  
22 Public Staff - North Carolina Utilities Commission  
23 4326 Mail Service Center  
24 Raleigh, North Carolina 27699-4326



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I/A

Public Staff  
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STATE OF NORTH CAROLINA  
UTILITIES COMMISSION  
RALEIGH

DOCKET NO. W-218, SUB 274  
DOCKET NO. W-224, SUB 15

*Produced  
in accordance  
with  
8/4 April 2009*

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of

Application by <u>Agua North Carolina, Inc.</u> , Fairways Utilities, Inc., Glynnwood Water Systems, Inc., Mountain Point Utilities, Inc., Rayco Utilities, Inc., Willowbrook Utility Company, Inc., Heater Utilities, Inc., and Mobile Hill Estates, 202 MacKenan Court, Cary, North Carolina 27511, for Authority to Increase Rates	)	ORDER GRANTING PARTIAL RATE INCREASE AND REQUIRING CUSTOMER NOTICE
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HEARD IN: Chamber Conference Room (CH-14), Charlotte-Mecklenburg Government Center, 600 East Fourth Street, Charlotte, North Carolina on Tuesday, October 28, 2008, at 7:00 p.m.

Courtroom #4, Henderson County Courthouse, 200 North Grove Street, Hendersonville, North Carolina on Wednesday, October 29, 2008, at 1:00 p.m.

Courtroom B, District Court Building, 111 Main Avenue NE, Hickory, North Carolina on Thursday, October 30, 2008, at 7:00 p.m.

Village Hall, Assembly Room, 395 Magnolia Road, Pinehurst, North Carolina on Friday, November 21, 2008, at 1:00 p.m.

Superior Courtroom, Judicial Building, Third Floor, 314 Princess Street, Wilmington, North Carolina on Monday, November 24, 2008, at 7:00 p.m.

Commission Hearing Room 2115, Dobbs Building, 430 North Salisbury Street, Raleigh, North Carolina on Monday, December 1, 2008, at 7:00 p.m.

Meeting Room, Holiday Inn Express, 1713 NC Highway 67, Jonesville, North Carolina on Monday, December 8, 2008, at 7:00 p.m.

Boardroom, Greensboro Cultural Center, 200 North Davie Street, Greensboro, North Carolina on Tuesday, December 9, 2008, at 7:00 p.m.

Commission Hearing Room 2115, Dobbs Building, 430 North Salisbury Street, Raleigh, North Carolina on Tuesday, February 3, 2009, at 9:00 a.m.

BEFORE: Commissioner William T. Culpepper, III, Presiding; Chairman Edward S. Finley, Jr.; and Commissioner Lorinzo L. Joyner

APPEARANCES:

For Aqua North Carolina, Inc.:

Jo Anne Sanford, Sanford Law Office, PLLC, Post Office Box 28085, Raleigh, North Carolina 27611-8085

C. Blythe Clifford, Clifford Law Firm, PLLC, Post Office Box 37458, Raleigh, North Carolina 27627

~~For the Using and Consuming Public:~~

~~Elizabeth A. Denning (formerly Elizabeth Denning-Szafran), Staff Attorney, Public Staff – North Carolina Utilities Commission, 4326 Mail Service Center, Raleigh, North Carolina 27699-4326~~

Margaret A. Force, Assistant Attorney General, North Carolina Department of Justice, Post Office Box 629, Raleigh, North Carolina 27602-0629

BY THE COMMISSION: On December 7, 2006, Aqua North Carolina, Inc. (Aqua<sup>1</sup>), Fairways Utilities, Inc., d/b/a Aqua North Carolina (Fairways), Glynnwood Water Systems, Inc., d/b/a Aqua North Carolina (Glynnwood), Mountain Point Utilities, Inc., d/b/a Aqua North Carolina (Mountain Point), Rayco Utilities, Inc., d/b/a Aqua North Carolina (Rayco), and Willowbrook Utility Company, Inc., d/b/a Aqua North Carolina (Willowbrook), filed a joint letter of intent notifying the Commission of their intent to file general rate case applications as required by Commission Rule R1-17(a).<sup>2</sup> On

<sup>1</sup> In this Order, the referencing of Aqua North Carolina, Inc. as Aqua, is being used to denote the premerger entity; that is, the entity that operated in North Carolina under the name Aqua North Carolina, Inc. prior to the December 5, 2008 Order Approving Merger.

<sup>2</sup> Such joint notice was filed in Docket Nos. W-218, Sub 274; W-787, Sub 38; W-1032, Sub 11; W-989, Sub 11; W-899, Sub 39; and W-981, Sub 13. On December 5, 2008, the Commission issued an Order Approving Merger of Fairways, Glynnwood, Mountain Point, Rayco, Willowbrook, and Heater Utilities, Inc. (Heater) into Aqua NC in Docket Nos. W-218, Sub 273; W-787, Sub 38; W-1032, Sub 11; W-989, Sub 11; W-899, Sub 39; W-981, Sub 13; and W-274, Sub 687. Consequently, subsequent filings related to such rate case applications have been accumulated in Docket No. W-218, Sub 274.

1 PLACE: Dobbs-Building, Raleigh, North Carolina.

2 DATE: Tuesday, February 3, 2009

3 DOCKET NO.: W-218, Sub 274; W-224, Sub 15

4 TIME IN SESSION: 9:00 a.m. - 10:55 a.m.

5 BEFORE: Commissioner William T. Culpepper, III Presiding  
6 Chairman Edward S. Finley, Jr.  
7 Commissioner Lorinzo L. Joyner

7 IN THE MATTER OF:

8 Applications by Aqua North Carolina, Inc., Rayco  
9 Utilities., Fairway Utilities, Inc., Glynnwood Water  
10 Systems, Inc., Mountain Point Utilities, Inc., Willowbrook  
11 Utility Company, Inc., Heater Utilities Inc., and Mobile  
12 Hill Estates for Authority to Increase Rates.

12 A P P E A R A N C E S:

13 AQUA NORTH CAROLINA, INC.

14 Jo Anne Sanford  
15 P.O. Box 28085  
16 Raleigh, North Carolina 27611

17 Blythe Clifford  
18 Clifford Law Firm, PLLC  
19 P.O. Box 37458  
20 Raleigh, North Carolina 27627

20 USING AND CONSUMING PUBLIC

21 Elizabeth Denning Szafran  
22 4326 Mail Service Center  
23 Raleigh, North Carolina 27699-4326

23 Margaret A. Force  
24 N.C. Department of Justice  
P.O. Box 629  
Raleigh, North Carolina 27602

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COMMISSIONER CULPEPPER: Good morning. Let's come to order please and go on the record. I am Commissioner Bill Culpepper of the North Carolina Utilities Commission and with me is Commission Chairman Edward S. Finley, Jr. and Commissioner Lorinzo L. Joyner.

The Commission now calls for hearing at this time Docket Nos. W-218, Sub 274 and W-224, Sub 15 - In the Matter of Applications by Aqua North Carolina, Inc.; Rayco Utilities, Inc; Fairview(sic) Utilities, Inc; Glymwood Water Systems, Inc; Mountain Point Utilities, Inc; Willowbrook Utility Company, Inc; Heater Utilities, Inc; and Mobile Hill Estates for Authority to Increase Rates.

On February 29, 2008, pursuant to Commission Rule R1-17(a), the utilities gave advance notice of their intentions to file general rate cases.

On July 18, 2008, the utilities jointly filed their Applications For Authority To Increase Rates. In support of their requests, the Joint Applicants state that during the test year ended December 31, 2007, they experienced an overall rate of return of 7.45% for water and a -.49% for sewer and that, after ratemaking adjustments, their overall rate of return is 2.60% for water and -2.08% for sewer. According to the Applicants, the revised consolidated tariffs filed with the

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PLACE: Dobbs Building, Raleigh, North Carolina

DATE: Tuesday, February 3, 2009

DOCKET NO.: W-218, Sub 274 and W-224, Sub 15

TIME IN SESSION: 11:07 A.M. --- 2:39 P.M.

BEFORE: Commissioner William T. Culpepper, Presiding  
Chairman Edward S. Finley, Jr.  
Commissioner Lorinzo L. Joyner

IN THE MATTER OF:

Volume II

Aqua North Carolina, Inc., and Mobile Hill Estates:  
Application for Authority to Increase Rates

A P P E A R A N C E S:

FOR AQUA NORTH CAROLINA, INC.:

Jo Anne Sanford  
Sanford Law Office, PLLC  
P.O. Box 28085  
Raleigh, North Carolina 27611

C. Blythe Clifford  
Clifford Law Firm, PLLC  
P.O. Box 27458  
Raleigh, North Carolina 27627

FOR THE USING AND CONSUMING PUBLIC:

~~Elizabeth Denning Szafran, Staff Attorney~~  
~~Public Staff - North Carolina Utilities Commission~~  
4326 Mail Service Center  
Raleigh, North Carolina 27699-4326

Margaret A. Force, Assistant Attorney General  
North Carolina Department of Justice  
P.O. Box 629  
Raleigh, North Carolina 27602

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PLACE: Holiday Inn Express, ~~Jonesville, North Carolina~~ 6

DATE: ~~Monday, December 8, 2008~~

DOCKET NO.: ~~W-218, Sub 274~~; W-224, Sub 15

TIME IN SESSION: ~~7:00 p.m. - 8:15 p.m.~~

BEFORE: Commissioner William T. Culpepper, III Presiding  
Chairman Edward S. Finley, Jr.

IN THE MATTER OF:

Applications by Aqua North Carolina, Inc., Rayco  
Utilities., Fairway Utilities, Inc., Glynnwood Water  
Systems, Inc., Mountain Point Utilities, Inc., Willowbrook  
Utility Company, Inc., Heater Utilities Inc., and Mobile  
Hill Estates for Authority to Increase Rates.

A P P E A R A N C E S:

AQUA NORTH CAROLINA, INC.

Blythe Clifford  
Clifford Law Firm, PLLC  
P.O. Box 37458  
Raleigh, North Carolina 27627

USING AND CONSUMING PUBLIC

~~Antionette-Wike~~  
4326 Mail Service Center  
Raleigh, North Carolina 27699-4326

1                   COMMISSIONER CULPEPPER: Good evening. Let's  
 2 come to order please and go on the record. I am  
 3 Commissioner Bill Culpepper of the North Carolina  
 4 Utilities Commission and with me is Commission Chairman  
 5 Edward S. Finley, Jr. The Commission now calls for  
 6 hearing at this time for the purpose of taking non-expert  
 7 public witness testimony Docket Nos. W-218, Sub 274 and  
 8 W-224, Sub 15 - In the Matter of Applications by Aqua  
 9 North Carolina, Inc., Rayco Utilities, Inc., Fairway  
 10 Utilities, Inc., Glynnwood Water Systems, Inc., Mountain  
 11 Point Utilities, Inc., Willowbrook Utility Company, Inc.,  
 12 Heater Utilities, Inc. and Mobile Hill Estates for  
 13 Authority to Increase Rates.

14                   On February 29, 2008, pursuant to Commission  
 15 Rule R1-17(a), the utilities gave advance notice of their  
 16 intentions to file general rate cases.

17                   On July 18, 2008 the utilities jointly filed  
 18 their Applications For Authority To Increase Rates. In  
 19 support of their requests, the Joint Applicants state that  
 20 during the test year ended December, 2007 they experienced  
 21 an overall rate of return of 7.45% for water and a -.49%  
 22 for sewer and that, after ratemaking adjustments, their  
 23 overall rate of return is 2.60% for water and -2.08% for  
 24 sewer. According to the Applicants, the revised



OFFICIAL COPY

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PLACE: ~~Cultural-Art, Greensboro, North Carolina~~

DATE: ~~Tuesday, December 9, 2008~~

DOCKET NO.: ~~W-218, Sub-274,~~ W-224, Sub 15

TIME IN SESSION: ~~7:00 p.m. -- 9:45 p.m.~~

BEFORE: Commissioner William T. Culpepper, III Presiding  
Chairman Edward S. Finley, Jr.

IN THE MATTER OF:

Applications by Aqua North Carolina, Inc., Rayco  
Utilities., Fairway Utilities, Inc., Glynnwood Water  
Systems, Inc., Mountain Point Utilities, Inc., Willowbrook  
Utility Company, Inc., Heater Utilities Inc., and Mobile  
Hill Estates for Authority to Increase Rates.

A P P E A R A N C E S:

AQUA NORTH CAROLINA, INC.

Blythe Clifford  
Clifford Law Firm, PLLC  
P.O. Box 37458  
Raleigh, North Carolina 27627

USING AND CONSUMING PUBLIC

~~Antionette-Wike~~  
4326 Mail Service Center  
Raleigh, North Carolina 27699-4326

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COMMISSIONER CULPEPPER: Good evening. Let's come to order, please, and go on the record. I am Commissioner Bill Culpepper of the North Carolina Utilities Commission and with me is Commission Chairman Edward S. Finley, Jr.

The Commission now calls for hearing at this time for the purpose of taking non-expert public witness testimony Docket Nos. W-218, Sub 274 and W-224, Sub 15 - In the Matter of Applications by Aqua North Carolina, Inc; Rayco Utilities, Inc; fairway Utilities, Inc; Glynnwood Water Systems, Inc; Mountain Point Utilities, Inc; Willowbrook Utility Company, Inc; heater Utilities, Inc; and Mobile Hill Estates for Authority to Increase Rates.

On February 29, 2008, pursuant to Commission Rule R1-17(a), the utilities gave advance notice of their intentions to file general rate cases.

On July 18, 2008, the utilities jointly filed their Applications For Authority To Increase Rates. In support of their requests, the Joint Applicants state that during the test year ended December, 2007, they experienced an overall rate of return of 7.45 percent for water and a -.49 percent for sewer and that, after ratemaking adjustments, their overall rate of return is 2.60 percent for water and -2.08 percent for sewer.

1 PLACE: Dobbs Building, Raleigh, North Carolina

2 DATE: Monday, December 1, 2008

3 DOCKET NO.: W-218, Sub-274 and W-224, Sub 15

4 TIME IN SESSION: 7:00 P.M. --- 10:27 P.M.

5 BEFORE: Commissioner William T. Culpepper, III, Presiding  
6 Chairman Edward S. Finley, Jr.

7 IN THE MATTER OF:

8 Aqua North Carolina, Inc., and Mobile Hill Estates:  
9 Application for Authority to Increase Rates

10 A P P E A R A N C E S:

11 FOR AQUA NORTH CAROLINA:

12 Jo Anne Sanford  
13 Sanford Law Office, PLLC  
14 P.O. Box 28085  
Raleigh, North Carolina 27611

15 C. Blythe Clifford  
16 Clifford Law Firm, PLLC  
P.O. Box 27458  
Raleigh, North Carolina 27612

17

18 FOR THE USING AND CONSUMING PUBLIC:

19 James D. Little  
20 Elizabeth Denning Szafran  
Public Staff - North Carolina Utilities Commission  
4326 Mail Service Center  
21 Raleigh, North Carolina 27699-4326

22 Margaret Force  
23 North Carolina Department of Justice  
P.O. Box 629  
24 Raleigh, North Carolina 27602-0629

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1 PLACE: Judicial Building, Wilmington, North Carolina

2 DATE: Monday, November 24, 2008

3 DOCKET NO.: LM-218-Sub-274 and W-224, Sub 15

4 TIME IN SESSION: 7:00 p.m. - 9:30 p.m.

5 BEFORE: Commissioner William T. Culpepper, III, Presiding  
Chairman Edward S. Finley, Jr.  
Commissioner Lorenzo L. Joyner

6 IN THE MATTER OF

7 Applications by Aqua North Carolina, Inc., Rayco  
Utilities, Fairway Utilities, Inc., Glynnwood Water  
Systems, Inc., Mountain Point Utilities, Inc., Willowbrook  
Utility Company, Inc., Heater Utilities Inc., and Mobile  
Hill Estates for Authority to Increase Rates.

8 A P P E A R A N C E S:

9 AQUA NORTH CAROLINA, INC.

10 Jo Anne Sanford.

11 Sanford Law Firm.

12 P.O. Box 28085

13 Raleigh, North Carolina 27611-8085

14 USING AND CONSUMING PUBLIC

15 Elizabeth Deming-Szafra

16 4326 Mail Service Center

17 Raleigh, North Carolina 27699-4326

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COMMISSIONER CULPEPPER: Good evening. Let's come to order please and go on the record. I am Commissioner Bill Culpepper of the North Carolina Utilities Commission and with me is Commission Chairman Edward F. Finley, Jr. and Commissioner Lorinzo L. Joyner. The Commission now calls for hearing at this time for the purpose of taking public witness testimony Docket Nos. W-218, Sub 274 and W-224, Sub 15 - In the Matter of Applications by Aqua North Carolina, Inc., Rayco Utilities, Inc., Fairway Utilities, Inc., Glynnwood Water Systems, Inc., Mountain Point Utilities, Inc.; Willowbrook Utility Company, Inc., Heater Utilities, Inc. and Mobile Hill Estates for Authority to Increase Rates.

On February 29, 2008, pursuant to Commission Rule R1-17(a), the utilities gave advance notice of their intentions to file general rate cases.

On July 18, 2008 the utilities jointly filed their Applications For Authority To Increase Rates. In support of their requests, the Joint Applicants state that during the test year ended December, 2007 they experienced an overall rate of return of 7.45% for water and a -.49% for sewer and that, after ratemaking adjustments, their overall rate of return is 2.60% for water and -2.08% for sewer. According to the Applicants, the revised

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PLACE: Village Hall Assembly Room, Pinehurst, North  
Carolina

DATE: Friday, November 21, 2008

DOCKET NO.: W-218, Sub 274 and W-224, Sub 15

TIME IN SESSION: 1:00 p.m. - 1:15 p.m.

BEFORE: Commissioner William T. Culpepper, III, Presiding  
Commissioner Lorinzo L. Joyner

IN THE MATTER OF

Applications by Aqua North Carolina, Inc., Rayco  
Utilities., Fairway Utilities, Inc., Glynwood Water  
Systems, Inc., Mountain Point Utilities, Inc., Willowbrook  
Utility Company, Inc., Heater Utilities Inc., and Mobile  
Hill Estates for Authority to Increase Rates.

A P P E A R A N C E S:

AQUA NORTH CAROLINA, INC.

C. Blythe Clifford  
Clifford Law Firm, PLLC  
P.O. Box 37458  
Raleigh, North Carolina 27627

USING AND CONSUMING PUBLIC

James D. Little  
4326 Mail Service Center  
Raleigh, North Carolina 27699-4326



1 COMMISSIONER CULPEPPER: Good afternoon. Let's  
 2 come to order please and go on the record. I am  
 3 Commissioner Bill Culpepper of the North Carolina  
 4 Utilities Commission and with me is Commissioner Lorinzo  
 5 L. Joyner. The Commission now calls for hearing at this  
 6 time for the purpose of taking public witness testimony  
 7 Docket Nos. W-218, Sub 274 and W-224, Sub 15 - In the  
 8 Matter of Applications by Aqua North Carolina, Inc., Rayco  
 9 Utilities, Inc., Fairway Utilities, Inc., Glynnwood Water  
 10 Systems, Inc., Mountain Point Utilities, Inc., Willowbrook  
 11 Utility Company, Inc.; Heater Utilities, Inc. and Mobile  
 12 Hill Estates for Authority to Increase Rates.

13 On February 29, 2008, pursuant to Commission  
 14 Rule R1-17(a), the utilities gave advance notice of their  
 15 intentions to file general rate cases.

16 On July 18, 2008 the utilities jointly filed  
 17 their Applications For Authority To Increase Rates. In  
 18 support of their requests, the Joint Applicants state that  
 19 during the test year ended December, 2007 they experienced  
 20 an overall rate of return of 7.45% for water and a -.49%  
 21 for sewer and that, after ratemaking adjustments, their  
 22 overall rate of return is 2.60% for water and -2.08% for  
 23 sewer. According to the Applicants, the revised  
 24 consolidated tariffs filed with the Applications are

PLACE: District Court Building, Courtroom B  
Hickory, NC

DATE: October 30, 2008

DOCKET NO.: W-218, Sub 274 and W-224, Sub 15

TIME IN SESSION: 7:00 P.M. TO 9:11 P.M.

BEFORE: Chairman Edward S. Finley, Jr., Presiding  
Commissioner Lorinzo L. Joyner

IN THE MATTER OF:

Application for Authority to  
Increase Rates

VOLUME 1

A P P E A R A N C E S :

FOR AQUA NORTH CAROLINA, INC.:

Jo Anne Sanford  
Sanford Law Office, PLLC  
Post Office Box 28085  
Raleigh, NC 27611

C. Blythe Clifford  
Clifford Law Firm, PLLC  
Post Office Box 37458  
Raleigh, NC 27627

FOR THE USING AND CONSUMING PUBLIC:

James D. Little  
Staff Attorney  
Public Staff - NC Utilities Commission  
4326 Mail Service Center  
Raleigh, North Carolina 27699-4326

T A B L E O F C O N T E N T S

<u>WITNESS</u>	<u>EXAMINATION</u>	<u>PAGE NO.</u>
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W-218, Sub 274/W-224, Sub 15

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HUNTER EX. 1	29/36
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PLACE: Henderson County Courthouse  
Hendersonville, NC

DATE: October 29, 2008

DOCKET NO.: W-218, Sub-274 and W-224, Sub 15

TIME IN SESSION: 1:01 P.M. TO 1:38 P.M.

BEFORE: Commissioner William T. Culpepper, III  
Chairman Edward S. Finley, Jr.

IN THE MATTER OF:

Application for Authority to  
Increase Rates

VOLUME 1

A P P E A R A N C E S :

FOR AQUA NORTH CAROLINA, INC.:

Jo Anne Sanford  
Sanford Law Office, PLLC  
Post Office Box 28085  
Raleigh, NC 27611

C. Blythe Clifford  
Clifford Law Firm, PLLC  
Post Office Box 37458  
Raleigh, NC 27627

FOR THE USING AND CONSUMING PUBLIC:

James D. Little  
Staff Attorney  
Public Staff - NC Utilities Commission  
4326 Mail Service Center  
Raleigh, North Carolina 27699-4326

W-218, SUB 274/W-224, SUB 15

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<u>WITNESS</u>	<u>EXAMINATION</u>	<u>PAGE NO.</u>
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E X H I B I T S

EXHIBIT

PAGE NO.  
IDENTIFIED/ADMITTED

(NO EXHIBITS MARKED)

PLACE: Mecklenburg Government Center  
Charlotte, NC

DATE: ~~October 28, 2008~~

DOCKET NO.: ~~W-218, Sub 274~~ and W-224, Sub 15

TIME IN SESSION: ~~7:03 P.M. TO 9:31 P.M.~~

BEFORE: Commissioner William T. Culpepper, III  
Chairman Edward S. Finley, Jr.  
Commissioner Lorinzo L. Joyner

IN THE MATTER OF:

Application for Authority to  
Increase Rates

VOLUME 1

A P P E A R A N C E S :

FOR AQUA NORTH CAROLINA, INC.:

Jo Anne Sanford  
Sanford Law Office, PLLC  
Post Office Box 28085  
Raleigh, NC 27611

C. Blythe Clifford  
Clifford Law Firm, PLLC  
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Raleigh, NC 27627

FOR THE USING AND CONSUMING PUBLIC:

~~James D. Little~~  
Staff Attorney  
Public Staff - NC Utilities Commission  
4326 Mail Service Center  
Raleigh, North Carolina 27699-4326

T A B L E O F C O N T E N T S

<u>WITNESS</u>	<u>EXAMINATION</u>	<u>PAGE NO.</u>
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MARTHA NEWMAN	DIRECT (LITTLE)	48
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TOM ROTHROCK	DIRECT (LITTLE)	82
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-3-

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E X H I B I T S

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ROTHROCK EX. 1	86/87
ROTHROCK EX. 2	86/87

IA

Central Johnston County Regional Wastewater Treatment Facilities Improvements  
Completed 2002 - Present

~~1. 2003 Wastewater Facilities Improvements - WWTP Expansion from 5.0 MGD to 7.0 MGD;  
Completed in 2004~~

2. BioSolids Facilities - New facility construction for biosolids processing at the Johnston County Landfill; Completed in 2004
3. WWTP SCADA improvements including data highway additions an aeration basin D.O. controls; Completed in 2005
4. BioSolids Mechanical Screen Installation and Receiving Station; Completed in 2007.
5. WWTF Demolition - Removal of three sludge drying beds, belt press building, cascade aerator, sludge belt press, sludge conveyor and associated piping and appurtenances; Completed in 2007

~~6. 2006 Wastewater Facilities Improvements - WWTP Expansion from 7.0 MGD to 9.5 MGD;  
Completed in 2009~~

7. BioSolids Facilities Expansion - Expanded biosolids facilities at the landfill site to treat sludge from expanded wwtp; Completed in 2009
8. Operators Building Equipment and Piping Demolition - Demolition of equipment and out of service piping; Completed 2010
9. Miscellaneous Painting - Protective coating system for blower buildings, DAF building, clarifiers 1 & 2, digester building, fuel tanks and other surfaces; Completed in 2010
10. Asphalt Resurfacing of WWTP Site - Completed in 2010
11. BioSolids Maintenance Building - Maintenance/Storage building construction; Completed 2010
12. WWTP Laboratory Repairs - Repairs to foundation, ceiling, walls, light fixtures, and HVAC; Completed in 2011
13. WWTP Maintenance Building - New maintenance building (approx. 2,016 sq ft), including all foundation excavation and grading, concrete drive, electrical work and fine grading/seeding; Completed 2011
14. WWTP Energy Efficiency Project - Miscellaneous improvements to include lighting replacement, minor piping and valve improvements and electrical and instrumentation improvements to improve energy efficiency; Completed in 2011
15. BioSolids Facility Recycle Force Main Extension; Completed in 2012
16. WWTP process pH monitoring and chemical system upgrades for alkinility control, phosphorous removal, and methanol feed; Completed in 2015

## Grantmyre, William

---

**n:** Chandra-Farmer <chandra.farmer@johnstonnc.com>  
**Sent:** Wednesday, September 12, 2018 6:10 PM  
**To:** Grantmyre, William  
**Cc:** Junis, Charles M; Darden, Lindsay Q; Tim Broome  
**Subject:** [External] RE: Johnston County Wastewater Treatment Plant Upgrades and Expansions  
**Attachments:** WWTP Improvements Since 2002.09.05.18.docx

**CAUTION:** External email. Do not click links or open attachments unless verified. Send all suspicious email as an attachment to [Report Spam](#).

Mr. Grantmyre,

In response to your request, please find attached a summary of the Johnston County WWTP projects from 2002 to date. Please let me know if you have any questions or need additional information.

Thanks,  
Chandra

Chandra-Cox-Farmer, PE  
Director

Johnston County Department of Public Utilities

Box 2263  
E. Market St.  
Smithfield, NC 27577  
(919) 209-8333  
(919) 934-7174 (fax)

---

**From:** Grantmyre, William [mailto:william.grantmyre@psncuc.nc.gov]  
**Sent:** Wednesday, September 5, 2018 4:38 PM  
**To:** chandra.farmer@johnstonnc.com  
**Cc:** Junis, Charles M <Charles.Junis@psncuc.nc.gov>; Darden, Lindsay Q <Lindsay.Darden@psncuc.nc.gov>  
**Subject:** Johnston County Wastewater Treatment Plant Upgrades and Expansions

Chandra

Could you or Tim Broome provide a brief summary of the major upgrades, renovations and expansions to the Johnston County Wastewater Treatment Plant from 2002 to date.

It does not need to be detailed or comprehensive, as the Public Staff would simply like an outline of the approximate year and brief description on the upgrades, renovations and/or expansions.

It is not necessary to provide cost data.

there is a history from an engineering study, that would be great.

Thanks  
Bill Grantmyre

Staff Attorney- Public Staff  
919-733-0977

---

Email correspondence to and from this address may be subject to the North Carolina Public Records Law and may be disclosed to third parties by an authorized state official.

Public Staff Becker  
Rebuttal Cross  
Exem Exhibit 13. #A



**NORTH CAROLINA  
PUBLIC STAFF  
UTILITIES COMMISSION**

June 19, 2018

Aqua North Carolina, Inc.  
Attention: Shannon Becker  
202 MacKenan Court  
Cary, NC 27511

Dear Mr. Becker:

Re: Johnston County Wastewater Capacity

I am writing in response to Aqua's inquiry regarding the Public Staff's position on whether Aqua should purchase wastewater capacity from Johnston County (County) and, if so, how much and when. Aqua brought this issue to the Public Staff's attention during a meeting on April 20, 2018, and it and the related issues of the Flowers Plantation Development and Aqua's infrastructure and options to expand its wastewater treatment capacity were further discussed at subsequent meetings on May 23 and June 14, 2018.

It is the Public Staff's opinion that it would be prudent for Aqua to purchase from the County wastewater treatment and transmission capacity in the same quantity (rounded up to the nearest 25,000 gpd increment) for which Aqua has received contribution in aid of construction (CIAC) payments from developers. In addition, it is the Public Staff's opinion that it would be prudent for Aqua to attempt to re-negotiate its contract with developer Rebecca Flowers (Developer) such that Aqua will purchase additional capacity from the County at the rate of \$8.48 per gpd, and the Developer and any secondary developer will pay Aqua CIAC at the same rate, along with carrying costs

Executive Director  
(919) 733-2435

Communications  
(919) 733-2810

Economic Research  
(919) 733-2902

Legal  
(919) 733-6110

Transportation  
(919) 733-7766

Accounting  
(919) 733-4279

Consumer Services  
(919) 733-9277

Electric  
(919) 733-4326

Natural Gas  
(919) 733-2267

Water  
(919) 733-5610

incurred on amounts expended for Aqua's purchase of capacity prior to receipt of payment from the Developer. Aqua should negotiate with the Developer to recover its carrying costs for the capacity it purchases now to serve future customers. Such an arrangement would likely be less costly to developers than what they would pay under the current agreement between Aqua and the Developer. That agreement provides that the Developer and secondary developers pay Aqua the "County's then current bulk wastewater capacity fee," and it is the Public Staff's opinion that the County's capacity fee will likely materially increase over time.

Sincerely,



Charles M. Junis, PE  
Engineer  
Public Staff - North Carolina Utilities Commission



AQUA

35900139622

## CLOSING MEMO

To: Tammy B., Judy Q., Lori M., Michael M., Mark E., Lynn P., Colton J.,  
Lorrie S., Dennis M., Roger Tupps

CC: Tom R., Ruffin P., Moses T.

From: Peggy D.

Date: June 3, 2015

Subject: South Quarter, Phase 1 Subdivision POD 6B

Service: Water & Wastewater Service

No of Lots: 10 connections with this Closing

Served by Assets: Lots 1-8; 27; 28

Installed:

Cost Certification: Water: \$42,244; Sewer: \$90,216.48

Purchase Price: \$400 paid quarterly as connections are made to the system. Payable to  
J & J Flowers Finch, Inc.

1-239

AIC 105015

CWIP  
CONTRIB  
PROP.

\$400 x 10 = \$4,000

AIC 252052

On, December 5, 2015 J & J Flowers Finch, Inc. (Developer) satisfied the requirement of closing and transferred the water and wastewater Assets serving 10 residential connections in South Quarter, Phase 1 Subdivision to Aqua for ownership, operation, maintenance and repair South Quarter is a portion of the Flowers Plantation Master System located in Johnston County. Future construction is required to reach full build of approximately 28 residential connections.

Pursuant to the signed Agreement dated March 29, 2013, Developer, at Developer's cost, was required to install a Water Utility System and a Collection System, including interconnection to Aqua's existing Flowers Plantation Master System, to serve approximately 28 residential connections. Aqua, as its investment, agreed to issue a \$400/SFRE purchase price payment to Developer, paid quarterly as connections are made to the water system.

DEH issued permit approval of the water system in S/N 15-00138 on April 23, 2015 which included the installation and construction of approximately 1,950 of 6" main and appurtenances to serve 28 lots.



DWQ issued permit approval of the collection system in permit number WQ0037629 on March 3, 2015 which included the installation and construction of approximately 1,570 lf of 8" gravity sewer and appurtenances to serve 28 three-bedroom homes with a discharge of 6,720 gpd of domestic wastewater.

Additional information for this project can be found in the following electronic file folder: H:\Systems\Central Regional Systems\Cary Regional Office Systems\South Quarter - Flowers

Please update all records accordingly.

Written Certification of Costs Form - Water

Date: May 15, 2015

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

Following is the information you requested for the Water Utility System serving South Quarter, Phase One - PARTIAL Subdivision, A/K/A Flowers POD 6B. This cost certification is for the distribution system serving Lot Nos. 1-8, and 27-28. A total of 10 Lots.

QTY	UOM	Description	Total Invoiced Costs
1	LS	Engineering	\$2,500.00
970	LF	Mains (Size 6" )	\$33,744.00
10	EA	Services	\$6,000.00
TOTALS			\$42,244.00

I certify the above represents the actual cost for installation of the Water Utility System serving the Subdivision.

*J. Michael Stocks*  
Signature

J. Michael Stocks  
Printed Name



Written Certification of Costs Form  
Wastewater

Date: May 15, 2015

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

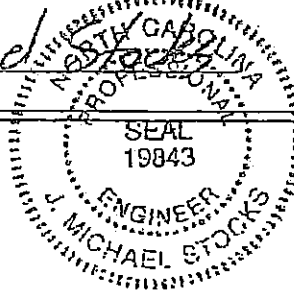
Following is the information you requested for the Collection System serving South Quarter, Phase One – PARTIAL Subdivision A/K/A Flowers POD 6B. This cost certification is for the collection system serving Lot Nos. 1-8, and 27-29. A total of 10 Lots.

QTY	UOM	DESCRIPTION	Total Invoiced Cost
1	LS	Engineering	\$2,500.00
1449	LF	Sewer Mains - <u>8 "</u>	\$61,491.48
7	EA	Manholes	\$18,725.00
10	EA	Sewer Services	\$7,500.00
		TOTALS	\$90,216.48

I certify the above represents the actual cost for installation of the Collection System serving the Subdivision.

*J. Michael Stocks*  
Signature

J. Michael Stocks  
Printed Name



5/20/15

**LAWSON**

General Ledger Journal Entry

Company	35	Source Code	JE
Fiscal Year	2017	Desc Default	J
Accr. Period	2	Reference	
System Code	GL	Post Date	2/28/2017
JE Type	N	Auto Reverse	N
Description	DEV CERT Trillium, Ph 3 1-224		

Reset/Add Button Clear Form

Result: GL40.2 Journal header added - continue  
 Result: GL40.1 Upload to GL40.1 Completed without Errors

To Company	Accounting Unit	Base Account	Sub Account	Activity	Account Category	Amount	Units	Journal Entry Line Description
	8000	105015		35800073451		2,300.00		Eng Trillium 1-224 304
	8000	105015		35800073451		45,828.16		Mains Trillium 1-224 331
	8000	105015		35800073451		1,800.00		Serv Trillium 1-224 333
	8000	105016		35800073451		12,000.00		Serv Trillium 1-224 333
	8000	252052		35800003381		(12,000.00)		
	8000	271302		35800073452		(2,300.00)		CIAC Eng Trillium 1-224 304
	8000	271302		35800073452		(45,828.16)		CIAC Mains Trillium 1-224 331
	8000	271302		35800073452		(1,800.00)		CIAC Serv Trillium 1-224 333
	8800	105015		35880073453		2,300.00		Eng Trillium 1-224 354
	8800	105015		35880073453		31,279.32		Mains Trillium 1-224 361
	8800	105015		35880073453		17,250.00		Serv Trillium 1-224 363
	8800	271302		35880073454		(2,300.00)		CIAC Eng Trillium 1-224 354
	8800	271302		35880073454		(31,279.32)		CIAC Mains Trillium 1-224 361
	8800	271302		35880073454		(17,250.00)		CIAC Serv Trillium 1-224 363
					Water Sewer			
				Developer Cost Certification		61,828.16	50,828.32	
				Less Purchase Price		(12,000.00)		
				Subtotal		49,828.16	50,828.32	
				Less CIAC Previously Booked				
				Amount CIAC to Book		49,828.16	50,828.32	

bth-11

Prepared by: T. Bernard

Approved by: *[Signature]* 3/20/17

Date prepared: 3/1/17

# AQUA

## CLOSING MEMO

359001 93490

**To:** Tammy B., Judy Q., Lori M., Michael M., Mark E., Lynn P., Lorrie S., Dennis M., Roger Tupps

**CC:** Shannon B., Ruffin P., Moses T.

**From:** Peggy D.

**Date:** December 21, 2016

**Subject:** Trillium, Phase 3 Subdivision

**Service:** Water & Wastewater Service

**No of Lots Served by Assets Installed:** 30 connections with this Closing  
Lots 41, 42, 53, 72-76; 79-93

**Cost Certification:** Water: \$61,928.16; Sewer: \$50,829.32

**Purchase Price:** \$400 paid quarterly as connections are made to the system. Payable to DWF Development, Inc.

*1-2234*

*30 x \$400 = \$ 12,000*

On, December 21, 2016, DWF Development, Inc. (Developer) satisfied the requirement of closing and transferred to Aqua the water and wastewater Assets serving 30 residential connections in Trillium, Phase 3 Subdivision. Phase 3 lots are a portion of the lots permitted as Phase 2 by DENR. Trillium is part of the Flowers Plantation Master System located in Johnston County. Future construction is required to reach full build of approximately 115 residential connections.

Pursuant to the signed Agreement dated March 29, 2013, Developer, at Developer's cost, was required to install a Water Utility System and a Collection System, including interconnection to Aqua's existing Flowers Plantation Master System, to serve approximately 115 residential connections. Aqua, as its investment, agreed to issue a \$400/SFRE purchase price payment to Developer, paid quarterly as connections are made to the water system.

DEH issued permit approval of the water system in S/N 13-00931 on November 12, 2013 which included the installation and construction of approximately 1,660' of 8" main, 250' of 6" main, 940' of 4" main and appurtenances to serve 59 lots. The engineer issued Certification on July 21, 2016.

DWQ issued permit approval of the collection system in permit number WQ0036784 on October 16, 2013 which included the installation and construction of approximately 3,086 lf of 8" gravity sewer and appurtenances to serve 59 three-bedroom homes with a discharge of 14,160 gpd of domestic wastewater. Additional permitting will be necessary to reach full build-out. The engineer issued Partial Certification on July 21, 2016.

Additional information for this project can be found in the following electronic file folder: H:\Systems\Central Regional Systems\Cary Regional Office Systems\Trillium - Flowers Pod 9

Please update all records accordingly.

Written Certification of Costs Form - Water

Date: July 21, 2016

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

Following is the information you requested for the Water Utility System serving Trillium, Phase Two - Final Subdivision, A/K/A Flowers POD 9. This cost certification is for the distribution system serving Lot Nos. 41-42, 53, 72-76, and 79-93. A total of 23 Lots.

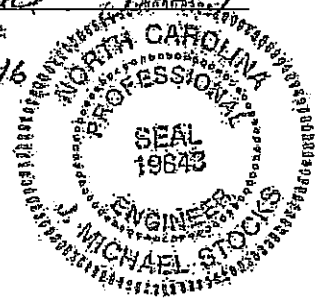
QTY	UOM	Description	Total Invoiced Costs
1	LS	Engineering	\$2,300.00
998	LF	Mains (Size 8" )	\$45,828.16
23	EA	Services	\$13,800.00
<b>TOTALS</b>			<b>\$61,928.16</b>

I certify the above represents the actual cost for installation of the Water Utility System serving the Subdivision.

J. Michael Stocks  
Signature:

J. Michael Stocks  
Printed Name

7/21/16



Written Certification of Costs Form  
Wastewater

Date: July 21, 2016

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

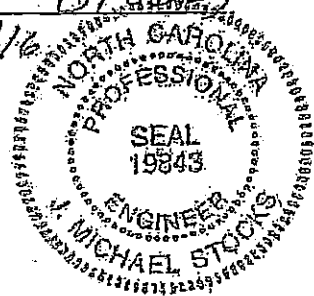
Following is the information you requested for the Collection System serving Trillium, Phase Two -- Final Subdivision A/K/A Flowers POD 9. This cost certification is for the collection system serving Lot Nos. 41-42, 53, 72-76 and 79-93. A total of 23 Lots.

QTY	UOM	DESCRIPTION	Total Invoiced Cost
1	LS	Engineering	\$2,300.00
983.59	LF	Sewer Mains - <u>8"</u>	\$17,904.32
5	EA	Manholes	\$13,375.00
23	EA	Sewer Services	\$17,250.00
		<b>TOTALS</b>	<b>\$50,829.32</b>

I certify the above represents the actual cost for installation of the Collection System serving the Subdivision.

*J. Michael Stocks*  
Signature 7/21/16

J. Michael Stocks  
Printed Name





**LAWSON**

General Ledger Journal Entry

Company	35	Source Code	JE
Fiscal Year	2017	Desc Default	J
Acct Period	2	Reference	
System Code	GL	Post Date	2/28/2017
JE Type	N	Auto Reverse	N
Description	DEVCERT Whitfield, Ph 1-953		

Reset Add Button Clear Form

Result: GL40.2 Journal header added - continue  
 Result: GL40.1 Upload to GL40.1 Completed without Errors

To Company	Accounting Unit	Base Account	Sub Account	Activity	Account Category	Amount	Units	Journal Entry Line Description
	8000	105015		35800073457		4,000.00		Eng Whitfield 1-953 304
	8000	105015		35800073457		80,319.46		Mains Whitfield 1-953 331
	8000	105015		35800073457		31,603.88		Serv Whitfield 1-953 333
	8000	105016		35800073457		16,000.00		Serv Whitfield 1-953 333
	8000	252052		35800072158		(16,000.00)		
	8000	271302		35800073458		(4,000.00)		CIAC Eng Whitfield 1-953 304
	8000	271302		35800073458		(80,319.46)		CIAC Mains Whitfield 1-953 331
	8000	271302		35800073458		(31,603.88)		CIAC Serv Whitfield 1-953 333
	8800	105015		35880073459		4,000.00		Eng Whitfield 1-953 354
	8800	105015		35880073459		104,708.46		Mains Whitfield 1-953 361
	8800	105015		35880073459		54,986.57		Serv Whitfield 1-953 363
	8800	271302		35880073460		(4,000.00)		CIAC Eng Whitfield 1-953 354
	8800	271302		35880073460		(104,708.46)		CIAC Mains Whitfield 1-953 361
	8800	271302		35880073460		(54,986.57)		CIAC Serv Whitfield 1-953 363
				Water	Sewer			
				131,923.34	163,695.03			
				(16,000.00)				
				115,923.34	163,695.03			
				115,923.34	163,695.03			

11-88

Prepared by: T. Bernard

Approved by: *[Signature]* 3/20/17

Date prepared: 3/2/17

AQUA

35900158973

## CLOSING MEMO

**To:** Tammy B., Judy Q., Lori M., Michael M., Mark E., Lynn P., Lorrie S.,  
Dennis M., Roger Tupps

**CC:** Shannon B., Ruffin P., Moses T.

**From:** Peggy D.

**Date:** December 21, 2016

**Subject:** Whitfield, Phase 1 Subdivision f/k/a Smith Cottages

**Service:** Water & Wastewater Service

**No of Lots Served by Assets Installed:** 40 connections with this Closing  
Lots 1-40

**Cost Certification:** Water: \$131,923.34; Sewer: \$163,695.57

**Purchase Price:** \$400 paid quarterly as connections are made to the system. Payable to  
Flagship Ventures, LLC.

1-953  
 $40 \times \$400 = 16,000$

On, March 28, 2016, Flagship Ventures, LLC (Developer) satisfied the requirement of closing and transferred to Aqua the water and wastewater Assets serving 40 residential connections in Whitfield at Flowers Plantation, Phase 1 Subdivision. Whitfield is part of the Flowers Plantation Master System located in Johnston County. Future construction is required to reach full build of approximately 84 residential connections.

Pursuant to the signed Agreement dated March 28, 2016 Developer, at Developer's cost, was required to install a Water Utility System and a Collection System, including interconnection to Aqua's existing Flowers Plantation Master System, to serve approximately 84 residential connections. Aqua, as its investment, agreed to issue a \$400/SFRE purchase price payment to Developer, paid quarterly as connections are made to the water system.

DEH issued permit approval of the water system in S/N 16-00219 on April 6, 2016 which included the installation and construction of approximately 2,615' of 6" main and appurtenances to serve 84 lots. The engineer issued Certification on December 12, 2016. Jacob Mueller of Engineering is forwarding the Applicant Certification to DENR.

DWQ issued permit approval of the collection system in permit number WQ0038385 on April 7, 2016 which included the installation and construction of approximately 2,817 lf of 8" gravity sewer and appurtenances to serve 84 three-bedroom homes with a discharge of 20,160 gpd of domestic wastewater. The engineer issued Partial Certification on December 12, 2016. Jacob Mueller is forwarding the Applicant Certification to the engineer for processing.

Additional information for this project can be found in the following electronic file folder: H:\Systems\Central Regional Systems\Cary Regional Office Systems\WHITFIELD AT FLOWERS AKA SMITH COTTAGES

Please update all records accordingly.



Written Certification of Costs Form  
Wastewater

Date: December 12, 2016

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

Following is the information you requested for the Collection System serving Whitfield @ Flowers Plantation - Partial Subdivision. This cost certification is for the collection system serving Lot Nos. 1-40. A total of 40 Lots.

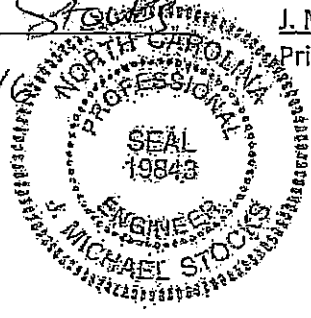
QTY	UDM	DESCRIPTION	Total Invoiced Cost
1	LS	Engineering	\$4,000.00
1,868	LF	Sewer Mains- .8 "	\$60,943.21
10	EA	Manholes	\$43,765.25
40	EA	Sewer Services	\$54,986.57
		<b>TOTALS</b>	<b>\$163,695.03</b>

I certify the above represents the actual cost for installation of the Collection System serving the Subdivision.

J. Michael Stocks  
Signature

J. Michael Stocks  
Printed Name

12/19/16





# AQUA

35900153260

## CLOSING MEMO

**To:** Tammy B., Judy Q., Lori M., Lynn P., Mark E., Rob K., Lorrie S., Roger T., Jackie J.

**CC:** Shannon B., Ruffin P., Moses T.

**From:** Peggy D.

**Date:** June 5, 2017

**Subject:** River Dell East, Phase 2

**Service:** Water & Sewer Service

**No of Lots Served by Assets Installed:** 23 connections with this Closing  
Lots 46-63; 79-83

**Cost Certification:** Water: \$68,867.00; Sewer: \$49,816.25

**Purchase Price:** \$400 per lot paid quarterly to DWF Development, Inc. as connections are made to the water system.

1-951

23 x \$400 = \$9,200

A closing for the above-mentioned took place on June 5, 2017. Aqua's standard rates and fees apply. Future construction is anticipated to reach full build out.

On June 3, 2015 Aqua and DWF Development, Inc. entered into an Agreement for the installation, ownership and operation of the water utility system and wastewater utility system serving the River Dell East Subdivision. Pursuant to the Agreement the Developer was required to install a water distribution system and a sewer collection system to serve approximately 164 residential connections. The Subdivision will be developed in phases.

Public Water Supply issued permit approval on June 2, 2016 in S/N 16-00389 which included the installation and construction of approximately 540' of 6" water main, 310' of 4" water main and appurtenances to serve 23 proposed connections in River Dell East Phase 2 (POD 12).

Division of Water Resources issued permit approval on May 12, 2016 which included the installation and construction of approximately 702 lf lf of 8" gravity sewer main to serve 23

proposed connections in River Dell East Phase 2 (POD 12) with 5.520 gpd of domestic wastewater discharged into Aqua's existing Neuse Colony WWTP.

The North Carolina Utilities Commission issued an Order granting franchise and approving rates in Docket No. W-218, Sub 430.

Additional information for this project can be found in the following electronic file folder: H:\Systems\Central Regional Systems\Cary Regional Office Systems\River Dell East POD NE12

Please update all records accordingly. Thanks!



Written Certification of Costs Form - Water

Date: March 13, 2017

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

Following is the information you requested for the Water Utility System serving Flowers Plantation – POD NE12 – River Dell East Phase Two Subdivision. This cost certification is for the distribution system serving Lot Nos. 46 - 63 and 79 - 83, 23 lots total.

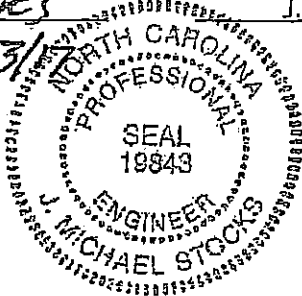
QTY	UOM	Description	Total Invoiced Costs
1	LS	Engineering	\$2,300
330	LF	Mains (Size 4")	\$12,312.08
550	LF	Mains (Size 6")	\$17,685.58
416	LF	Mains (Size 8")	\$16619.34
23	EA	Services @\$867.39/EA	\$19,950
TOTALS			\$68,867

I certify the above represents the actual cost for installation of the Water Utility System serving Flowers Plantation – POD NE12 – River Dell East Phase Two Subdivision.

J. Michael Stocks  
Signature

J. Michael Stocks  
Printed Name

3/13/17



Written Certification of Costs Form  
Wastewater

Date: March 13, 2017

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

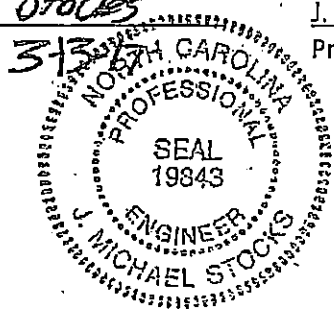
Following is the information you requested for the Collection System serving Flowers Plantation-POD NE12- River Dell East Phase Two - Final Subdivision. This cost certification is for the collection system serving Lot Nos. 46-63 and 79-83. A total of 23 Lots.

QTY	UOM	DESCRIPTION	Total Invoiced Cost
1	LS	Engineering	\$2,300.00
669	LF	Sewer Mains - <u>8"</u>	\$14,766.25
2	EA	Manholes	\$6,300.00
23	EA	Sewer Services	\$26,450.00
		<b>TOTALS</b>	<b>\$49,816.25</b>

I certify the above represents the actual cost for installation of the Collection System serving the Subdivision.

*J. Michael Stocks*  
Signature

J. Michael Stocks  
Printed Name



F/A

**Timeline of the Aqua Johnston County  
Wastewater Capacity Fees and Construction**

	<u>Capacity Fee GPD</u>
May 14, 2002 Bulk Wastewater Agreement	\$5.50
2003 Johnston County Wastewater Treatment Plant (WWTP) Expanded from 5.0 Million Gallons Per Day (MGD) to 7.0 MGD	
2006 Johnston County WWTP Expanded from 7.0 MGD to 9.5 MGD	
Aqua in an April 2018 PowerPoint presentation to the Public Staff stated that the capacity fee is \$8.48 GPD	
June 2018 Aqua Pays Johnston County for 250,000 GDP at \$8.48 GPD	\$8.48

Note: After the Public Staff informed Aqua in May 2018 that Aqua **undercollected**, Aqua in June 2018 asserts that the wastewater capacity fee has **decreased** in the 16 years from May 2002 to June 2018 to \$5.34 GPD.

I/A

Docket No. W-218, Sub 497

PUBLIC STAFF BECKER *Rebutta*  
CROSS EXAM EXHIBIT *16*

**Johnston County Capacity Fees Collected and  
Buffalo Creek Pump and Force Main CIAC  
Construction Reimbursements Not Collected  
Subsequent to the Update Cutoff of October 31, 2013  
in Aqua's Last General Rate Case, Docket No. W-218, Sub 363**

Johnston County Capacity Fees

Total Collected from Developers	\$2,000,925
Less: Collected Prior to October 31, 2013	<u>751,545</u>
Total Collected Subsequent To Sub 363	<u>\$1,249,380</u>

Buffalo Creek Pump Station CIAC  
NOT Collected Subsequent to October 31, 2013

Number of SFRE for which Aqua  
Did NOT Collect Capacity Fees

993.60 SFRE x \$220.41 per SFRE = \$ 218,999 Uncollected CIAC

Post Test-Year Plant Capital Expenditures

Utility Account	Rate Entity	Region	Asset Location/System	Work Order Description	Posting Date	Year	Qty	Amount
396700-Communication Equipment	ANC WW	ANC WW - Coast	CANNONSGATE SWR 01-176	RC Cannons WWTP Comm Upgrd	5/1/2018	2018	1	708,803.89
380000-Treatment & Disposal Equip	ANC WW	ANC WW - Coast	CANNONSGATE SWR 01-176	RC Cannonsgate Replace UV System	3/1/2018	2018	1	193,263.16
380000-Treatment & Disposal Equip	ANC WW	ANC WW - Coast	CANNONSGATE SWR 01-176	RC Cannonsgate Reno Spray Field	6/1/2018	2018	1	137,776.93
380000-Treatment & Disposal Equip	ANC WW	ANC WW - Coast	CANNONSGATE SWR 01-176	RC Cannons WWTP Comm Upgrd	5/1/2018	2018	1	55,730.10
380000-Treatment & Disposal Equip	ANC WW	ANC WW - Coast	CANNONSGATE SWR 01-176	Cannons Gare Paint/Repair Tanks	3/1/2018	2018	1	41,988.57
380000-Treatment & Disposal Equip	ANC WW	ANC WW - Coast	CANNONSGATE SWR 01-176	(B) WWTP Renov Cannonsgate	1/1/2018	2018	1	23,097.26
354000-Structures & Improvements	ANC WW	ANC WW - Coast	CANNONSGATE SWR 01-176	Cannonsgate Instl LS Quick Connects	5/1/2018	2018	1	16,847.73
354000-Structures & Improvements	ANC WW	ANC WW - Coast	CANNONSGATE SWR 01-176	RC Canns Gate Rplc 3 Set Ship Stair	5/1/2018	2018	1	16,282.81
354000-Structures & Improvements	ANC WW	ANC WW - Coast	CANNONSGATE SWR 01-176	RC Cannons WWTP Comm Upgrd	5/1/2018	2018	1	13,038.41
354000-Structures & Improvements	ANC WW	ANC WW - Coast	CANNONSGATE SWR 01-176	RC Cannonsgate Reno Spray Field	6/1/2018	2018	1	12,905.84
380000-Treatment & Disposal Equip	ANC WW	ANC WW - Coast	CANNONSGATE SWR 01-176	Cannons Gate Flow Meter/Bogue Watch	4/1/2018	2018	1	6,555.46
354000-Structures & Improvements	ANC WW	ANC WW - Coast	CANNONSGATE SWR 01-176	(B) Drive/Grounds Cannonsgate	2/1/2018	2018	1	4,270.00
380000-Treatment & Disposal Equip	ANC WW	ANC WW - Coast	CANNONSGATE SWR 01-176	(B) WWTP Renov Cannonsgate	12/1/2017	2017	1	2,881.79
380000-Treatment & Disposal Equip	ANC WW	ANC WW - Coast	CANNONSGATE SWR 01-176	(B) WWTP Elec Rpl Cannonsgate	3/1/2018	2018	1	2,775.50
354000-Structures & Improvements	ANC WW	ANC WW - Coast	CANNONSGATE SWR 01-176	(B) Drive/Grounds Cannonsgate	5/1/2018	2018	1	2,589.36
380000-Treatment & Disposal Equip	ANC WW	ANC WW - Coast	CANNONSGATE SWR 01-176	(B) WWTP Renov Cannonsgate	4/1/2018	2018	1	2,359.35
380000-Treatment & Disposal Equip	ANC WW	ANC WW - Coast	CANNONSGATE SWR 01-176	(B) WWTP Elec Rpl Cannonsgate	5/1/2018	2018	1	2,246.91
396700-Communication Equipment	ANC WW	ANC WW - Coast	CANNONSGATE SWR 01-176	(B) Rplc Remote Mon Cannonsgate	6/1/2018	2018	1	1,562.82
380000-Treatment & Disposal Equip	ANC WW	ANC WW - Coast	CANNONSGATE SWR 01-176	(B) WWTP Renov Cannonsgate	6/1/2018	2018	1	1,441.13
380000-Treatment & Disposal Equip	ANC WW	ANC WW - Coast	CANNONSGATE SWR 01-176	(B) WWTP Renov Cannonsgate	11/1/2017	2017	1	1,388.22
380000-Treatment & Disposal Equip	ANC WW	ANC WW - Coast	CANNONSGATE SWR 01-176	(B) WWTP Equip Rpl Cannonsgate	6/1/2018	2018	1	1,024.75
<b>Total</b>								<b>\$ 1,248,829.99</b>

*7/A*

I/A

Docket No. W-218, Sub 497

PUBLIC STAFF BECKER *Rebuttal*  
CROSS EXAM EXHIBIT *18*

**Aqua North Carolina  
Uniform Rate Wastewater**

**Public Staff Did Not Recommend  
an Excess Capacity Adjustment for Cannonsgate WWTP**

	<u>Permit No.</u>	<u>GPD Permitted Flow</u>	<u>June 2018 REU's</u>	<u>EOP Customers x Design Flow 400 GPD Per REU</u>	<u>Excess Capacity Percent</u>
Cannonsgate WWTP	WQ 0028666	250,000	27	10,800	95.7%

- (1) The Public Staff did not recommend an excess capacity adjustment for Cannonsgate as Aqua did NOT pay for the initial construction of the wastewater treatment plant and, therefore, did not assume the developer's risk of subdivision buildout.
- (2) The developer paid for the initial construction of the Cannonsgate wastewater treatment plant and collection system.
- (3) Aqua test year ending September 30, 2017 (application test year later updated to June 30, 2018), invested a total of \$1.249 Million for plant replacements and renovations at Cannonsgate due to equipment deterioration and depreciation over the past 13 years, as the wastewater treatment plant was constructed in 2005. All of Aqua's \$1.249 Million capital investment has been included in rate base in this Sub 497 proceeding.
- (4) Aqua paid for the initial construction costs of the wastewater treatment plants at Westfall and Legacy at Jordan Lake, and a 180,000 GPD wastewater treatment plant expansion at Carolina Meadows, thereby assuming the risks of the developers.

I/A

Public Staff  
Becker Rebuttal  
Cross Exam Exhibit 19 <sup>1</sup>

FORM REVISED 6/04

DOCKET NO. W-1118, Sub 3  
PURCHASER DOCKET NO. W-218, Sub 216  
FILING FEE RECEIVED \$250

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION  
APPLICATION FOR TRANSFER OF PUBLIC UTILITY FRANCHISE  
AND FOR APPROVAL OF RATES

**FILED**

JUN 28 2005

INSTRUCTIONS

Notes or explanations placed in the margins of the application are acceptable. If additional space is needed, supplementary sheets may be attached. If any section does not apply, write "not applicable" or cross out the section.

**N.C. Utilities Commission**

SELLER

- 1. Trade name used for utility business Chatham Water Reclamation Company, LLC
- 2. Mailing address P.O. Box 3923, Sanford, NC 27330
- 3. Business telephone number 919-775-2301

PURCHASER

- 4. Trade name used for utility business Aqua North Carolina, Inc.
- 5. Name of owner (if different from trade name)
- 6. Business mailing address P.O. Drawer 4889  
City and state Cary, NC Zip code 27519
- 7. Business street address (if different from mailing address)  
202 MacKenan Court, Cary, NC 27511
- 8. Business telephone number 919-487-7854
- 9. If corporation, list the following:
 

President	<u>Neil R. Phillips</u>	Vice President	Frank X. Simpson
Secretary	Roy Stahl	Treasurer	Kathy Pope

Three (3) largest stockholders and percent of voting shares held by each

- 10. If partnership, list the owners and percent of ownership held by each  
N/A

- 11. Is the purchaser acquiring the utility assets or stock?  
(No filing fee required if stock transfer only.)

**PROPOSED AND PRESENT RATES**

Proposed Rates

Present Rates

- 12. Metered Residential Service:
  - Water: N/A
  - Sewer: Same as rates approved in Docket No. W-1118, SUB 1
- 13. Flat Rate Residential Service:
  - Water: N/A
  - Sewer: See #12 above
- 14. Nonresidential Service (explain):
  - Water: N/A
  - Sewer: See #12 above for CWRC and line 31 for Carolina Meadows
- 15. Tap-on fees:
  - Water: N/A





**PURCHASER'S SERVICE ORGANIZATION**

	<u>NAME</u>	<u>ADDRESS</u>	<u>TELEPHONE</u>	
10.	General Manager	Neil R. Phillips	Cary, NC	919-467-7854
11.	Complaints or Billing	Donna Had	" "	" "
12.	Engineering Operations	Michael Myers	" "	" "
13.	Emergency Service	Peter Dealing	" "	" "
14.	Accounting	Greg Leighton	" "	" "
15.	Are the names and phone numbers shown above listed in the phone book by each of the proposed service areas? (yes or no) Yes			
16.	Will customers be able to make telephone calls for service without being charged for a long distance phone call? (yes or no) Yes			
17.	Will persons designated to receive phone calls for emergency service, after regular business hours, have authority to provide the needed repairs without first contacting owner? (yes or no) Yes			
18.	List the qualifications of the person in charge of the utility system: On file with the North Carolina Utilities Commission			
19.	List the date(s) and describe any DENR violation(s) since the last application for franchise, transfer, or rate increase: N/A			

**SERVICE AREA**

Fill in one column for each Subdivision or Service Area.

	(1)	(2)	(3)
1. Name of Subdivision(s) or Service Area(s)	All areas served by CWRC and see line 32 below	Carolina Meadows	
2. County (or Counties)	Chatham	Chatham	
3. Type of service (water, sewer, etc.)	Sewer	Sewer	
4. If water is purchased, list from whom	N/A	N/A	
5. Source of water supply (wells, etc.)	N/A	N/A	
6. Number of wells in service	N/A	N/A	
7. Pumping capacity of each pump in service	N/A	N/A	
8. Elevated storage tank capacity (gals.)	N/A	N/A	
9. Pressure tank capacity (gals.)	N/A	N/A	

-4-

10.	Types of water treatment (chlorine, etc.)	N/A	N/A
11.	Number of fire hydrants installed	N/A	N/A
12.	Is sewage disposal by septic tank or by sewer system?	Sewer System	Sewer System
13.	If disposal is by sewer system, is sewage treated by utility company or by others?	Utility	Utility
14.	Capacity of Company's sewage treatment plant (gallons per day)	180,000 gpd and see no. 33 below	n/a
15.	Is service metered? (yes or no)	Only commercial	yes
16.	Number of water meters in use	N/A	N/A
17.	Number of service taps in use (list number of each size)	Water N/A	N/A
		Sewer 232 residential, 242 apartments, 8 commercial, 71 townhomes	1 industrial
18.	Number of customers at the end of test year	Water N/A	N/A
		Sewer See no. 17 above	1 industrial
19.	Number of customers that can be served by mains already installed (including present customers, vacant lots, etc.)	Water N/A	N/A
		Sewer See no. 17 above	1 industrial
20.	Number of customers that can be served by pumping capacity	Water N/A	N/A
21.	Number of customers that can be served by storage tank capacity	Water N/A	N/A
22.	Number of customers that can be served by treatment plant capacity	Sewer 500 at 120gpd/br	N/A
23.	Name nearest water/sewer utility system	Chatham County	Chatham County
24.	Distance to nearest water/sewer utility system	Approx 1 mile	Approx 1 mile
25.	Does any other person or utility seek to furnish the service(s) proposed herein? (yes or no)	No	No
26.	Has the system been offered for sale to the customers, county, or municipality? (yes or no) If not, why not? No interest.	No	No
27.	a. DENR System I.D. No.	Water N/A	
	b. NPDES or Nondischarge Permit No.	Sewer NC0056413	NC0056413

FINANCIAL STATEMENT

- 1. Will a separate set of books be maintained for the utility business?  
Yes
- 2. Will a separate bank account be maintained for the utility business?  
Yes
- 3. Are the revenues and expenses listed below based on past operations or are they estimated for future operations?  
(actual or estimated) Estimated

REVENUES AND EXPENSES

	For 12 Months Ended	(Date)	
<u>Revenues</u>		<u>Water</u>	<u>Sewer</u>
4. Residential service (flat rate)	\$	N/A	\$ *See No. 34 Below
5. Residential service (metered rate)	\$	"	\$ "
6. Nonresidential service (flat rate)	\$	"	\$ "
7. Nonresidential service (metered rate)	\$	"	\$ "
8. Other revenues (describe in remarks below)	\$	"	\$ "
9. Total Revenues (Lines 4 thru 8)	\$	"	\$ "
10. Total salaries (except owner)	\$	"	\$ "
11. Salaries paid to owner	\$	"	\$ "
12. Administrative and office expense (except salaries)	\$	"	\$ "
13. Maintenance and repair expense (except salaries)	\$	"	\$ "
14. Transportation expenses	\$	"	\$ "
15. Electric power for pumping	\$	"	\$ "
16. Chemicals for treatment	\$	"	\$ "
17. Testing fees	\$	"	\$ "
18. Permit fees	\$	"	\$ "
19. Purchased water/sewer treatment	\$	"	\$ "
20. Annual depreciation	\$	"	\$ "
21. Taxes: State income taxes	\$	"	\$ "
22. Federal income taxes	\$	"	\$ "
23. Gross receipts (or franchise tax)	\$	"	\$ "
24. Property taxes	\$	"	\$ "
25. Payroll taxes	\$	"	\$ "
26. Other taxes	\$	"	\$ "
27. Interest on debt during year	\$	"	\$ "
28. Other expenses (describe in remarks below)	\$	"	\$ "
29. Total Expenses (Lines 10 thru 28)	\$	"	\$ "
30. Net Income (Line 9 minus Line 29)	\$	"	\$ "

Remarks

- 31. Carolina Meadows rates are set forth in the attached contract.
- 32. CWRC service area is further defined in the attached contract and in w1118, sub 1

- 33. ~~See attached contract re: expansion to 350,000 gpd~~
- 34. See Docket No. W-1118, Sub 1
- 35.

**NUMBER OF CUSTOMERS SERVED**

	<u>Water</u> <u>Flat Rate</u>	<u>Metered</u>	<u>Sewer</u> <u>Flat Rate</u>	<u>Metered</u>
36. Customers at beginning of year	<u>N/A</u>	<u>N/A</u>	<u>1</u>	<u>          </u>
37. Customers at end of year	<u>" "</u>	<u>" "</u>	<u>          </u>	<u>          </u>
38. Average gallons used per customer	<u>N/A</u>	<u>          </u>	<u>          </u>	<u>          </u> per month

**PURCHASER'S COST OF UTILITY SYSTEM**

- 1. List Purchaser's cost of utility systems:  
 Water: N/A  
 Sewer: See attached contracts

**ORIGINAL COST OF UTILITY SYSTEM**

As of Year Ended

(Date)

**Note:** List the total original cost to construct and establish the system, whether or not paid for by the Seller.

	Balance at End of Year	
	<u>Water</u>	<u>Sewer</u>
2. Land and rights-of-way	\$ N/A	\$ See No. 22 below.
3. Structures and site improvement	\$ "	\$ "
4. Wells	\$ "	\$ "
5. Pumping equipment	\$ "	\$ "
6. Treatment equipment	\$ "	\$ "
7. Storage tanks	\$ "	\$ "
8. Mains (excluding service connections)	\$ "	\$ "
9. Service connections	\$ "	\$ "
10. Meters (including spare meters)	\$ "	\$ "
11. Office furniture and equipment	\$ "	\$ "
12. Transportation equipment	\$ "	\$ "
13. Other utility property in service (describe in remarks below)	\$ "	\$ "
14. Total utility property in service (Lines 2 thru 13)	\$ "	\$ "
15. Less: acquisition adjustments (difference between original cost above and cost to Seller)	\$ "	\$ "
16. Less: Seller's accumulated depreciation	\$ "	\$ "
17. Less: Seller's accumulated tap fees and other contributions in aid of construction	\$ "	\$ "
18. Seller's net investment in utility property (Line 14 minus 15, 16, & 17)	\$ "	\$ "

Utility Property Not in Service

Balance at End of Year

Water

Sewer

19. Construction work in progress	\$	N/A	\$ See No. 22 below
20. Property held for future use	\$	" "	\$ " "
21. Other (describe in remarks below)	\$	" "	\$ " "

Remarks

- 22. See Docket No W-1118, sub 1 and the attached contracts
- 23.
- 24.
- 25.

**ANNUAL DEPRECIATION**

- 26. If annual depreciation is claimed using a composite rate for the entire system, show rate of depreciation used:  
 Water: N/A  
 Sewer: See attached sheets
- 27. If annual depreciation is claimed using individual rates for each type of equipment, show rates of depreciation used:

**OTHER FINANCIAL INFORMATION**

- 1. Please provide the following capital structure information for the Purchaser prior to the purchase of the new water and/or sewer system(s):
  - a. Capital structure as of
  - b. Capital structure balances:

	Amount	Percent Of Total Capital
Long-term debt/loans	\$	
Preferred stock (if any)	\$	
Common equity:		
Common stock	\$	
Retained earnings	\$	
Total common equity	\$	
Total capital	\$	

- 2. The purchase price of the system will be financed as follows:

- a. Long-term debt \$
- b. Short-term debt \$
- c. Common stock \$
- d. Retained earnings \$
- e. Other (please describe below on Line g) \$
- f. Total purchase price \$

g. Description of other:

3. Please provide the following for improvements/additions to be made in the first year:

a. Brief description:

b. Financing:

- (1) Long-term debt \$
- (2) Short-term debt \$
- (3) Common stock \$
- (4) Retained earnings \$
- (5) Other (please describe below on Line (7)) \$
- (6) Total improvements/additions \$

(7) Description of other:

1. Are there any major improvements/additions required in the next five years and the next ten years? Indicate the estimated cost of each improvement/addition, the year it will be made, and how it will be financed (long-term debt, short-term debt, common stock, retained earnings, and other (please explain)).  
Normal; plus see contracts.

2. Are there any major replacements required in the next five years and the next ten years? Indicate the estimated cost of each replacement, the year it will be made, and how it will be financed (long-term debt, short-term debt, common stock, retained earnings, and other (please explain)).  
Normal; plus see contracts.

3. Please fill out the attached addendum showing the projected cash flows and income statement for the first five years of operation of this system. This addendum should be for the utility system for which the subject application is being submitted, exclusively. Instructions are included on page 3 of the addendum. The following information may be provided instead of filing the addendum:
- (1) Audited financial statements for the Purchaser and/or parent company.
  - (2) Budgets, capital and operating, for the Purchaser's North Carolina utility operations for the next five years.
  - (3) The most recent fiscal year budgets, capital and operating, and the actual amounts for that year for the Purchaser's and/or parent company's North Carolina utility operations.



**EXHIBITS**

**THE FOLLOWING EXHIBITS SHALL BE ATTACHED TO THE APPLICATION:**

1. If the Purchaser is a corporation, enclose a copy of the Articles of Incorporation on file with the North Carolina Secretary of State. (Not required if previously filed with the Commission.)
2. If the Purchasers are doing business as a partnership, enclose a copy of the partnership agreement. (Not required if previously filed with the Commission.)
3. If the Purchaser is conducting business under a trade name or d/b/a, enclose a copy of the certificate filed with the register of deeds in each county where the Applicant will be conducting business as required by G.S. 68-68.
4. Enclose a copy of (1) exhibits showing that the Seller has ownership of all property necessary to operate the utility and (2) a purchase agreement reduced to writing. Any changes in the purchase agreement should be filed immediately with the Commission.
5. If the application is for a stock transfer, enclose a copy of the most recent financial statements, including a balance sheet, for the Seller.
6. Enclose a copy of contracts or agreements, including all attachments, exhibits, and appendices, between the utility and any other party (land developers, customers, etc.) regarding the proposed utility services, including contracts regarding tap fees, construction costs, easements, and rights-of-way, etc. (If none, write "none").
7. Enclose a copy of the most recent fiscal year financial statements, audited if available, for the Purchaser.
8. Enclose a copy of the most recent fiscal year financial statements, audited if available, for the parent company of the Purchaser.
9. If the information requested in Exhibits 7 and 8 is not available, enclose a copy of the most recent fiscal year financial statements or statement of net worth for the principals of the Purchaser and/or parent company.

**FILING INSTRUCTIONS**

10. Eight (8) copies of the application and exhibits shall be filed with the North Carolina Utilities Commission, 4325 Mail Service Center, Raleigh, North Carolina 27699-4325. Twenty-five (25) copies of an application to acquire a Class A or B utility company should be filed. One of these copies must have original signatures. (Applicants must also provide any copies to be returned to them.)
11. Enclose a filing fee as required by G. S. §62-300. A Class A company (annual revenues of \$1,000,000 or more) requires a \$250 filing fee. A Class B company (annual revenues between \$200,000 and \$1,000,000) requires a \$100 filing fee. A Class C company (annual revenues less than \$200,000) requires a \$25 filing fee. **MAKE CHECK PAYABLE TO THE NORTH CAROLINA UTILITIES COMMISSION.** (No filing fee required if stock transfer only.)

**SIGNATURES**

12. Application shall be signed and verified by the Applicants.

Signature

Date

Signature

Date

*[Handwritten Signature]*  
Purchaser  
*[Handwritten Signature]*  
6/22/05

Seller

13. (Typed or Printed Name)

*Neil R. Phillips*

personally appearing before me and, being first duly sworn, says that the information contained in this application and in the exhibits attached hereto are true to the best of his/her knowledge and belief.

This the 22<sup>nd</sup> day of June 2005

*Jennifer K. Stolton*  
Notary Public

3002 Silky Dogwood Trail, Apex, NC 27505  
Address

My Commission Expires: April 16, 2010  
Date

EXHIBITS

THE FOLLOWING EXHIBITS SHALL BE ATTACHED TO THE APPLICATION:

1. If the Purchaser is a corporation, enclose a copy of the Articles of Incorporation on file with the North Carolina Secretary of State. (Not required if previously filed with the Commission.)
2. If the Purchasers are doing business as a partnership, enclose a copy of the partnership agreement. (Not required if previously filed with the Commission.)
3. If the Purchaser is conducting business under a trade name or d/b/a, enclose a copy of the certificate filed with the register of deeds in each county where the Applicant will be conducting business as required by G.S. 66-68.
4. Enclose a copy of (1) exhibits showing that the Seller has ownership of all property necessary to operate the utility and (2) a purchase agreement reduced to writing. Any changes in the purchase agreement should be filed immediately with the Commission.
5. If the application is for a stock transfer, enclose a copy of the most recent financial statements, including a balance sheet, for the Seller.
6. Enclose a copy of contracts or agreements, including all attachments, exhibits, and appendices, between the utility and any other party (land developers, customers, etc.) regarding the proposed utility services, including contracts regarding tap fees, construction costs, easements, and rights-of-way, etc. (If none, write "none").
7. Enclose a copy of the most recent fiscal year financial statements, audited if available, for the Purchaser.
8. Enclose a copy of the most recent fiscal year financial statements, audited if available, for the parent company of the Purchaser.
9. If the information requested in Exhibits 7 and 8 is not available, enclose a copy of the most recent fiscal year financial statements or statement of net worth for the principals of the Purchaser and/or parent company.

FILING INSTRUCTIONS

10. Eight (8) copies of the application and exhibits shall be filed with the North Carolina Utilities Commission, 4325 Mail Service Center, Raleigh, North Carolina 27699-4325. Twenty-five (25) copies of an application to acquire a Class A or B utility company should be filed. One of these copies must have original signatures. (Applicants must also provide any copies to be returned to them.)
11. Enclose a filing fee as required by G. S. §62-300. A Class A company (annual revenues of \$1,000,000 or more) requires a \$250 filing fee. A Class B company (annual revenues between \$200,000 and \$1,000,000) requires a \$100 filing fee. A Class C company (annual revenues less than \$200,000) requires a \$25 filing fee. **MAKE CHECK PAYABLE TO THE NORTH CAROLINA UTILITIES COMMISSION.** (No filing fee required if stock transfer only.)

SIGNATURES

12. Application shall be signed and verified by the Applicants.

Signature Purchaser

Date

Signature

Date

*Dane L. Vincent* V.P.  
Seller  
6/27/05

13. (Typed or Printed Name)

*Dane L. Vincent*

personally appearing before me and, being first duly sworn, says that the information contained in this application and in the exhibits attached hereto are true to the best of his/her knowledge and belief.

This the 27<sup>th</sup> day of June, 2005.  
*Patricia M. Foutz*  
Notary Public

*P.O. Box 293 Warren, Virginia 24484*  
Address  
My Commission Expires: June 30, 2007  
Date

Dane L. Vincent

(Typed or Printed Name)

personally appearing before me and, being first duly sworn, says that the information contained in this application and in the exhibits attached hereto are true to the best of his/her knowledge and belief.

This the 27<sup>th</sup> day of June 2005.

Patricia M. Foutz  
Notary Public

P.O. Box 293 Warm Springs, Va. 24484  
Address

My Commission Expires: June 30 2009  
Date

**ASSET PURCHASE AGREEMENT  
FOR THE ACQUISITION OF  
THE WASTEWATER SYSTEM ASSETS  
OF**

~~CHATHAM WATER RECLAMATION COMPANY, LLC~~



**BY**

~~AQUA NORTH CAROLINA, INC.~~

~~Dated as of May 12, 2005~~

**ASSET PURCHASE AGREEMENT  
FOR THE ACQUISITION OF  
THE WASTEWATER SYSTEM ASSETS  
OF  
CHATHAM WATER RECLAMATION COMPANY, LLC  
BY  
AQUA NORTH CAROLINA, INC.**

**THIS ASSET PURCHASE AGREEMENT** dated May 12, 2005 between Chatham Water Reclamation Company, LLC, a North Carolina Limited Liability Company (herein called "Seller"), and Aqua North Carolina, Inc., a North Carolina corporation authorized to operate as a public utility (herein called "Buyer").

**RECITALS**

Seller and Carolina Meadows, Inc. ("Carolina") are the owners of Whippoorwill LLC ("Whippoorwill"), a North Carolina limited liability company, which owns a wastewater treatment facility which is used to provide wastewater treatment service to Carolina and Seller as part of a wastewater collection and treatment system operated by Seller to provide wastewater service to Seller's service area located in Chatham County, North Carolina, as approved by the North Carolina Utilities Commission (the "Commission"). Seller was authorized to operate the system as a public utility by the Commission in Docket No. W- 1118, Sub- 0 and Sub 1.

Buyer is a regulated public utility that furnishes water and wastewater service to the public in certain portions of North Carolina. Buyer proposes to purchase Seller's interest in Whippoorwill together with the assets used by Seller in the operation of the system as described more fully below. Buyer has entered into a similar Agreement to purchase Carolina's interest in Whippoorwill and other assets used in the operation of the treatment facility. Buyer will apply to the Commission for transfer of the franchise from Seller to Buyer.

Seller desires to sell, and Buyer desires to purchase, the Wastewater System Assets (as defined below), upon the terms and conditions set forth herein.

**NOW, THEREFORE,** in consideration of the recitals and the covenants, representations, warranties, and agreements herein contained, and intended to be legally bound hereby, the parties hereto agree as follows:

**1. Sale and Purchase of the Wastewater System Assets**

The "Wastewater System Assets" are defined as the assets, properties and rights listed on Schedule 1.1.

Subject to the terms and conditions hereinafter set forth, the Buyer shall purchase from Seller, and Seller shall sell, assign, transfer, grant, convey and deliver to Buyer, at the Closing (hereinafter defined), the Wastewater System Assets.

The Wastewater System Assets are to be sold free and clear of all mortgages, liens, pledges, security interest, charges, claims, restrictions and encumbrances of any nature whatsoever, except as described in this Agreement.

**1.1 Wastewater System Assets Further Defined**

The Wastewater System Assets shall, without limitation to the definition stated above, include the Seller's membership interest in Whippoorwill, the wastewater collection lines and lift stations located within Seller's service area and the specific assets, properties and rights set forth in Schedule 1.1.

**1.2 Other Attributes of the Wastewater System Assets**

The Wastewater System Assets to be conveyed under this Agreement shall include the following assets, properties, ~~rights~~ and appurtenances:

- (a) those parcels of land and easements, described on Schedule 1.1, together with all privileges and appurtenances thereto and all plants, buildings, structures, facilities, installations, fixtures, betterments, additions and other improvements situated thereon and together with any other easements used or useful in connection therewith in which Seller has an interest;
- (b) all machinery, equipment, and other tangible personal property, including tools, supplies and inventories associated with the wastewater system in which Seller has an interest;
- (c) all rights and obligations of Seller under any assignable written or oral contract, agreement, lease, plan, instrument, registration, license, permit, certificate or other authorization or approval of any nature, or other document, commitment, arrangement, undertaking, practice or authorization associated with the wastewater system;
- (d) all assignable rights and obligations of Seller under any easement, right-of-way, occupancy permit, and/or license associated with the wastewater system;
- (e) plans, engineering records, customer service records, including customer records and data, both in paper form and in electronic form associated with the wastewater system in the possession of Seller; and
- (f) all of Seller's information, files, records, data, plans, system maps, contracts and recorded knowledge, including property records, related to the foregoing.

1.3 Consideration

The purchase price for the Wastewater System Assets will consist of the following payments:

- (a) At Closing, a lump sum payment from Buyer to Seller of Three Hundred Seventy-three Thousand Nine Hundred Thirty-nine Dollars (\$373,939), which will represent the Commission-determined rate base pursuant to Section 3(c) of this Agreement.
- (b) Within 30 days after Closing, Buyer will pay Seller the amount due for net working capital as determined by audit and valuation methods mutually acceptable to Buyer and Seller. The net working capital is estimated to be Fifteen Thousand Five Hundred Five Dollars (\$15,505).
- (c) At Closing, Buyer will reimburse Seller's legal fees not to exceed Two Thousand Dollars (\$2,000). Any additional legal fees shall be the sole responsibility of Seller.
- (d) At Closing, Buyer will reimburse Seller for any capital expenditures made by Seller for wastewater system expansion or maintenance prior to Closing. Reimbursement will be made for the actual dollars expended based on paid invoices.

Unless otherwise agreed, the purchase price at Closing shall be paid via wire transfer of immediately available funds, to the account provided by Seller prior to the Closing.

1.4 Liabilities

With the exception of (i) the obligation to provide wastewater service to the area described in Section 7.2(b) of this Agreement, subject to approval by the Commission, after Closing, (ii) the liabilities and obligations described on Schedule 4(i), (iii) the contractual obligations described on Schedule 4(i) (as well as any contractual obligations of Seller incurred after the date of this Agreement and described in an amendment to Schedule 4(i) delivered by Seller to Buyer at Closing, provided that Seller's incurring of such additional obligations was reasonably necessary to the operation and maintenance of the Wastewater System Assets, including the expansion, modification or upgrade of the Wastewater System Assets as required by any permit or contractual agreement), (iv) liabilities arising from the use or ownership of the Wastewater System Assets after Closing and arising from activities or events that were conducted by, or resulting from the actions or negligence of, Buyer prior to the effective time of Closing, and (v) any other assumed liabilities and contractual obligations specified herein (hereinafter referred to as the "Assumed Liabilities"), all liabilities and obligations of Seller shall remain the sole responsibility of Seller. Buyer hereby undertakes, assumes and agrees, subject to the limitations contained herein, to perform, pay or discharge only the Assumed Liabilities pursuant to an assignment and assumption agreement which Buyer shall execute and deliver to Seller at the Closing ("Assignment and Assumption Agreement"), which Assignment and Assumption Agreement shall be substantially in the form of Schedule 1.4 attached hereto. Buyer shall not assume and shall not be liable for any liabilities or obligations of Seller, other than the Assumed

Liabilities, of any nature whatsoever, whether express or implied, fixed or contingent, save and except for the Assumed Liabilities. Buyer shall not be responsible for any business, occupation, withholding or similar tax, or for any income, sales, use, value-added or similar taxes related to any period, or transaction occurring during any period, before the Closing Date.

The assumption of the Assumed Liabilities by Buyer hereunder shall not enlarge any rights of third parties under contracts or arrangements with Buyer or Seller or any of their respective affiliates.

#### 1.5 Seller's Remedies with Respect to the Assumed Liabilities

For the first two years following the Closing (as defined below) Buyer shall provide a written report to Seller by the twentieth day of each calendar quarter describing Buyer's actions in the previous quarter to perform the Assumed Liabilities. The parties acknowledge that Seller would be irreparably harmed by Buyer's failure to perform the Assumed Liabilities and agree that, in addition to all other remedies available to Seller at law and equity, Seller shall be entitled to specific performance of Buyer's obligation to perform the Assumed Liabilities.

## 2. Closing

Closing hereunder ("the Closing") shall take place at the offices of the Attorney for Buyer at 219 Fayetteville Street, Suite 1000, commencing at 10:00 a.m. local time, on or before the fifteenth calendar day after the transfer of the Wastewater System Assets is approved by the Commission and the Division of Water Quality of the North Carolina Department of Environment and Natural Resources ("DWQ") (as required), or at such other place or on such later date as mutually agreed to by the parties. The Closing will be done simultaneously with the Closing with Carolina, or immediately prior to that Closing. The date of the Closing is referred to herein as the "Closing Date". The effective time of the Closing shall be 12:01 a.m. on the day following the Closing Date.

#### 2.1 Items to Be Delivered at Closing

At or prior to Closing and subject to the terms and conditions herein contained:

- (a) Seller shall deliver to Buyer the following:
- (i) a Bill of Sale and other instruments and documents of conveyance and transfer, all in form reasonably satisfactory to Seller and Buyer and their respective counsel, as shall be necessary and effective to transfer and assign to, and vest in, Buyer good and marketable title to the Wastewater System Assets;
  - (ii) a Special Warranty Deed for any fee parcels to be conveyed to Buyer as part of the Wastewater System Assets. Seller will secure title insurance on such real estate with the cost of the policy being paid by Buyer;



- (iii) a Grant or Assignment of Easements, in a form reasonably satisfactory to Seller and Buyer and their respective counsel, to convey to Buyer all easement rights associated with the Wastewater System Assets;
- (iv) copies of, or the originals of, all of the agreements, contracts, commitments, leases, plans, bids, quotations, proposals, instruments, certificates, permits and other instruments belonging to Seller that are part of or related to the Wastewater System Assets;
- (v) applications for the transfer of permits, if any, as prepared by the Buyer and reasonably acceptable to the Seller, on standard forms used by applicable regulatory agencies;
- (vi) the Assignment and Assumption Agreement; and
- (vii) such other documents and instruments as may be necessary or reasonably required by Buyer to effectuate the transaction evidenced in this agreement, including such documents as are necessary to convey Seller's interest in Whippoorwill to Buyer.

(b) Buyer shall deliver to Seller the following:

- (i) the purchase price due at Closing pursuant to Section 1.3 of this Agreement, subject to the terms of Section 2.4;
- (ii) articles of incorporation and by-laws of the Buyer, and a good standing certificate of Buyer obtained within thirty (30) days of Closing;
- (iii) the Assignment and Assumption Agreement;
- (iv) copies of applications for the minor modification of any permits necessary for the operation of the Wastewater System Assets, on standard forms used by applicable regulatory agencies, substituting Buyer for Seller as the permittee, which applications shall be submitted by Buyer to the applicable regulatory agency within five (5) days following Closing; and
- (v) such other documents and instruments as may be necessary or reasonably required by Seller to effectuate the transaction evidenced in this agreement.

Simultaneously with such deliveries, all steps shall be taken as may be required to put Buyer in actual possession and operating control of the Wastewater System Assets, to include transfer of all permits, if any, at Closing.

2.2 Proration of Property and Franchise Taxes

Ad valorem taxes on real and personal property conveyed by Seller to Buyer shall be prorated on a calendar year basis through the Closing Date. Any existing franchise taxes previously paid by Seller which are assumed by Buyer shall also be prorated based on the period for which such tax is valid through the Closing Date.

2.3 Transfer of Utilities

The parties will cooperate to transfer utility services used in connection with the Wastewater System Assets to Buyer as of the Closing Date. In the event service cannot be transferred in the name of Buyer as of the Closing Date, the bills shall be prorated as of the Closing Date.

2.4 Taxes and Clearance Certificate

Prior to Closing, Seller shall notify the North Carolina Department of Revenue of the sale of the Wastewater System Assets and, at Closing, provide Buyer with a tax clearance certificate from said Department. If Seller is unable to deliver the foregoing clearance certificate to Buyer at Closing, then Seller, at Closing, shall deliver to Buyer an estimate prepared by Seller's independent public accountant of all taxes, contributions, interest and penalties owed by Seller to the State of North Carolina and its constituent agencies for business conducted and transactions concluded up to and through Closing, which estimate shall be certified by the preparer as accurate to the best of the preparer's knowledge after due inquiry. Buyer shall withhold from the Purchase Price a sum equal to one and one-half (1-1/2) times the preparer's estimate (the "Tax Clearance Fund"), which Buyer shall set aside in a separate account, to be released by Buyer to Seller upon Seller's delivery of the clearance certificate to Buyer. Buyer may close the Tax Clearance Fund and keep the withheld monies for its own in the event Seller does not deliver the clearance certificate within fifteen (15) months from the date of Closing.

2.5 Remedy.

Seller acknowledges that the Wastewater System Assets are unique and not otherwise available and agrees that, in addition to any other remedy available to Buyer, Buyer may invoke any equitable remedy to enforce performance hereunder, including, without limitation, the remedy of specific performance.

2.6 Further Assurances

Each party agrees to execute, acknowledge and deliver to the other party from time to time such other instruments of sale, conveyance, assignment and transfer and will take such other actions and execute and deliver such other documents, certifications and further assurances as such party may reasonably require to vest in Buyer all of Seller's right, title and interest in and to the Wastewater System Assets and the Assumed Liabilities.

**3. Conditions Precedent to Closing**

Buyer's obligations to close the transaction described in this Agreement shall be contingent upon the following:

- (a) Seller shall provide a certificate at Closing certifying that (i) the representations of Seller herein are true and accurate as of Closing Date and (ii) that Seller has performed and satisfied all covenants, agreements and conditions that were required to be performed by it under the Agreement on or before the Closing Date;
- (b) Buyer shall be satisfied, within ten (10) days of the execution of this Agreement, with the results of its due diligence inspection of the Wastewater System Assets, including any environmental site assessment that Buyer may elect to perform. In the event Buyer is not satisfied with the results of its due diligence within said 10-day period, Buyer shall notify Seller in writing on or before the end of such period, whereupon this Agreement shall automatically terminate, be rendered null and void and of no further force and effect. Failure of Buyer to notify Seller in writing as aforesaid shall be deemed to be an approval by Buyer of its due diligence and satisfaction of this condition.
- (c) Seller and Buyer and Carolina shall have received all required approvals from regulatory agencies, including the required approvals of the Commission and DWQ, to enable Buyer to secure a Certificate of Convenience and Necessity which will allow it to assume the ownership and operation of the Wastewater System Assets and to provide wastewater service to Carolina at the rates specified in its Agreement with Buyer and to Seller's franchised area at the rates presently authorized for Seller, with the rate base authorized by the Commission being equal to the total purchase price paid by Buyer to Seller and Carolina.
- (d) On the Closing Date, no proceeding shall be pending or threatened before any court or governmental agency in which it is sought to restrain or prohibit or to obtain damages or other relief in connection with this Agreement or in the consummation of the transactions contemplated hereby, and no investigation that might eventuate in any such suit, action or proceeding shall be pending or threatened.
- (e) There shall be no material adverse change or damage to the condition of the Wastewater System Assets since the expiration of the 10-day due diligence period described in Section 3(b).
- (f) Buyer shall be satisfied in its reasonable discretion with the results of the title report regarding the real property to be acquired hereunder.
- (g) Seller shall have been able, through the exercise of its best efforts in good faith, to acquire ownership of the wastewater collection lines and lift stations located within the portion of Seller's service area known as "Governors Forest."

**4. Representations and Warranties of Seller**

In making this instrument, Seller makes the following representations and warranties:

- (a) Seller owns the Wastewater System Assets and has good and marketable title to the Wastewater System Assets, free and clear of all liens and encumbrances, except as described on Schedule 4(a).
- (b) Except for the approvals of the Commission and the DWQ and as otherwise provided herein, neither the execution and delivery of the Agreement by Seller, nor consummation and performance of the transactions contemplated thereby: (i) requires the approval or consent of any federal, state, local or other governmental body or agency that has not been obtained; (ii) results in the violation of any law, ordinance or regulation to which Seller is subject; or (iii) results in a violation of any judgment, order, writ, injunction or decree of any court or of any governmental official, agency or instrumentality which is applicable to Seller.
- (c) Except for the consents of third parties to assignment to Buyer of contracts that are included in the Assumed Liabilities to the extent such consents are required by the terms of the respective contracts, the execution and delivery of the Agreement and the performance of the transactions contemplated thereby does not violate, conflict with or result in the breach (with or without the giving of notice or lapse of time or both) of any term, condition or provision of any instrument, contract, lease, agreement, permit, certificate or other document to which Seller is a party, or is otherwise bound or affected, or by which any of the Wastewater System Assets may be bound or affected.
- (d) Except for the approvals and consents described in this Agreement, Seller has full power and authority to sell, convey, assign, transfer and deliver the Wastewater System Assets to Buyer as provided in the Agreement.
- (e) To Seller's knowledge, there are no pending or threatened claims regarding the Wastewater System Assets or Seller's ability to transfer the Wastewater System Assets.
- (f) Seller does not know of any events or conditions related to the Wastewater System Assets that would give rise to any liability under any of the environmental laws.
- (g) Except as described on Schedule 4(g), Seller does not know of any material violation of, or material lack of compliance with, any law, ordinance or government rule or regulation to which the Wastewater System Assets are subject.
- (h) Seller does not know of any existing or threatened condition or development which would have a material adverse effect on the Wastewater System Assets.
- (i) Except as disclosed on Schedule 4(i), there are no liabilities or obligations of Seller, either accrued, absolute, contingent or otherwise, relating to the Wastewater System Assets. For purposes of this Agreement, the term liabilities shall include,

without limitation, any direct or indirect indebtedness, guaranty, endorsement, claim, loss, damage, deficiency, cost, expense, obligation or responsibility, either accrued, absolute, contingent or otherwise.

- (j) Except as disclosed on Schedule 4(j), the Seller is not party to any contract for the purchase of, or payment for supplies, equipment or for services related to the Wastewater System Assets, except such contracts that shall not survive Closing or shall remain Seller's sole responsibility.
- (k) Seller is not a party to any contract, commitment or arrangement, which will survive Closing, with any labor union or other representative of employees with respect to the Wastewater System Assets.
- (l) To Seller's knowledge, all the tangible property included in the Wastewater System Assets is in good operating condition, except as disclosed on Schedule 4(l).
- (m) There are no liens, encumbrances or security interests against the Wastewater System Assets that will not be paid off by Seller at Closing, except as described on Schedule 4(a).

**5. Indemnification**

Seller and Buyer each hereby acknowledges and understands that, following the effective time of Closing, Buyer shall be responsible for the provision of wastewater service to Carolina and to the franchise served by Seller. Other than the future provision of wastewater service and the other Assumed Liabilities, Buyer does not and shall not assume or incur liability or obligation of Seller of any nature whatsoever, express or implied, fixed or contingent. Seller shall indemnify and hold harmless Buyer and its officers, employees and agents from and against all liabilities and obligations of Seller, and from any and all claims, actions, judgments and fines arising from any misrepresentation or breach of warranty by Seller under this Agreement or related to the Wastewater System Assets to the extent such claims, actions, etc., involve activities or events that occurred or originated prior to the effective time of Closing, except for claims, actions, etc., that arise from or involve activities or events that were conducted by, or result from the actions or negligence of, Buyer prior to the effective time of Closing. Conversely, Buyer shall indemnify and hold harmless Seller and its members, managers, officers, employees and agents from and against all liabilities and obligations of Buyer, and from and against any and all claims, actions, judgments and fines arising from any misrepresentation or breach of warranty by Buyer under this Agreement or related to the Wastewater System Assets to the extent such claims, actions, etc., involve activities or events that occurred or originated after the effective time of Closing or involve activities or events that were conducted by, or result from the actions or negligence of, Buyer prior to the effective time of Closing. The indemnification provisions of this Section 5 shall survive the Closing for a period of two (2) years.

**6. Covenants, Representations and Agreements of Buyer and Conditions Precedent to Seller's Obligations**

6.1 In making this instrument, Buyer makes the following representations and warranties:

- (a) Buyer is a North Carolina corporation duly organized and validly existing and is in good standing under the laws of the State of North Carolina.
- (b) Buyer has the requisite power, authority, permits and regulatory authorizations to own and operate the Wastewater System Assets and to carry on the wastewater system business after the Closing Date.
- (c) Except for the approvals of the Commission and the DWQ and as otherwise provided herein, neither the execution and delivery of the Agreement by Buyer, nor consummation and performance of the transactions contemplated thereby (i) requires the approval or consent of any federal, state, local or other governmental body or agency that has not been obtained; (ii) results in the violation of any law, ordinance or regulation to which Buyer is subject; or (iii) results in a violation of any judgment, order, writ, injunction or decree of any court or of any governmental official, agency or instrumentality which is applicable to Buyer.
- (d) Except for the consents of third parties to assignment to Buyer of contracts that are included in the Assumed Liabilities to the extent such consents are required by the terms of the respective contracts, the execution and delivery of the Agreement and the performance of the transactions contemplated thereby does not violate, conflict with or result in the breach (with or without the giving of notice or lapse of time or both) of any term, condition or provision of any instrument, contract, lease, agreement, permit, certificate or other document to which the Buyer is a party, or is otherwise bound or affected, or by which any of the Wastewater System Assets may be bound or affected.
- (e) Buyer, upon the receipt of regulatory approvals, has the full power and authority to acquire the Wastewater System Assets as provided in the Agreement.
- (f) To Buyer's knowledge, there are no pending or threatened claims regarding the Wastewater System Assets or Buyer's ability to purchase the Wastewater System Assets.
- (g) Buyer will reimburse Seller on a dollar for dollar basis all costs of future extensions or expansions as provided for in Section 1.3(d).
- (h) Buyer will pay for and construct a replacement or upgraded plant with a treatment capacity of 350,000 gallons per day in accordance with plans and specifications and a construction schedule to be approved by Seller and Carolina prior to Closing; provided, however, that the parties agree that Buyer will begin construction of a replacement or upgraded plant with a treatment capacity of 350,000 gallons per day not later than 45 days after the Closing Date, unless the construction schedule approved by Seller and Carolina provides otherwise.

6.2 Seller's obligations to close the transaction described in this Agreement shall be contingent upon the following:

- (a) Buyer shall provide a certificate at Closing certifying that (i) the representations of Buyer herein are true and accurate as of Closing Date and (ii) Buyer has performed and satisfied all covenants, agreements and conditions that were required to be performed by it under the Agreement on or before the Closing Date.
- (b) Seller and Buyer shall have received all required approvals from regulatory agencies, including the required approvals of the Commission and DWQ, to enable Buyer to assume the ownership and operation of the Wastewater System Assets and to provide wastewater service to the public in the Seller's existing franchise area approved by the Commission and in up to three single-family residential units on the property currently owned by BB Endeavors, LLC that adjoins the Governors Village subdivision in Chatham County, North Carolina and is located south and west of the intersection of North Carolina state roads 1726 and 1727, at the rates currently authorized for Seller.
- (c) On the Closing Date, no proceeding shall be pending or threatened before any court or governmental agency in which it is sought to restrain or prohibit or to obtain damages or other relief in connection with this Agreement or in the consummation of the transactions contemplated hereby, and no investigation that might eventuate in any such suit, action or proceeding shall be pending or threatened.
- (d) Seller shall have been able, through the exercise of its best efforts in good faith, to acquire ownership of the wastewater collection lines and lift stations located within the portion of Seller's service area known as "Governors Forest."

## 7. Covenants, Representations and Agreements

### 7.1 Covenants, Representations and Agreements of Seller

Without limiting the other promises expressed or implied on the part of Seller hereunder, Seller specifically covenants and agrees, as part of the overall transaction set forth in the Agreement, that all future extensions of the wastewater system prior to Closing, if any, shall be done by Seller pursuant to the specifications and requirements used by Seller for its previous installations. Seller shall conduct this work under the supervision and inspection rights of Buyer. Seller shall bear the cost of these extensions and then convey those assets to Buyer. Buyer will reimburse Seller the actual cost as provided in Section 1.3(d).

### 7.2 Covenants, Representations and Agreements of Buyer

- (a) Without limiting the other promises expressed or implied on the part of Buyer hereunder, Buyer specifically covenants and agrees that in the event any requirement arises under the terms of this Agreement or otherwise for Seller to acquire an easement for the use of Buyer, Buyer shall permit Seller, at Seller's sole expense, to condemn such required easement in the name of Buyer consistent with applicable North Carolina law.

- (b) After conveyance of the Wastewater System Assets, Buyer shall provide wastewater service to the residents and other users served or to be served by the Wastewater System Assets, in accordance with the terms of the related permits as the same may be amended from time to time, in Seller's existing service area approved by the Commission, in up to three single-family residential units on the property currently owned by BB Endeavors, LLC that adjoins the Governors Village subdivision in Chatham County, North Carolina ("Governors Village") and is located south and west of the intersection of North Carolina state roads 1726 and 1727 and in all portions of Governors Village, whether currently developed or to be developed in the future, whether residential, commercial, office, institutional or other, that are part of Governors Village pursuant to the terms and conditions of the conditional use permit for the Governors Club planned unit development approved by Chatham County, North Carolina, as the same may be amended from time to time, including but not limited to the areas of the Governors Village subdivision known as "Governors Village," "Governors Park," "Governors Forest," "Governors Lake," and the Governors Village townhomes, apartments and commercial areas.
- (c) At all times during which Buyer operates the Wastewater System Assets, Buyer shall comply with all applicable laws and regulations, including but not limited to environmental laws.
- (d) Buyer shall not discontinue provision of wastewater service to the residents and other users served by the Wastewater System Assets until the transfer of the franchise approved by the Commission has become effective or abandonment has been authorized pursuant to G.S. 62-118.

8. General Provisions

8.1 Notices

Any notice, waiver or other communication which is required or permitted hereunder shall be in writing and shall be deemed given only if delivered personally or sent by overnight delivery service or registered or certified mail, postage prepaid, return receipt requested, as follows:

If to Buyer:

Aqua North Carolina, Inc.  
 202 MacKenan Court  
 Cary, North Carolina 27511  
 Attention: Neil R. Phillips, President.

with a required copy to:

Laurence A. Cobb  
 Sanford Holshouser LLP  
 Post Office Box 2447  
 Raleigh, North Carolina 27602



If to Seller:

Chatham Water Reclamation Company, LLC  
1807 Douglas Drive, 27330 (Courier Deliveries)  
Post Office Box 3923 27331 (U.S. Mail)  
Sanford, North Carolina

Attention: Kirk J. Bradley, President

with a required copy to:

Dane L. Vincent  
Homestead Preserve  
5 Main Street (Courier Deliveries)  
Post Office Box X (U.S. Mail)  
Hot Springs, Virginia 24445

and a required copy to:

Patrick E. Bradshaw  
Bradshaw & Robinson, LLP  
128 Hillsboro Street (Courier Deliveries)  
Post Office Box 607 (U.S. Mail)  
Pittsboro, North Carolina 27312

or to such other address as the addressee may have specified in a written notice duly given to the sender as provided herein. Such notice, request, demand, waiver, consent, approval or other communication will be deemed to have been given as of the date so delivered, or mailed.

8.2 Governing Law

This instrument shall be governed by and enforced in accordance with the laws of the State of North Carolina, without regard to its conflicts of laws provisions.

8.3 Assignment

Either party hereto shall have the right to assign their interest herein to another party only with the prior written consent of the other party, provided such assignment shall not relieve any party hereto of liability for its obligations hereunder.

8.4 Contents of Agreement: Parties in Interest: etc.

This Agreement and the other documents referenced herein set forth the entire understanding of the parties hereto with respect to the transactions contemplated hereby. This Agreement shall not be amended or modified except by written instrument duly executed by each of the parties hereto. Any and all previous agreements and understandings between or among any or all of the parties regarding the subject matter hereof, whether written or oral, are superseded by this Agreement.

8.5 Binding Effect

All of the terms and provisions of this Agreement shall be binding upon, inure to the benefit of and be enforceable by the legal representatives, successors and assigns of Seller or Buyer.

8.6 Schedules

All Schedules referred to herein are intended to be and hereby are specifically made a part of this Agreement.

8.7 Severability

Any provision of this Agreement that is invalid or unenforceable in any jurisdiction or under any circumstance shall be ineffective to the extent of such invalidity or unenforceability without invalidating or rendering unenforceable the remaining provisions hereof, and any such invalidity or unenforceability in any jurisdiction or under any circumstance shall not invalidate or render unenforceable such provision in any other jurisdiction or under any other circumstance, unless, in either event, the involved or unenforceable provision causes this Agreement to fail of its essential purpose.

8.8 Counterparts

This Agreement may be executed in any number of counterparts and any signatory hereto may execute any such counterparts each of which when executed and delivered shall be deemed to be an original and all of which counterparts taken together shall constitute but one and the same instrument. This Agreement shall become binding when one or more counterparts taken together shall have been executed and delivered by all signatories. It shall not be necessary in making proof of this Agreement or any counterpart hereof to produce or account for any of the other counterparts.

9. Regulatory Approval

Within ten (10) business days following the execution of this Agreement, Buyer will commence all necessary actions and file all necessary documents, applications and/or instruments at the Commission, the DWQ (as required) and such other regulatory agencies as may be required to secure regulatory approvals required to complete this transaction and diligently pursue such approval until received. Seller agrees to cooperate with Buyer in connection with such approvals, including executing any documents or instruments as may be required or producing any documents requested; however, Seller shall not be obligated to pay any fees, costs or expenses in connection with the approval processes.

10. Disclaimer

Except as provided in Section 4 hereof:

**THE WASTEWATER SYSTEM ASSETS SHALL BE CONVEYED AND TRANSFERRED TO BUYER "AS-IS, WHERE IS AND WITH ALL PHYSICAL FAULTS", and**

**THE SELLER DOES NOT WARRANT OR MAKE ANY REPRESENTATION, EXPRESS OR IMPLIED, AS TO THE PHYSICAL FITNESS FOR A PARTICULAR PURPOSE, MERCHANTABILITY, DESIGN, QUANTITY, QUALITY, LAYOUT,**

**FOOTAGE, PHYSICAL CONDITION, OPERATION, OR ANY OTHER MATTER AFFECTING THE PHYSICAL NATURE OF THE ASSETS.**

**THE SELLER AFTER CLOSING SHALL BE UNDER NO OBLIGATION WHATSOEVER TO UNDERTAKE ANY REPAIRS, ALTERATIONS, EXPANSIONS, EXTENSIONS OR OTHER WORK OF ANY KIND WITH RESPECT TO ANY PORTION OF THE WASTEWATER SYSTEM ASSETS.**

[Signatures on following page.]



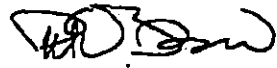
IN WITNESS WHEREOF, intending to be legally bound, the parties hereto have duly executed this Agreement on the date first above written.

**CHATHAM WATER RECLAMATION COMPANY, LLC**

By: **Governors Club Limited Partnership, Manager**

By: **Governors Club Development Corporation,  
General Partner**

Attest:

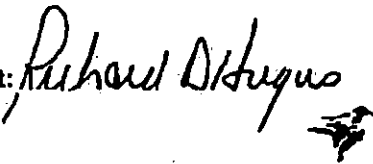


By:

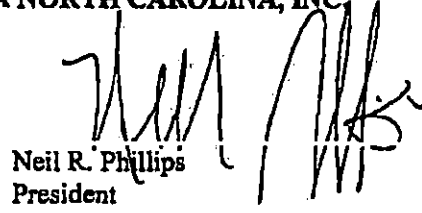
  
Kirk J. Bradley  
President

**AQUA NORTH CAROLINA, INC.**

Attest:



By:

  
Neil R. Phillips  
President

**Schedule 1.1**  
**Detailed List of Wastewater System Assets**  
**Chatham Water Reclamation Company**  
**Fixed Asset Detail**  
**As of 03/31/05**

Asset	Property Description	Date In Service	Book Cost	Book Method	Book Period
366	2002 WLF Cap. Engineering	12/31/2002	8,464.00	Memo	20
371	Cap. Engineering	7/31/2003	2,112.00	Memo	25
372	2003 WLF Cap. Engineering	11/1/2003	3,816.00	Memo	25
373	2003 WLF Cap. Engineering	12/31/2003	1,944.00	Memo	25
374	2003 WLF Cap. Engineering	12/31/2003	1,496.00	Memo	25
384	2004 WLF Cap. Engineering	1/31/2004	1,544.00	Memo	25
387	2004 WLF Cap. Engineering	4/30/2004	720.00	Memo	25
389	2004 WLF Cap. Engineering	6/30/2004	560.00	Memo	25
390	2004 WLF Cap. Engineering	7/31/2004	280.00	Memo	25
392	2003 CEGroup Cap Engineering	9/1/2003	1,170.00	Memo	25
396	2004 WLF Cap. Engineering	9/2/2004	216.00	Memo	25
<b>Carolina Meadows Plant Expansion</b>			<b>22,322.00</b>		
<b>Group: Equipment</b>					
153	Various Sewer Equipment	11/1/1999	1,934.00	S/L	7
157	LP Gas Generator	11/1/1999	13,070.00	S/L	7
354	Lift Station GV	11/1/1999	232.50	S/L	7
363	Lift Station Fence	2/28/2001	1,650.00	S/L	7
365	Auto Dialer	2/28/2002	651.65	S/L	7
375	Flow Meter	4/30/2003	3,530.00	S/L	7
376	Flow Meter	8/31/2003	2,233.00	S/L	7
377	Flow Meter	7/31/2003	916.00	S/L	7
378	Pump Replacement	1/31/2003	2,459.00	S/L	7
379	Pump Replacement	2/27/2003	2,279.00	S/L	7
380	Overload Relay	9/8/2003	443.00	S/L	7
381	Lift Station Replacements	7/25/2003	737.00	S/L	7
383	Pump Replacement	12/31/2003	3,960.80	S/L	7
385	Drainage	2/29/2004	1,165.25	S/L	7
386	Street Sign Posts and Install	3/31/2004	5,131.32	S/L	7
393	Manhole Rehabilitation	10/4/2004	9,100.00	S/L	7
394	Pump Station Repairs	10/4/2004	2,989.00	S/L	7
395	Inflow Dishes System-wide supply and installation	10/4/2004	5,310.00	S/L	7
<b>Equipment</b>			<b>57,771.52</b>		
<b>Group: Intangibles</b>					
355	Organization Cost 25 Year (75%)	11/1/1999	33,000.00	S/L	25
356	Organizational Cost 3 Year (25%)	11/1/1999	11,000.00	S/L	3
359	Organization Costs	1/1/2000	1,899.70	S/L	3
360	Bond Renewal	6/1/1999	1,500.00	S/L	1
364	LOC renewal	4/30/2001	1,500.00	S/L	1
388	Development Feasibility Cost	4/30/2004	2,702.40	S/L	3
391	LOC renewal	7/31/2004	4,000.00	S/L	1
<b>Intangibles</b>			<b>55,602.10</b>		
<b>Group: Plant In Service</b>					
154	Sewer Equipment - Job 3000	11/1/1999	113,766.00	S/L	25
155	Sewer Equipment - Job 3100	11/1/1999	415,316.00	S/L	25
325	Sewer Equipment	11/1/1999	708,452.00	S/L	25
361	aud-4 add'l	12/31/2000	6,440.00	S/L	25
362	Plant prevent maint	12/31/2001	7,272.72	S/L	25
367	AIA #11 PH 3&4 sewer	12/31/2000	10,000.00	S/L	25
368	AIA #12 PH 3&4 sewer	12/31/2000	25,000.00	S/L	25
369	AIA #13 PH 3&4 sewer	5/1/2001	22,798.00	S/L	25
370	Plant Addition	11/1/1999	89,162.00	S/L	25
382	Plant Vault	9/30/2003	1,255.00	S/L	25
<b>Plant In Service</b>			<b>1,397,459.72</b>		
<b>TOTAL</b>			<b>1,533,155.34</b>		

Schedule 1.4

ASSIGNMENT AND ASSUMPTION AGREEMENT

THIS ASSIGNMENT AND ASSUMPTION AGREEMENT ("Agreement") is made and entered into as of the        day of       , 2005 by and between Chatham Water Reclamation Company, LLC, a North Carolina limited liability company, ("Assignor"), and Aqua North Carolina, Inc., a North Carolina corporation ("Assignee"). Capitalized terms used but not otherwise defined herein have the respective meanings attributed thereto in the Asset Purchase Agreement described below.

STATEMENT OF PURPOSE:

- A. Assignor and Assignee entered into an Asset Purchase Agreement dated as of       , 2005 ("Asset Purchase Agreement"), for the sale of the Wastewater System Assets (as defined in the Asset Purchase Agreement) of Assignor, which includes the transfer and assignment by Assignor of Assumed Liabilities (as defined in the Asset Purchase Agreement), pursuant to Section 1.4 of the Asset Purchase Agreement.
- B. In accordance with and pursuant to Section 1.4 of the Asset Purchase Agreement, Assignor and Assignee enter into this Agreement.

NOW THEREFORE, in consideration of the foregoing promises, the consideration set forth in the Asset Purchase Agreement, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

1. Assignment. Assignor assigns and transfers to Assignee all of Assignor's right, title and interest in and to, and all of Assignor's duties and obligations under, the liabilities and obligations, contractual obligations and assumed liabilities described on Exhibit A attached hereto and incorporated herein by reference.

Notwithstanding the foregoing, no contract shall be deemed to be assigned to Assignee to the extent that such assignment is prohibited by law or by a valid and enforceable prohibition to such an assignment contained in such contract until the necessary waiver or consent (whether express or by acquiescence) to such assignment has been obtained or such provision has been rendered ineffective or unenforceable by law, action of the parties or otherwise, whether before or after the Closing Date. Assignor agrees to use its reasonable best efforts, both before and after the Closing Date: (i) to obtain all necessary waivers or consents to allow valid assignment of the contracts to Assignee; (ii) to obtain all necessary consents to terminate the contracts for which waivers or consents to such assignment cannot, after use of Assignor's reasonable best efforts, be obtained; and (iii) to subcontract to Assignee, with regard to the contracts for which waivers or consents to such assignment or termination cannot, after use of Assignor's reasonable best efforts, be obtained, all of Assignor's rights and obligations

under the contract to the extent that such subcontracting is not prohibited by law or by a valid and enforceable prohibition to such subcontracting contained in such contracts. In any event, however, Assignor shall at the request and the expense and under the direction of Assignee, in the name of Assignor or otherwise, take such action as shall in the reasonable opinion of Assignee be necessary or proper (a) in order that the rights and obligations of Assignor under such contracts are preserved for the benefit of Assignee and (b) to facilitate the collection of monies due and payable and to become due and payable to Assignor in respect of such contracts, and Assignor shall hold all such monies in trust for the benefit of and shall promptly pay such amounts to Assignee, less all reasonable charges properly allocable thereto incurred by Assignor and approved by Assignee, which approval shall not be unreasonably withheld, including but not limited to reasonable marketing, advertising, administrative, transportation and other expenses associated with the performance of the contracts.

2. Assumption. Assignee hereby agrees (i) to succeed to and to assume and accept the assignment of the liabilities and obligations, contractual obligations and assumed liabilities described on Exhibit A, together with all of the Assignor's rights, title and interest thereunder, and (ii) to faithfully, timely and fully pay or perform, or cause to be paid or performed, and otherwise to satisfy and discharge, or cause to be satisfied and discharged, all of the Assignor's duties and obligations under the liabilities and obligations, contractual obligations and assumed liabilities that arise or become due or performable after the Closing Date.

3. Indemnification. Assignee does hereby agree to indemnify, defend and hold harmless Assignor at all times from and after the date hereof from and against any and all claims or damages (including expenses and reasonable attorneys' fees) incurred or suffered by the Assignor resulting from any failure on the part of Assignee after the date hereof to discharge or perform those duties and obligations under the liabilities and obligations, contractual obligations and assumed liabilities.

4. Asset Purchase Agreement. The parties execute this Assignment pursuant to and in furtherance of the terms and provisions of the Asset Purchase Agreement. It does not replace, substitute for, expand or extinguish any obligation or provision of the Asset Purchase Agreement.

5. Entire Agreement. This Agreement constitutes the complete understanding of the parties with respect to the subject matter set forth herein. This Agreement may not be amended, altered or modified unless in writing and signed by all parties hereto. This Agreement shall supersede any prior understanding or agreement to the contrary, written or oral; however, in the event of conflict with terms in the Asset Purchase Agreement, the terms of the Asset Purchase Agreement shall control.

6. Severability. The unenforceability or invalidity of any provision of this Agreement shall not affect the validity or enforceability of the remaining provisions hereof.

7. Assignability. Neither this Agreement nor any right, remedy, obligation or liability arising hereunder or by reason hereof shall be assignable by either party without the prior written consent of the other party.

8. Waiver. Amendment. Neither this Agreement nor any provisions hereof shall be modified, changed, discharged or terminated except by an instrument in writing, signed by the party against whom any waiver, change, discharge or termination is sought.

9. Binding Effect. The provisions of this Agreement shall be binding upon and accrue to the benefit of the parties hereto and their respective heirs, legal representatives, successors and assigns.

10. Governing Law. The provisions of this Agreement shall be construed in accordance with the laws of North Carolina, without regard to principals governing conflict of laws.

11. Submission to Jurisdiction. Each of the parties hereto hereby consents to personal jurisdiction and (except as otherwise required by statute or applicable law) exclusive venue for all actions and proceedings relating to this Agreement or the transactions contemplated hereby in the Superior Court Division of the North Carolina General Court of Justice in Chatham, Lee and Wake Counties, North Carolina, and in the United States District Court for the Eastern District and the Middle District of North Carolina.

[Signatures on following page.]



IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date and year first above set forth.

**ASSIGNOR:**

**CHATHAM WATER RECLAMATION  
COMPANY, LLC**

**By: Governors Club Limited Partnership, Manager  
By: Governors Club Development Corporation,  
General Partner**

**By: Kirk J. Bradley  
President**

**ASSIGNEE:**

**AQUA NORTH CAROLINA, INC.**

**By: Neil R. Phillips  
President**

**Schedule 4(a)**

***Liens and Encumbrances***

None known.



**Schedule 4(g)****Violations**

Seller does not know of any material violation of, or material lack of compliance with, any law, ordinance or government rule or regulation to which the Wastewater System Assets are subject; however, it is possible that such violations or lack of compliance exist with regard to the wastewater treatment facility that is owned by Whippoorwill that are known to Carolina as the operator of the wastewater treatment facility and manager of Whippoorwill that are now known to Seller.



Schedule 4(i)

Liabilities and Obligations

1. Agreement to provide wastewater collection and treatment services to Charles E. Harris, Sr., et al., pursuant to section 6(b) of an Offer to Purchase and Contract between Governors Club Limited Partnership, as buyer, and Charles E. Harris, Sr., et al., as sellers, dated August 5, 1996.

2. Unwritten agreement with BB Endeavors, LLC to provide wastewater collection and treatment services to up to three single-family residential units on the property currently owned by BB Endeavors, LLC that adjoins the Governors Village subdivision in Chatham County, North Carolina and is located south and west of the intersection of North Carolina state roads 1726 and 1727.

3. ~~Actual and implied obligations to owners of property and any federal, state, local or other governmental body or agency to provide wastewater collection and treatment services to property located in all portions of the Governors Village subdivision in Chatham County, North Carolina, whether currently developed or to be developed in the future, whether residential, commercial, office, institutional or other, that are part of Governors Village pursuant to the terms and conditions of the conditional use permit for the Governors Club planned unit development approved by Chatham County, North Carolina, as the same may be amended from time to time, including but not limited to the areas of the Governors Village subdivision known as "Governors Village," "Governors Park," "Governors Forest," "Governors Lake," and the Governors Village townhomes, apartments and commercial areas.~~

4. Obligations to post any bond, letter or credit or other obligation or security posted by the owner of the Wastewater System Assets with the Commission or Chatham County in connection with the operation or construction of the Wastewater System Assets.

5. All accounts payable of the Seller outstanding and unpaid as of the effective time of the Closing that were incurred by the Seller in the ordinary course of business related to the ownership and operation of the Wastewater System Assets, which will be included in the calculation of working capital as described in Section 1.3(b) of this Agreement.

6. All accounts payable of the Seller outstanding and unpaid as of the effective time of the Closing that were incurred by the Seller in connection with wastewater system expansion as described in Section 1.3(d) of this Agreement.

**Schedule 4(i)**

*Contractual Obligations*

None.



**Schedule 4(l)**

*Condition of Assets*

None known.



**ASSETS PURCHASE AGREEMENT  
FOR THE ACQUISITION OF  
THE WASTEWATER SYSTEM ASSETS  
OF**

**CAROLINA MEADOWS, INC.**

**BY**

**AQUA NORTH CAROLINA, INC.**

**Dated as of <sup>June</sup> ~~May~~ 2, 2005**

**ASSETS PURCHASE AGREEMENT  
FOR THE ACQUISITION OF  
THE WASTEWATER SYSTEM ASSETS  
OF  
CAROLINA MEADOWS, INC.  
BY  
AQUA NORTH CAROLINA, INC.**

**THIS ASSETS PURCHASE AGREEMENT** dated ~~May~~ <sup>June</sup> 2, 2005 between Carolina Meadows, Inc., a North Carolina corporation (herein called "Seller"), Aqua North Carolina, Inc., a North Carolina corporation authorized to operate as a public utility (herein called "Buyer") and Aqua America, Inc., a Pennsylvania corporation and parent corporation of Buyer.

**RECITALS**



Seller and Chatham Water Reclamation, Inc. ("Chatham") are the owners of Whippoorwill LLC ("Whippoorwill"), a North Carolina limited liability company, which owns a wastewater treatment facility which is used to provide wastewater service to Seller and as part of a wastewater treatment system operated by Chatham to provide wastewater service to ~~Governors Village, Governors Village Townhomes, Governors Village Offices and Governors Forest, property located in Chatham County, North Carolina. Chatham was authorized to operate the system as a public utility by the North Carolina Utilities Commission ("the Commission") in Docket No. W-1118, Sub- 0 and Sub 1.~~

Buyer is a regulated public utility that furnishes water and wastewater service to the public in certain portions of North Carolina. Buyer proposes to purchase Seller's interest in Whippoorwill together with real property and easements as described more fully below and to enter into a similar Agreement to purchase Chatham's interest in Whippoorwill and its wastewater assets. Buyer will then apply to the Commission for transfer of the franchise from Chatham to it.

Seller desires to sell, and Buyer desires to purchase the Wastewater System Assets (as defined below), upon the terms and conditions set forth herein.

Aqua America, Inc. Desires to join in the execution of this Agreement to guarantee the obligations of Buyer.

**NOW, THEREFORE**, in consideration of the recitals and the covenants, representations, warranties, and agreements herein contained, and intended to be legally bound hereby, the parties hereto agree as follows:

- 1. Sale and Purchase of the Wastewater System Assets**



The "Wastewater System Assets" are defined as the assets, properties and rights listed on Schedule 1.1.

Subject to the terms and conditions hereinafter set forth, the Buyer shall purchase from Seller, and Seller shall sell, assign, transfer, grant, convey and deliver to Buyer, at the Closing (hereinafter defined) the Wastewater System Assets.

The Wastewater System Assets are to be sold free and clear of all mortgages, liens, pledges, security interest, charges, claims, restrictions and encumbrances of any nature whatsoever.

1.1 Wastewater System Assets Further Defined

The Wastewater System Assets shall, without limitation to the definition stated above, include the specific assets, properties and rights set forth in Schedule 1.1.

1.2 Other Attributes of the Wastewater System Assets

The Wastewater System Assets to be conveyed under this Agreement shall include the following assets, properties, rights and appurtenances:

- (a) those parcels of land and easements, described on Schedule 1.1, together with all privileges and appurtenances thereto and all plants, buildings, structures, facilities, installations, fixtures, betterments, additions and other improvements situated thereon together with any other easements used or useful in connection therewith in which Seller has an interest; provided that Buyer agrees not to construct any permanent improvements on said parcel of land within 50' of the property line between Seller and Buyer and will maintain a 50' appropriately landscaped visual buffer between the treatment facilities and Seller's property line;
- (b) all machinery, equipment, and other tangible personal property, including tools, supplies and inventories associated with the wastewater system in which Seller has an interest;
- (c) all rights of Seller which are transferable under any written or oral contract, agreement, lease, plan, instrument, registration, license, permit, certificate or other authorization or approval of any nature, or other document, commitment, arrangement, undertaking, practice or authorization associated with the wastewater system;
- (d) all rights of Seller which are transferable under any easement, right-of-way, occupancy permit, and/or license associated with the wastewater system;
- (e) plans, engineering records, customer service records, including customer records and data, both in paper form and in electronic form associated with the

wastewater system in the possession of Seller; and

- (f) all of Seller's information, files, records, data, plans, system maps, contracts and recorded knowledge, including property records, related to the foregoing.

1.3 Consideration

The purchase price for the Wastewater System Assets will consist of the following payments:

- (a) At Closing, a lump sum payment from Buyer to Seller of Ninety-Five Thousand Dollars (\$95,000).
- (b) No contingent payments of any nature whatsoever will be due in addition to the lump sum payment at Closing.
- (c) At Closing, reimbursement of Seller's legal fees not to exceed Two Thousand Dollars (\$2,000). Any additional legal fees shall be the sole responsibility of Seller.
- (d) As additional consideration, Buyer will furnish Seller a bulk treatment rate of \$2.50 per 1,000 gallons for a period of five years after Closing. The rate will increase to a maximum of \$5.50 per 1,000 gallons for the three year period following Buyer's next general rate case after the five year term. Buyer will install an influent flow meter measuring incoming flow from the Carolina Meadows Community and will provide the meter reading to Seller with each billing.

Unless otherwise agreed, the purchase price at Closing shall be paid via wire transfer of immediately available funds, to the account provided by Seller prior to the Closing.

1.4 Non-Assumption of Liabilities

With the exception of the obligation to provide wastewater service after Closing and the assumed liabilities and contractual obligations specified herein, all liabilities and obligations of Seller shall remain the sole responsibility of Seller. The Buyer shall not assume and shall not be liable for any liabilities or obligations of Seller of any nature whatsoever, whether express or implied, fixed or contingent, save and except for the obligation to provide said utility service. Buyer shall not be responsible for any business, occupation, withholding or similar tax, or for any income, sales, use, value-added or similar taxes related to any period, or transaction occurring during any period, before the Closing Date.

2. Closing

Closing hereunder ("the Closing") shall take place at the offices of the Attorney for Buyer at

219 Fayetteville Street, Suite 1000, commencing at 10:00 a.m. local time, on or before the fifteenth calendar day after the transfer of the Chatham franchise is approved by the Commission or at such other place or on such later date as mutually agreed to by the parties. Application for such approval shall be filed by Chatham and Buyer within thirty (30) days of the execution of the agreement between Buyer and Chatham. The Closing will be done simultaneously with the Closing with Chatham, or immediately thereafter. The effective time of the Closing shall be 12:01 a.m. on the day following the Closing Date.

**2.1 Items to Be Delivered at Closing:**

At or prior to Closing and subject to the terms and conditions herein contained:

**(a) Seller shall deliver to Buyer the following:**

- (i) a Bill of Sale and other instruments and documents of conveyance and transfer, all in form reasonably satisfactory to Seller and Buyer and their respective counsel, as shall be necessary and effective to transfer and assign to, and vest in Buyer good and marketable title to the Wastewater System Assets;**
- (ii) a Special Warranty Deed for the fee parcel to be conveyed to Buyer as part of the Wastewater System Assets. Seller will assist Buyer in securing a standard title insurance policy on such real estate with the title examination fees and the cost of the policy being paid by Buyer;**
- (iii) a Grant or Assignment of Easements, in a form reasonably satisfactory to Seller and Buyer and their respective counsel, to convey to Buyer all easement rights associated with the Wastewater System Assets.**
- (iv) copies of, or the originals of, all of the agreements, contracts, commitments, leases, plans, bids, quotations, proposals, instruments, certificates, permits and other instruments belonging to Seller that are part of or related to the Wastewater System Assets;**
- (v) applications for the transfer of permits, if any, as prepared by the Buyer on standard forms used by applicable regulatory agencies.**
- (vi) Seller shall also deliver such other documents and instruments as may be necessary or required to effectuate the transaction evidenced in this agreement, including such documents as are necessary to convey Seller's interest in Whippoorwill to Buyer.**

**(b) Buyer shall deliver to Seller the following:**

- (i) the purchase price due at Closing pursuant to Section 1.3 of this Agreement;**

(ii) articles of incorporation and by-laws of Buyer, a good standing certificate of Buyer obtained within thirty (30) days of Closing, the most recent annual report of Aqua America, Inc., and evidence of appropriate corporate approvals;

(iii) Buyer shall also deliver such other documents and instruments as may be necessary or required to effectuate the transaction evidenced in this agreement.

Simultaneously with such deliveries, all steps shall be taken as may be required to put Buyer in actual possession and operating control of the Wastewater System Assets, to include transfer of all permits, if any, at Closing.

2.2 Proration of Property Taxes

Ad valorem taxes on real and personal property conveyed by Seller to Buyer shall be prorated on a calendar year basis through the Closing Date.

2.3 Remedy



Seller acknowledges that the Wastewater System Assets are unique and not otherwise available and agrees that, in addition to any other remedy available to Buyer, Buyer may invoke any equitable remedy to enforce performance hereunder, including, without limitation, the remedy of specific performance.

2.4 Further Assurances

Seller will execute, acknowledge and deliver to Buyer from time to time such other instruments of sale, conveyance, assignment and transfer and will take such other actions and execute and deliver such other documents, certifications and further assurances as Buyer may reasonably require to vest in Buyer all of Seller's right, title and interest in and to the Wastewater System Assets.

3. Conditions Precedent to Closing

The Closing of the transaction shall be contingent upon the following:

- (a) Seller shall provide a Certificate at Closing certifying that (a) the representations of Seller herein are true and accurate as of Closing Date and (ii) that Seller has performed and satisfied all covenants, agreements and conditions that were required to be performed by it under the Agreement on or before the Closing Date;
- (b) Buyer shall be satisfied, within ten (10) days of the execution of this Agreement, with the results of its due diligence inspection of the Wastewater System Assets, including any environmental site assessment that Buyer may elect to perform. In the event Buyer is not satisfied with the results of its due diligence within said 10-day period, Buyer shall notify Seller in writing on or before the end of such period,

whereupon this Agreement shall automatically terminate, be rendered null and void and of no further force and effect, and the parties shall have no liabilities or obligations to each other. Failure of Buyer to notify Seller in writing as aforesaid shall be deemed to be an approval by Buyer of its due diligence and satisfaction of this condition.

- (c) Seller and Buyer and Chatham shall have received all required approvals from regulatory agencies, including the required approvals of the Commission, to enable Buyer to secure a Certificate of Convenience and Necessity which will allow it to assume the ownership and operation of the Wastewater System Assets and to provide wastewater service to Seller at the rates specified herein and to Chatham's franchised area at the rates presently authorized for Chatham, with the rate base authorized by the Commission being equal to the total purchase price paid by Buyer to Seller and Chatham.
- (d) On the Closing Date, no proceeding shall be pending or threatened before any court or governmental agency in which it is sought to restrain or prohibit or to obtain damages or other relief in connection with this Agreement or in the consummation of the transactions contemplated hereby, and no investigation that might eventuate in any such suit, action or proceeding shall be pending or threatened.
- (e) There shall be no material adverse change or damage to the condition of the Wastewater System Assets.
- (f) Buyer shall be satisfied in its reasonable discretion with the results of the title report regarding the real property to be acquired hereunder.
- (g) Seller shall have approved in writing Buyer's plans and specifications and construction schedule for the upgraded plant referred to in Section 6 (g).

**4. Representations and Warranties of Seller**

In making this instrument, Seller makes the following representations and warranties:

- (a) Seller, or Whippoorwill (as detailed on Schedule 1.1) owns the Wastewater System Assets and has good and marketable title to the Wastewater System Assets, free and clear of all liens and encumbrances, except for liens to lenders which will be released on or before Closing.
- (b) Except as otherwise provided herein, including Schedule 4 (b), neither the execution and delivery of the Agreement by Seller, nor consummation and performance of the transactions contemplated thereby (a) requires the approval or consent of any federal, state, local or other governmental body or agency that has not been obtained; (ii) results in the violation of any law,

ordinance or regulation to which Seller is subject; or (iii) results in a violation of any judgment, order, writ, injunction or decree of any court or of any governmental official, agency or instrumentality which is applicable to Seller.

- (c) The execution and delivery of the Agreement and the performance of the transactions contemplated thereby does not violate, conflict with or result in the breach (with or without the giving of notice or lapse of time or both) of any term, condition or provision of any instrument, contract, lease, agreement, permit, certificate or other document to which Seller is a party, or is otherwise bound affected, or by which any of the Wastewater System Assets may be bound affected.
- (d) Seller has full power and authority to sell, convey, assign, transfer and deliver the Wastewater System Assets to Buyer as provided in the Agreement.
- (e) To the best of Seller's knowledge, there are no pending or threatened claims regarding the Wastewater System Assets or Seller's ability to transfer the Wastewater System Assets.
- (f) Seller does not know or have reason to know of any events or conditions related to the Wastewater System Assets that would give rise to any material liability under any of the environmental laws.
- (g) Seller does not know or have reason to know of any material violation of, or material lack of compliance with, any law, ordinance or government rule or regulation to which the Wastewater System Assets are subject.
- (h) Seller does not know or have reason to know of any existing or threatened condition, which would have a material adverse effect on the Wastewater System Assets.
- (i) Except as disclosed on Schedule 4(a), there are no liabilities or obligations of Seller, either accrued, absolute, contingent or otherwise, relating to the Wastewater System Assets. For purposes of this Agreement, the term liabilities shall include, without limitation, any direct or indirect indebtedness, guaranty, endorsement, claim, loss, damage, deficiency, cost, expense, obligation or responsibility, either accrued, absolute, contingent or otherwise.
- (j) Except as disclosed on Schedule 4(f), the Seller is not party to any contract for the purchase of, or payment for supplies, equipment or for services related to the Wastewater System Assets, except such contracts that shall not survive Closing

or  
or

or

shall remain Seller's sole responsibility.

- (k) Seller is not a party to any contract, commitment or arrangement, which will survive Closing, with any labor union or other representative of employees with respect to the Wastewater System Assets.
- (l) There are no liens, encumbrances or security interests against the Wastewater System Assets that will not be paid off or released by Seller at Closing.

## 5. Indemnification

Seller and Buyer each hereby acknowledge and understand that, following the effective time of Closing, Buyer shall be responsible for the provision of wastewater service to Seller and to the franchise served by Chatham. Other than the future provision of wastewater service, Buyer does not and shall not assume or incur liability or obligation of Seller of any nature whatsoever, express or implied, fixed or contingent. Seller shall indemnify and hold harmless Buyer and its officers, employees and agents from and against all liabilities and obligations of Seller, and from any and all claims, actions, judgments and fines arising from any misrepresentation or breach of warranty by Seller under this Agreement or related to the Wastewater System Assets to the extent such claims, actions, etc., involve activities or events that occurred or originated prior to the effective time of Closing. Conversely, Buyer shall indemnify and hold harmless Seller and its officers, employees and agents from and against all liabilities and obligations of Buyer, and from and against any and all claims, actions, judgments and fines arising from any misrepresentation or breach of warranty by Buyer under this Agreement or related to the Wastewater System Assets to the extent such claims, actions, etc., involve activities or events that occurred and originated after the effective time of Closing. The indemnification provisions of this Section 5 shall survive the Closing for a period of two (2) years; provided, any claims relating to the provision of wastewater service to Seller shall survive for the applicable statute of limitations under North Carolina law.

## 6. Covenants, Representations and Agreements of Buyer

- (a) Buyer is a North Carolina corporation duly organized and validly existing and is in good standing under the laws of the State of North Carolina.
- (b) Buyer has the requisite power and authority to own and operate the type of system assets that are being acquired pursuant to this Agreement.
- (c) Except as otherwise provided herein, neither the execution and delivery of the Agreement by Buyer, nor consummation and performance of the transactions contemplated thereby (a) requires the approval or consent of any federal, state, local or other governmental body or agency that has not been obtained; (ii) results in the violation of any law, ordinance or regulation to which Buyer is subject; or (iii) results in a violation of any judgment, order, writ, injunction or decree of any court or of any governmental official, agency or instrumentality which is applicable to Buyer.

- (d) The execution and delivery of the Agreement and the performance of the transactions contemplated thereby does not violate, conflict with or result in the breach (with or without the giving of notice or lapse of time or both) of any term, condition or provision of any instrument, contract, lease, agreement, permit, certificate or other document to which the Buyer is a party, or is otherwise bound or affected, or by which any of the Wastewater System Assets may be bound or affected.
- (e) Buyer, upon the receipt of regulatory approvals, has the full power and authority to acquire the Wastewater System Assets as provided in the Agreement.
- (f) Buyer will reimburse Seller or Chatham on a dollar for dollar basis all costs of future extensions or expansions as provided for in Section 7b.
- (g) ~~Buyer will pay for and construct a replacement or upgraded plant with a treatment capacity of 350,00 gallons per day in accordance with plans and specifications and a construction schedule to be approved by Seller and Chatham prior to Closing.~~
- (h) ~~Buyer will guarantee Seller a treatment capacity of 120,000 gallons per day through December 31, 2008. If Seller has not notified Buyer of any expansion plans prior to January 1, 2009, the guaranteed capacity will be reduced to 90,000 gallons per day and shall remain at such rate until such time as a change is mutually agreed to in writing by Buyer and Seller.~~
- (i) Buyer is currently operating the Wastewater System Assets, and Buyer has had the opportunity to satisfy itself as to the operating condition of the assets.
- (j) After Closing, Buyer will provide Seller with access to all contracts, certificates, plans, engineering records, maps and other documents related to the Wastewater System Assets as Seller may reasonably need. Seller, at its cost and expense, may make copies of any such documents as needed.

**7. Covenants, Representations and Agreements of Seller**

Without limiting the other promises expressed or implied on the part of Seller hereunder, Seller specifically covenants and agrees to the following items as part of the overall transaction set forth in the Agreement:

- (a) Seller shall proceed to obtain the subdivisions, if any, on a timely basis prior to the scheduled Closing date, of the parcels of land that are to be conveyed to Buyer as set forth in Schedule 1.1 of this Agreement relating to the components of real estate included in the Wastewater System Assets.
- (b) Upon Buyer's request, Seller will apply to the Corp of Engineers for a transfer of the existing outflow pipeline easement from Seller to Buyer. If required by the



Corp of Engineers, Seller will maintain the existing 3.29 acre conservation easement with the North Carolina Wildlife Resources Commission. Otherwise, Buyer will be responsible for payment of all costs associated with such transfer.

**8. General Provisions**

**8.1 Notices**

Any notice, waiver or other communication which is required or permitted hereunder shall be in writing and shall be deemed given only if delivered personally or sent by overnight delivery service or registered or certified mail, postage prepaid, return receipt requested, as follows:

**If to Buyer:**

**with a required copy to:**

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

Laurence A. Cobb  
Sanford Holshouser LLP  
Post Office Box 2447  
Raleigh, North Carolina 27602

Attention: Neil R. Phillips, President.

**If to Seller:**

**with a required copy to:**

Carolina Meadows, Inc.  
100 Carolina Meadows  
Chapel Hill, North Carolina 27517-8505

Reich L. Welborn  
Moore & Van Allen, PLLC  
430 Davis Drive, Suite 500  
Morrisville, North Carolina 27560

Attention: Rob Boening, Executive Director

or to such other address as the addressee may have specified in a written notice duly given to the sender as provided herein. Such notice, request, demand, waiver, consent, approval or other communication will be deemed to have been given as of the date so delivered, or mailed.

**8.2 Governing Law**

This instrument shall be governed by and enforced in accordance with the laws of the State of North Carolina.

**8.3 Restrictions on Assienment**

Neither party hereto shall have the right to assign their interest herein to another party, without the prior written consent of the other party. Any approved assignment (i) shall be in writing, with the assignee assuming all obligations hereunder, and (ii) such assignment shall not relieve any party hereto of liability for its obligations hereunder.

#### 8.4 Contents of Agreement: Parties in Interest: etc.

This Agreement sets forth the entire understanding of the parties hereto with respect to the transactions contemplated hereby. This Agreement shall not be amended or modified except by written instrument duly executed by each of the parties hereto. Any and all previous agreements and understandings between or among any or all of the parties regarding the subject matter hereof, whether written or oral, are superseded by this Agreement.

#### 8.5 Binding Effect

All of the terms and provisions of this Agreement shall be binding upon, inure to the benefit of and be enforceable by the legal representatives, successors and assigns of Seller or Buyer.

#### 8.6 Attachments and Schedules

All Attachments and Schedules referred to herein are intended to be and hereby are specifically made a part of this Agreement.

#### 8.7 Severability

Any provision of this Agreement that is invalid or unenforceable in any jurisdiction or under any circumstance shall be ineffective to the extent of such invalidity or unenforceability without invalidating or rendering unenforceable the remaining provisions hereof, and any such invalidity or unenforceability in any jurisdiction or under any circumstance shall not invalidate or render unenforceable such provision in any other jurisdiction or under any other circumstance, unless, in either event, the involved or unenforceable provision causes this Agreement to fail of its essential purpose.

#### 8.8 Counterparts

This Agreement may be executed in any number of counterparts and any signatory hereto may execute any such counterpart, each of which when executed and delivered shall be deemed to be an original and all of which counterparts taken together shall constitute but one and the same instrument. This Agreement shall become binding when one or more counterparts taken together shall have been executed and delivered by all signatories. It shall not be necessary in making proof of this Agreement or any counterpart hereof to produce or account for any of the other counterparts.

#### 9. **Regulatory Approval**

Within ten (10) business days following the execution of the agreement between Buyer and Seller, Buyer will commence all necessary actions and file all necessary documents, applications and/or instruments at the Commission and such other regulatory agencies as may be required to secure regulatory approvals required to complete this transaction and diligently pursue such approval until

received. Seller agrees to cooperate with Buyer in connection with such approvals, including executing any documents or instruments as may be required or producing any documents requested; however, Seller shall not be obligated to pay any fees, costs or expenses in connection with the approval processes.

10. **Disclaimer**

Except as provided in Section 4 hereof:

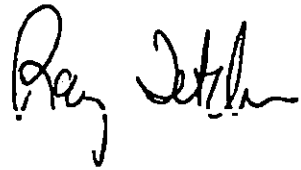
**THE ASSETS SHALL BE CONVEYED AND TRANSFERRED TO BUYER "AS-IS, WHERE IS AND WITH ALL PHYSICAL FAULTS", and**


**THE SELLER DOES NOT WARRANT OR MAKE ANY REPRESENTATION, EXPRESS OR IMPLIED, AS TO THE PHYSICAL FITNESS FOR A PARTICULAR PURPOSE, MERCHANTABILITY, DESIGN, QUANTITY, QUALITY, LAYOUT, FOOTAGE, PHYSICAL CONDITION, OPERATION, OR ANY OTHER MATTER AFFECTING THE PHYSICAL NATURE OF THE ASSETS.**

**THE SELLER AFTER CLOSING SHALL BE UNDER NO OBLIGATION WHATSOEVER TO UNDERTAKE ANY REPAIRS, ALTERATIONS OR OTHER WORK OF ANY KIND WITH RESPECT TO ANY PORTION OF THE WATER SYSTEM ASSETS.**

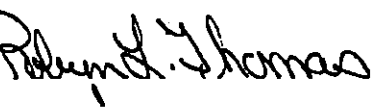
IN WITNESS WHEREOF, intending to be legally bound, the parties hereto have duly executed this Agreement on the date first above written Aqua America, Inc. joins in this Agreement to guarantee the obligations of Aqua North Carolina, Inc., including the obligations under the contract referred to in Section 2.1 (b)(iii).

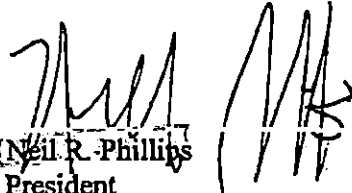
**CAROLINA MEADOWS, INC.**

Witness:  
Attest: 

By:   
Rob Boening  
Executive Director

**AQUA NORTH CAROLINA, INC.**

Attest: 

By:   
Neil R. Phillips  
President

**AQUA AMERICA, INC.**

Attest:

By:  
Richard D. Hugus  
Regional President  
Aqua America - South

IN WITNESS WHEREOF, intending to be legally bound, the parties hereto have duly executed this Agreement on the date first above written Aqua America, Inc. joins in this Agreement to guarantee the obligations of Aqua North Carolina, Inc., including the obligations under the contract referred to in Section 2.1 (b)(iii).

CAROLINA MEADOWS, INC.

Witness: Ray Jett  
Attest: Ray Jett

By: Rob Boening  
Rob Boening  
Executive Director

AQUA NORTH CAROLINA, INC.

Attest: Raymond Thomas

By: Neil R. Phillips  
Neil R. Phillips  
President

AQUA AMERICA, INC.

Attest: Raymond Thomas

By: Richard D. Hugus  
Richard D. Hugus  
Regional President  
Aqua America - South

Central  
(Cary) Area I/A

Dear Aqua Customer:

As we move into the New Year, I want to make sure you are up to date on improvements we've made to strengthen our water and wastewater systems, challenges we are addressing, and plans for the future.

Since 2014, Aqua North Carolina has invested nearly \$94 million in numerous water and wastewater projects throughout the state. In your region, the rates our customers pay have gone toward \$49.8 million in system repairs and improvements aimed at enhancing water quality and the service we provide. Examples of completed projects include:

- Installation of new filters to address naturally occurring iron and manganese, and improve water quality
- Wastewater treatment plant repairs and improvements to prevent overflows, protect local waterways, and to comply with new regulatory requirements
- Repairs and replacement of aging infrastructure to improve water quality and flow pressure, and increase system reliability
- Water treatment facility upgrades to provide system redundancy, expand capacity, ensure adequate water supply, and prevent service interruptions
- Wastewater system repairs and improvements to prevent sewage backups
- Meter replacements to ensure accurate billing based on actual usage versus those based on estimated usage

As we look to the future, we will continue to focus on addressing the iron and manganese that exists naturally in the groundwater. While these minerals don't affect health, they can make water look orange or brown and affect the way it tastes and smells.

Working collaboratively with our state regulators, we have developed a plan for carrying out our water quality improvement program:

- For systems with **high levels** of iron and manganese, new filtration treatment will be installed. Our goal is to install new filtration treatment within a reasonable timeline. The wells that need it most will see filtration added within the next five to seven years. Installations will be prioritized based on the amount of compounds in the water.
- Areas with **moderate levels** will be treated with a process to improve overall water aesthetics and continue to be assessed to determine if filtration is also needed.
- Systems with **little to no** iron and manganese presence will be monitored and treated as needed.

All systems will be monitored on an ongoing basis to help ensure safety and overall quality of the water source. We will also employ an aggressive water quality operations plan to help make sure water consistently flows clear. That will mean an increase in scheduled system

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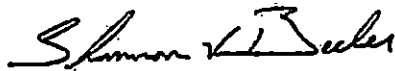
flushing in many communities and a robust tank-cleaning program that spans our operation across the state.

Throughout the coming months, we will be sharing additional information about the water quality plan and other system improvements. You can be assured that the rates you pay are going toward the water and/or wastewater system improvements that we know are a high priority for you and your community.

To keep you updated as we move ahead, we have also created a website focused on the water quality improvements we're making – [www.ncwaterquality.com](http://www.ncwaterquality.com). Once there, please sign up to receive updates about our work so you can stay informed.

At Aqua, our mission is to protect and provide Earth's most essential resource. I am excited to be rolling-out this plan to systematically address aesthetic water quality issues due to the naturally occurring iron and manganese in many well water systems today. We are also committed to ongoing system enhancements to improve both the quality of water and reliability of service. Aqua's management and staff are always here to assist you. If you have any questions, please contact us at 877.987.2782.

Sincerely,



Shannon V. Becker  
President  
Aqua North Carolina

Denver & Kernersville Area

Dear Aqua Customer:

As we move into the New Year, I want to make sure you are up to date on improvements we've made to strengthen our water and wastewater systems, challenges we are addressing, and plans for the future.

Since 2014, Aqua North Carolina has invested nearly \$94 million in numerous water and wastewater projects throughout the state. In your region, the rates our customers pay have gone toward \$23.8 million in system repairs and improvements aimed at enhancing water quality and the service we provide. Examples include:

- Filter upgrades to address naturally occurring iron and manganese, and improve water quality
- Repairs and replacement of aging infrastructure to improve water quality and flow pressure, and increase system reliability
- Water treatment facility upgrades to provide system redundancy, expand capacity, ensure adequate water supply, and prevent service interruptions
- Wastewater treatment plant repairs and improvements to prevent overflows, protect local waterways, and to comply with new regulatory requirements
- Wastewater system repairs and improvements to prevent sewage backups

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All systems will be monitored on an ongoing basis to help ensure safety and overall quality of the water source. We will also employ an aggressive water quality operations plan to help make sure water consistently flows clear. That will mean an increase in scheduled system flushing in many communities and a robust tank-cleaning program that spans our operation across the state.



Throughout the coming months, we will be sharing additional information about the water quality plan and other system improvements. You can be assured that the rates you pay are going toward the water and/or wastewater system improvements that we know are a high priority for you and your community.

To keep you updated as we move ahead, we have also created a website focused on the water quality improvements we're making - [www.ncwaterquality.com](http://www.ncwaterquality.com). Once there, please sign up to receive updates about our work so you can stay informed.

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Sincerely,



Shannon V. Becker  
President  
Aqua North Carolina

Fayetteville Area

Dear Aqua Customer:

As we move into the New Year, I want to make sure you are up to date on improvements we've made to strengthen our water and wastewater systems, challenges we are addressing, and plans for the future.

Since 2014, Aqua North Carolina has invested nearly \$94 million in numerous water and wastewater projects throughout the state. In your region, the rates our customers pay have gone toward ~~\$9.3 million~~ in system repairs and improvements aimed at enhancing water quality and the service we provide. Examples include:

- Repairs and replacement of aging infrastructure to improve water quality and flow pressure, and increase system reliability
- Filter upgrades to address naturally occurring iron and manganese, and improve water quality
- Water treatment facility upgrades to provide system redundancy, expand capacity, ensure adequate water supply, and prevent service interruptions
- Wastewater system repairs and improvements to prevent sewage backups

As we look to the future, we will continue to focus on addressing the iron and manganese that exists naturally in the groundwater. While these minerals don't affect health, they can make water look orange or brown and affect the way it tastes and smells.

Working collaboratively with our state regulators, we have developed a plan for carrying out our water quality improvement program:

- For systems with **high levels** of iron and manganese, new filtration treatment will be installed. Our goal is to install new filtration treatment within a reasonable timeline. The wells that need it most will see filtration added within the next five to seven years. Installations will be prioritized based on the amount of compounds in the water.
- Areas with **moderate levels** will be treated with a process to improve overall water aesthetics and continue to be assessed to determine if filtration is also needed.
- Systems with **little to no** iron and manganese presence will be monitored and treated as needed.

All systems will be monitored on an ongoing basis to help ensure safety and overall quality of the water source. We will also employ an aggressive water quality operations plan to help make sure water consistently flows clear. That will mean an increase in scheduled system flushing in many communities and a robust tank-cleaning program that spans our operation across the state.

Throughout the coming months, we will be sharing additional information about the water quality plan and other system improvements. You can be assured that the rates you pay are

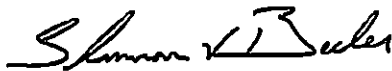
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going toward the water and/or wastewater system improvements that we know are a high priority for you and your community.

To keep you updated as we move ahead, we have also created a website focused on the water quality improvements we're making - [www.ncwaterquality.com](http://www.ncwaterquality.com). Once there, please sign up to receive updates about our work so you can stay informed.

At Aqua, our mission is to protect and provide Earth's most essential resource. I am excited to be rolling-out this plan to systematically address aesthetic water quality issues due to the naturally occurring iron and manganese in many well water systems today. We are also committed to ongoing system enhancements to improve both the quality of water and reliability of service. Aqua's management and staff are always here to assist you. If you have any questions, please contact us at 877.987.2782.

Sincerely,



Shannon V. Becker  
President  
Aqua North Carolina

⑤

Wilmington  
Area

Dear Aqua Customer:

As we move into the New Year, I want to make sure you are up to date on Improvements we've made to strengthen our water and wastewater systems, challenges we are addressing, and plans for the future.

Since 2014, Aqua North Carolina has invested nearly \$94 million in numerous water and wastewater projects throughout the state. In your region, the rates our customers pay have gone toward \$11 million in system repairs and improvements aimed at enhancing water quality and the service we provide. Examples include:

- Wastewater treatment plant repairs and improvements to prevent overflows, protect local waterways, and to comply with new regulatory requirements
- Wastewater system repairs and improvements to prevent sewage backups
- Repairs and replacement of aging infrastructure to improve water quality and flow pressure, and increase system reliability
- Water treatment facility upgrades to provide system redundancy, expand capacity, ensure adequate water supply, and prevent service interruptions

As we look to the future, we will continue to focus on addressing the iron and manganese that exists naturally in the groundwater. While these minerals don't affect health, they can make water look orange or brown and affect the way it tastes and smells.

Working collaboratively with our state regulators, we have developed a plan for carrying out our water quality improvement program:

- For systems with **high levels** of iron and manganese, new filtration treatment will be installed. Our goal is to install new filtration treatment within a reasonable timeline. The wells that need it most will see filtration added within the next five to seven years. Installations will be prioritized based on the amount of compounds in the water.
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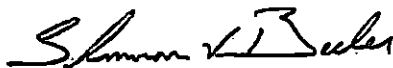
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going toward the water and/or wastewater system improvements that we know are a high priority for you and your community.

To keep you updated as we move ahead, we have also created a website focused on the water quality improvements we're making - [www.ncwaterquality.com](http://www.ncwaterquality.com). Once there, please sign up to receive updates about our work so you can stay informed.

At Aqua, our mission is to protect and provide Earth's most essential resource. I am excited to be rolling-out this plan to systematically address aesthetic water quality issues due to the naturally occurring iron and manganese in many well water systems today. We are also committed to ongoing system enhancements to improve both the quality of water and reliability of service. Aqua's management and staff are always here to assist you. If you have any questions, please contact us at 877.987.2782.

Sincerely,



Shannon V. Becker  
President  
Aqua North Carolina

# AQUA.

June 2018

Dear Brayton Park Customer:

At Aqua North Carolina, water quality and continuous service are our highest priorities. We strive every day to listen to you, our customer, and invest in system improvements and enhancements that benefit our customers and their daily lives.

Since 2014, Aqua North Carolina has invested approximately \$94 million in water and wastewater system repairs and improvements throughout the state. Examples include:

- Filter installations and upgrades to address naturally occurring iron and manganese, and improve water quality
- Wastewater treatment plant repairs and improvements to prevent overflows, protect local waterways, and to comply with new regulatory requirements
- Repairs and replacement of aging infrastructure to improve water quality and flow pressure, and increase system reliability
- Water treatment facility upgrades to provide system redundancy, expand capacity, ensure adequate water supply, and prevent service interruptions
- Meter replacements to ensure accurate billing based on actual usage versus those based on estimated usage

For Brayton Park, the rates you pay have gone toward repairs and improvements, including:

- Installation of a new water filter to address naturally occurring iron and manganese, and improve water quality
- Increased tank cleaning to address naturally occurring iron and manganese, and improve water quality

The rates you pay will also go toward the installation of an additional new water filter to improve water quality. These system investments are part of our water quality improvement program to address the iron and manganese that exists naturally in the groundwater. While these minerals don't affect health, they can make water look orange or brown and affect the way it tastes and smells.

Working collaboratively with our state regulators, our program includes:

- For systems with **high levels** of iron and manganese, new filtration treatment will be installed. Our goal is to install new filtration treatment within a reasonable timeline. The wells that need it most will see filtration added within the next five to seven years. Installations will be prioritized based on the amount of compounds in the water.
- Areas with **moderate levels** will be treated with a process to improve overall water aesthetics and continue to be assessed to determine if filtration is also needed.
- Systems with **little to no** iron and manganese presence will be monitored and treated as needed.

All systems will be monitored on an ongoing basis to help ensure safety and overall quality of the water source. We will also employ an aggressive water quality operations plan to help make sure water consistently flows clear. That will mean an increase in scheduled system flushing in many communities and a robust tank-cleaning program that spans our operation across the state.

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At Aqua North Carolina, we are also committed to ongoing system enhancements to improve both the quality of water and reliability of service. For more information, please visit [www.ncwaterquality.com](http://www.ncwaterquality.com) and sign up to receive updates about our work so you can stay informed, or please contact us at 877.987.2782.

Sincerely,



Shannon V. Becker  
President  
Aqua North Carolina

# AQUA.

June 2018

Dear Brandon Station, Still Water Landing, Stonehenge, and Wildwood Green Customers:

At Aqua North Carolina, water quality and continuous service are our highest priorities. We strive every day to listen to you, our customer, and invest in system improvements and enhancements that benefit our customers and their daily lives.

Since 2014, Aqua North Carolina has invested approximately \$94 million in water and wastewater system repairs and improvements throughout the state. Examples include:

- Filter installations and upgrades to address naturally occurring iron and manganese, and improve water quality
- Wastewater treatment plant repairs and improvements to prevent overflows, protect local waterways, and to comply with new regulatory requirements
- Repairs and replacement of aging infrastructure to improve water quality and flow pressure, and increase system reliability
- Water treatment facility upgrades to provide system redundancy, expand capacity, ensure adequate water supply, and prevent service interruptions
- Meter replacements to ensure accurate billing based on actual usage versus those based on estimated usage

For Brandon Station, Still Water Landing, Stonehenge, and Wildwood Green, the rates you pay have gone toward the installation of a new water filter to address the naturally occurring iron and manganese, and improve water quality.

As we look to the future, the rates you pay will go toward:

- Reactivation of two wells with iron, manganese, and other treatment improvements to improve water quality
- Connection to Raleigh to increase system reliability, help ensure adequate water supply, and prevent service interruptions

We will continue to focus on addressing the iron and manganese that exists naturally in the groundwater. While these minerals don't affect health, they can make water look orange or brown and affect the way it tastes and smells.

Working collaboratively with our state regulators, we have developed a plan for carrying out our water quality improvement program:

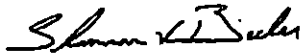
- For systems with **high levels** of iron and manganese, new filtration treatment will be installed. Our goal is to install new filtration treatment within a reasonable timeline. The wells that need it most will see filtration added within the next five to seven years. Installations will be prioritized based on the amount of compounds in the water.
- Areas with **moderate levels** will be treated with a process to improve overall water aesthetics and continue to be assessed to determine if filtration is also needed.
- Systems with **little to no** iron and manganese presence will be monitored and treated as needed.



All systems will be monitored on an ongoing basis to help ensure safety and overall quality of the water source. We will also employ an aggressive water quality operations plan to help make sure water consistently flows clear. That will mean an increase in scheduled system flushing in many communities and a robust tank-cleaning program that spans our operation across the state.

At Aqua North Carolina, we are also committed to ongoing system enhancements to improve both the quality of water and reliability of service. For more information, please visit [www.ncwaterquality.com](http://www.ncwaterquality.com) and sign up to receive updates about our work so you can stay informed, or please contact us at 877.987.2782.

Sincerely,



Shannon V. Becker  
President  
Aqua North Carolina

# AQUA<sup>SM</sup>

*Your community is our community, too. We work in your towns, live in your neighborhoods, and frequent your businesses. At Aqua, we care about the people and the communities we serve – it's what drives us to continually invest in our systems to improve quality and service.*

**QUALITY**

Filter upgrades and installation of new filters to address naturally occurring iron and manganese, and improve water quality

**RELIABILITY**

Repairs and replacement of aging infrastructure to improve water quality and flow pressure, and increase system reliability

**ENVIRONMENTAL**

Wastewater treatment plant repairs and improvements to protect local waterways, and comply with new regulatory requirements

**SERVICE**

Water treatment facility upgrades to provide system redundancy, expand capacity, ensure adequate water supply, and prevent service interruptions

Aqua North Carolina is committed to improving water quality for our customers, including addressing the naturally occurring iron and manganese.

Visit [www.ncwaterquality.com](http://www.ncwaterquality.com) and sign up to receive updates about our work.



Aqua's management and staff are always here to assist you. If you have any questions, please contact Aqua Customer Service at 877.987.2782 or visit [www.ncwaterquality.com](http://www.ncwaterquality.com)

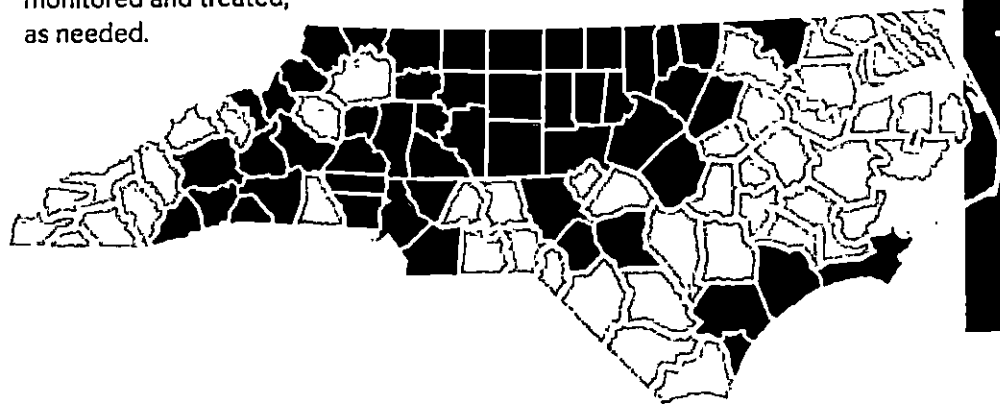


## Aqua North Carolina President Outlines Water Quality Improvement Plan

In a recent letter to Aqua North Carolina customers, President Shannon V. Becker described plans to address aesthetic water quality issues in some of our well water systems in the state. Working with state regulators, Aqua's water improvement program addresses naturally occurring iron and manganese. These minerals don't affect health, but they can make water look discolored or affect the way it tastes and smells. The plan includes:

- For systems with high levels of iron and manganese, new filtration treatment will be installed. The goal is to install new filtration treatment within a reasonable timeline; the wells that need it most will see filtration within the next three to five years. Installations will be prioritized based on the amount of compounds in the water.
- Areas with moderate levels will be treated with a process to improve overall water aesthetics.
- Systems with little to no iron and manganese presence will be monitored and treated, as needed.
- All systems will be monitored on an ongoing basis to help ensure safety and overall quality of the water source.
- At the same time, Aqua will be employing an aggressive water quality operations plan to help make sure water consistently flows clear. This will mean an increase in scheduled system flushing in many communities and a robust tank-cleaning program that spans Aqua's operation across the state.

■ AQUA



### Aqua in Action

Since 2014, Aqua North Carolina has invested nearly \$94 million in water and wastewater system repairs and improvements statewide. Examples include.

- Filter installations and upgrades and other water quality improvements to remove naturally occurring iron and manganese, and improve water quality
  - Repairs and replacement of aging infrastructure to improve water pressure and increase system reliability to prevent service interruptions
  - Wastewater system repairs and replacements to help prevent sewage backups into your home
  - Wastewater facility and treatment upgrades to prevent overflows, protect local waterways, and meet regulatory requirements
- Aqua continues to carry out ongoing system enhancements to improve both the quality of water and reliability of service.

*For updates as Aqua moves ahead, please visit [NCWaterQuality.com](http://NCWaterQuality.com).*



## Iron and Manganese FAQs

Aqua North Carolina is rolling out a plan to lessen the impact of iron and manganese on your water supply. But what exactly are these minerals, and how do they affect your water?



### 1. What is iron and manganese?

Iron and manganese are naturally occurring minerals that can be found in the earth's bedrock. About five percent of the earth's crust is composed of iron, while 0.1 percent is made of manganese.

### 2. How does it get in my water?

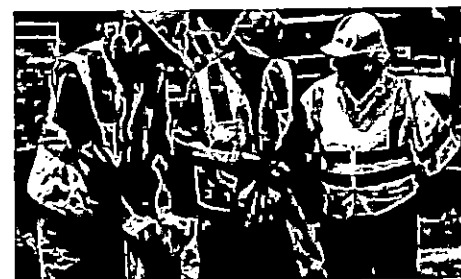
Water traveling through soil and rock can dissolve minerals as it passes through, carrying microscopic particles as it flows. When water containing iron and manganese leaves the aquifer through the well and eventually becomes exposed to oxygen, it oxidizes the minerals, causing it to change from colorless, dissolved forms to colored, solid forms.



### 3. What is Aqua doing to address iron and manganese?

Working with its state regulators, Aqua developed a multi-phase plan for improving water quality across our communities. First steps included instituting specific criteria to analyze and prioritize filtration need based on the level of iron and manganese found in the water.

Aqua will prioritize filter installations for systems with the greatest levels of iron and manganese. Most wells will see filters within the next three to five years. In the meantime, Aqua will begin an aggressive tank-cleaning and system-flushing program in communities served by these wells.



In communities with lower levels of iron and manganese, Aqua will examine the possibility of filter installation, as well as the need to add new processes that will keep iron and manganese in its colorless state. Tank cleaning and system flushing will be carried out as mineral levels dictate.



**For more frequently asked questions, visit [NCWaterQuality.com](http://NCWaterQuality.com).**

*Iron and Manganese are pervasive, naturally occurring minerals that affect the water supply in North Carolina. While these minerals don't affect health, they can discolor water and affect the way it tastes and smells. In 2017, Aqua North Carolina launched an aggressive water quality improvement program that includes the installation of new filters, enhanced water treatment, tank cleaning, system flushing, and ongoing monitoring to help ensure safety and overall quality of the water source.*

**Visit [NCWaterQuality.com](http://NCWaterQuality.com) for more information.**

Central  
(Cary) Area

Dear Aqua Customer:

As we move into the New Year, I want to make sure you are up to date on improvements we've made to strengthen our water and wastewater systems, challenges we are addressing, and plans for the future.

Since 2014, Aqua North Carolina has invested nearly \$94 million in numerous water and wastewater projects throughout the state. In your region, the rates our customers pay have gone toward \$49.8 million in system repairs and improvements aimed at enhancing water quality and the service we provide. Examples of completed projects include:

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- Wastewater treatment plant repairs and improvements to prevent overflows, protect local waterways, and to comply with new regulatory requirements
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- Wastewater system repairs and improvements to prevent sewage backups
- Meter replacements to ensure accurate billing based on actual usage versus those based on estimated usage

As we look to the future, we will continue to focus on addressing the iron and manganese that exists naturally in the groundwater. While these minerals don't affect health, they can make water look orange or brown and affect the way it tastes and smells.

Working collaboratively with our state regulators, we have developed a plan for carrying out our water quality improvement program:

- For systems with **high levels** of iron and manganese, new filtration treatment will be installed. Our goal is to install new filtration treatment within a reasonable timeline. The wells that need it most will see filtration added within the next five to seven years. Installations will be prioritized based on the amount of compounds in the water.
- Areas with **moderate levels** will be treated with a process to improve overall water aesthetics and continue to be assessed to determine if filtration is also needed.
- Systems with **little to no** iron and manganese presence will be monitored and treated as needed.

All systems will be monitored on an ongoing basis to help ensure safety and overall quality of the water source. We will also employ an aggressive water quality operations plan to help make sure water consistently flows clear. That will mean an increase in scheduled system

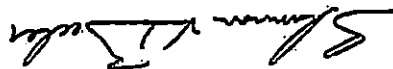
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Throughout the coming months, we will be sharing additional information about the water quality plan and other system improvements. You can be assured that the rates you pay are going toward the water and/or wastewater system improvements that we know are a high priority for you and your community.

To keep you updated as we move ahead, we have also created a website focused on the water quality improvements we're making - [www.ncwaterquality.com](http://www.ncwaterquality.com). Once there, please sign up to receive updates about our work so you can stay informed.

At Aqua, our mission is to protect and provide Earth's most essential resource. I am excited to be rolling-out this plan to systematically address aesthetic water quality issues due to the naturally occurring iron and manganese in many well water systems today. We are also committed to ongoing system enhancements to improve both the quality of water and reliability of service. Aqua's management and staff are always here to assist you. If you have any questions, please contact us at 877.987.2782.

Sincerely,



Shannon V. Becker  
President  
Aqua North Carolina

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Denver &  
Kernersville Area

Dear Aqua Customer:

As we move into the New Year, I want to make sure you are up to date on improvements we've made to strengthen our water and wastewater systems, challenges we are addressing, and plans for the future.

Since 2014, Aqua North Carolina has invested nearly \$94 million in numerous water and wastewater projects throughout the state. In your region, the rates our customers pay have gone toward \$23.8 million in system repairs and improvements aimed at enhancing water quality and the service we provide. Examples include:

- Filter upgrades to address naturally occurring iron and manganese, and improve water quality
- Repairs and replacement of aging infrastructure to improve water quality and flow pressure, and increase system reliability
- Water treatment facility upgrades to provide system redundancy, expand capacity, ensure adequate water supply, and prevent service interruptions
- Wastewater treatment plant repairs and improvements to prevent overflows, protect local waterways, and to comply with new regulatory requirements
- Wastewater system repairs and improvements to prevent sewage backups

As we look to the future, we will continue to focus on addressing the iron and manganese that exists naturally in the groundwater. While these minerals don't affect health, they can make water look orange or brown and affect the way it tastes and smells.

Working collaboratively with our state regulators, we have developed a plan for carrying out our water quality improvement program:

- For systems with high levels of iron and manganese, new filtration treatment will be installed. Our goal is to install new filtration treatment within a reasonable timeline. The wells that need it most will see filtration added within the next five to seven years. Installations will be prioritized based on the amount of compounds in the water.
- Areas with moderate levels will be treated with a process to improve overall water aesthetics and continue to be assessed to determine if filtration is also needed.
- Systems with little to no iron and manganese presence will be monitored and treated as needed.

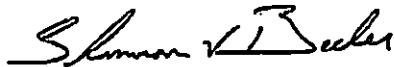
All systems will be monitored on an ongoing basis to help ensure safety and overall quality of the water source. We will also employ an aggressive water quality operations plan to help make sure water consistently flows clear. That will mean an increase in scheduled system flushing in many communities and a robust tank-cleaning program that spans our operation across the state.

Throughout the coming months, we will be sharing additional information about the water quality plan and other system improvements. You can be assured that the rates you pay are going toward the water and/or wastewater system improvements that we know are a high priority for you and your community.

To keep you updated as we move ahead, we have also created a website focused on the water quality improvements we're making - [www.ncwaterquality.com](http://www.ncwaterquality.com). Once there, please sign up to receive updates about our work so you can stay informed.

At Aqua, our mission is to protect and provide Earth's most essential resource. I am excited to be rolling-out this plan to systematically address aesthetic water quality issues due to the naturally occurring iron and manganese in many well water systems today. We are also committed to ongoing system enhancements to improve both the quality of water and reliability of service. Aqua's management and staff are always here to assist you. If you have any questions, please contact us at 877.987.2782.

Sincerely,



Shannon V. Becker  
President  
Aqua North Carolina



Fayetteville Area

Dear Aqua Customer:

As we move into the New Year, I want to make sure you are up to date on improvements we've made to strengthen our water and wastewater systems, challenges we are addressing, and plans for the future.

Since 2014, Aqua North Carolina has invested nearly \$94 million in numerous water and wastewater projects throughout the state. In your region, the rates our customers pay have gone toward \$9.3 million in system repairs and improvements aimed at enhancing water quality and the service we provide. Examples include:

- Repairs and replacement of aging infrastructure to improve water quality and flow pressure, and increase system reliability
- Filter upgrades to address naturally occurring iron and manganese, and improve water quality
- Water treatment facility upgrades to provide system redundancy, expand capacity, ensure adequate water supply, and prevent service interruptions
- Wastewater system repairs and improvements to prevent sewage backups

As we look to the future, we will continue to focus on addressing the iron and manganese that exists naturally in the groundwater. While these minerals don't affect health, they can make water look orange or brown and affect the way it tastes and smells.

Working collaboratively with our state regulators, we have developed a plan for carrying out our water quality improvement program:

- For systems with **high levels** of iron and manganese, new filtration treatment will be installed. Our goal is to install new filtration treatment within a reasonable timeline. The wells that need it most will see filtration added within the next five to seven years. Installations will be prioritized based on the amount of compounds in the water.
- Areas with **moderate levels** will be treated with a process to improve overall water aesthetics and continue to be assessed to determine if filtration is also needed.
- Systems with **little to no** iron and manganese presence will be monitored and treated as needed.

All systems will be monitored on an ongoing basis to help ensure safety and overall quality of the water source. We will also employ an aggressive water quality operations plan to help make sure water consistently flows clear. That will mean an increase in scheduled system flushing in many communities and a robust tank-cleaning program that spans our operation across the state.


Throughout the coming months, we will be sharing additional information about the water quality plan and other system improvements. You can be assured that the rates you pay are

going toward the water and/or wastewater system improvements that we know are a high priority for you and your community.

To keep you updated as we move ahead, we have also created a website focused on the water quality improvements we're making – [www.ncwaterquality.com](http://www.ncwaterquality.com). Once there, please sign up to receive updates about our work so you can stay informed.

At Aqua, our mission is to protect and provide Earth's most essential resource. I am excited to be rolling-out this plan to systematically address aesthetic water quality issues due to the naturally occurring iron and manganese in many well water systems today. We are also committed to ongoing system enhancements to improve both the quality of water and reliability of service. Aqua's management and staff are always here to assist you. If you have any questions, please contact us at 877.987.2782.

Sincerely,



Shannon V. Becker  
President  
Aqua North Carolina

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Wilmington  
Area

Dear Aqua Customer:

As we move into the New Year, I want to make sure you are up to date on improvements we've made to strengthen our water and wastewater systems, challenges we are addressing, and plans for the future.

Since 2014, Aqua North Carolina has invested nearly \$94 million in numerous water and wastewater projects throughout the state. In your region, the rates our customers pay have gone toward \$11 million in system repairs and improvements aimed at enhancing water quality and the service we provide. Examples include:

- Wastewater treatment plant repairs and improvements to prevent overflows, protect local waterways, and to comply with new regulatory requirements
- Wastewater system repairs and improvements to prevent sewage backups
- Repairs and replacement of aging infrastructure to improve water quality and flow pressure, and increase system reliability
- Water treatment facility upgrades to provide system redundancy, expand capacity, ensure adequate water supply, and prevent service interruptions

As we look to the future, we will continue to focus on addressing the iron and manganese that exists naturally in the groundwater. While these minerals don't affect health, they can make water look orange or brown and affect the way it tastes and smells.

Working collaboratively with our state regulators, we have developed a plan for carrying out our water quality improvement program:

- For systems with **high levels** of iron and manganese, new filtration treatment will be installed. Our goal is to install new filtration treatment within a reasonable timeline. The wells that need it most will see filtration added within the next five to seven years. Installations will be prioritized based on the amount of compounds in the water.
- Areas with **moderate levels** will be treated with a process to improve overall water aesthetics and continue to be assessed to determine if filtration is also needed.
- Systems with **little to no** iron and manganese presence will be monitored and treated as needed.

All systems will be monitored on an ongoing basis to help ensure safety and overall quality of the water source. We will also employ an aggressive water quality operations plan to help make sure water consistently flows clear. That will mean an increase in scheduled system flushing in many communities and a robust tank-cleaning program that spans our operation across the state.

Throughout the coming months, we will be sharing additional information about the water quality plan and other system improvements. You can be assured that the rates you pay are

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going toward the water and/or wastewater system improvements that we know are a high priority for you and your community.

To keep you updated as we move ahead, we have also created a website focused on the water quality improvements we're making - [www.ncwaterquality.com](http://www.ncwaterquality.com). Once there, please sign up to receive updates about our work so you can stay informed.

At Aqua, our mission is to protect and provide Earth's most essential resource. I am excited to be rolling-out this plan to systematically address aesthetic water quality issues due to the naturally occurring iron and manganese in many well water systems today. We are also committed to ongoing system enhancements to improve both the quality of water and reliability of service. Aqua's management and staff are always here to assist you. If you have any questions, please contact us at 877.987.2782.

Sincerely,



Shannon V. Becker  
President  
Aqua North Carolina

# AQUA

June 2018

Dear Brayton Park Customer:

At Aqua North Carolina, water quality and continuous service are our highest priorities. We strive every day to listen to you, our customer, and invest in system improvements and enhancements that benefit our customers and their daily lives.

Since 2014, Aqua North Carolina has invested approximately \$94 million in water and wastewater system repairs and improvements throughout the state. Examples include:

- Filter installations and upgrades to address naturally occurring iron and manganese, and improve water quality
- Wastewater treatment plant repairs and improvements to prevent overflows, protect local waterways, and to comply with new regulatory requirements
- Repairs and replacement of aging infrastructure to improve water quality and flow pressure, and increase system reliability
- Water treatment facility upgrades to provide system redundancy, expand capacity, ensure adequate water supply, and prevent service interruptions
- Meter replacements to ensure accurate billing based on actual usage versus those based on estimated usage

For Brayton Park, the rates you pay have gone toward repairs and improvements, including:

- Installation of a new water filter to address naturally occurring iron and manganese, and improve water quality
- Increased tank cleaning to address naturally occurring iron and manganese, and improve water quality

The rates you pay will also go toward the installation of an additional new water filter to improve water quality. These system investments are part of our water quality improvement program to address the iron and manganese that exists naturally in the groundwater. While these minerals don't affect health, they can make water look orange or brown and affect the way it tastes and smells.

Working collaboratively with our state regulators, our program includes:

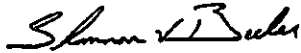
- For systems with **high levels** of iron and manganese, new filtration treatment will be installed. Our goal is to install new filtration treatment within a reasonable timeline. The wells that need it most will see filtration added within the next five to seven years. Installations will be prioritized based on the amount of compounds in the water.
- Areas with **moderate levels** will be treated with a process to improve overall water aesthetics and continue to be assessed to determine if filtration is also needed.
- Systems with **little to no** iron and manganese presence will be monitored and treated as needed.

All systems will be monitored on an ongoing basis to help ensure safety and overall quality of the water source. We will also employ an aggressive water quality operations plan to help make sure water consistently flows clear. That will mean an increase in scheduled system flushing in many communities and a robust tank-cleaning program that spans our operation across the state.

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At Aqua North Carolina, we are also committed to ongoing system enhancements to improve both the quality of water and reliability of service. For more information, please visit [www.ncwaterquality.com](http://www.ncwaterquality.com) and sign up to receive updates about our work so you can stay informed, or please contact us at 877.987.2782.

Sincerely,



Shannon V. Becker  
President  
Aqua North Carolina

# AQUA.

June 2018

Dear Brandon Station, Still Water Landing, Stonehenge, and Wildwood Green Customers:

At Aqua North Carolina, water quality and continuous service are our highest priorities. We strive every day to listen to you, our customer, and invest in system improvements and enhancements that benefit our customers and their daily lives.

Since 2014, Aqua North Carolina has invested approximately \$94 million in water and wastewater system repairs and improvements throughout the state. Examples include:

- Filter installations and upgrades to address naturally occurring iron and manganese, and improve water quality
- Wastewater treatment plant repairs and improvements to prevent overflows, protect local waterways, and to comply with new regulatory requirements
- Repairs and replacement of aging infrastructure to improve water quality and flow pressure, and increase system reliability
- Water treatment facility upgrades to provide system redundancy, expand capacity, ensure adequate water supply, and prevent service interruptions
- Meter replacements to ensure accurate billing based on actual usage versus those based on estimated usage

For Brandon Station, Still Water Landing, Stonehenge, and Wildwood Green, the rates you pay have gone toward the installation of a new water filter to address the naturally occurring iron and manganese, and improve water quality.

As we look to the future, the rates you pay will go toward:

- Reactivation of two wells with iron, manganese, and other treatment improvements to improve water quality
- Connection to Raleigh to increase system reliability, help ensure adequate water supply, and prevent service interruptions

We will continue to focus on addressing the iron and manganese that exists naturally in the groundwater. While these minerals don't affect health, they can make water look orange or brown and affect the way it tastes and smells.

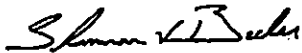
Working collaboratively with our state regulators, we have developed a plan for carrying out our water quality improvement program:

- For systems with **high levels** of iron and manganese, new filtration treatment will be installed. Our goal is to install new filtration treatment within a reasonable timeline. The wells that need it most will see filtration added within the next five to seven years. Installations will be prioritized based on the amount of compounds in the water.
- Areas with **moderate levels** will be treated with a process to improve overall water aesthetics and continue to be assessed to determine if filtration is also needed.
- Systems with **little to no** iron and manganese presence will be monitored and treated as needed.

All systems will be monitored on an ongoing basis to help ensure safety and overall quality of the water source. We will also employ an aggressive water quality operations plan to help make sure water consistently flows clear. That will mean an increase in scheduled system flushing in many communities and a robust tank-cleaning program that spans our operation across the state.

At Aqua North Carolina, we are also committed to ongoing system enhancements to improve both the quality of water and reliability of service. For more information, please visit [www.ncwaterquality.com](http://www.ncwaterquality.com) and sign up to receive updates about our work so you can stay informed, or please contact us at 877.987.2782.

Sincerely,



Shannon V. Becker  
President  
Aqua North Carolina



# AQUA<sup>SM</sup>

*Your community is our community, too. We work in your towns, live in your neighborhoods, and frequent your businesses. At Aqua, we care about the people and the communities we serve – it's what drives us to continually invest in our systems to improve quality and service.*

**QUALITY**

Filter upgrades and installation of new filters to address naturally occurring iron and manganese, and improve water quality

**RELIABILITY**

Repairs and replacement of aging infrastructure to improve water quality and flow pressure, and increase system reliability

**ENVIRONMENTAL**

Wastewater treatment plant repairs and improvements to protect local waterways, and comply with new regulatory requirements

**SERVICE**

Water treatment facility upgrades to provide system redundancy, expand capacity, ensure adequate water supply, and prevent service interruptions

Aqua North Carolina is committed to improving water quality for our customers, including addressing the naturally occurring iron and manganese.

Visit [www.ncwaterquality.com](http://www.ncwaterquality.com) and sign up to receive updates about our work.



Aqua's management and staff are always here to assist you. If you have any questions, please contact Aqua Customer Service at 877.987.2782 or visit [www.ncwaterquality.com](http://www.ncwaterquality.com)

# AQUA NORTH CAROLINA Water Quality News



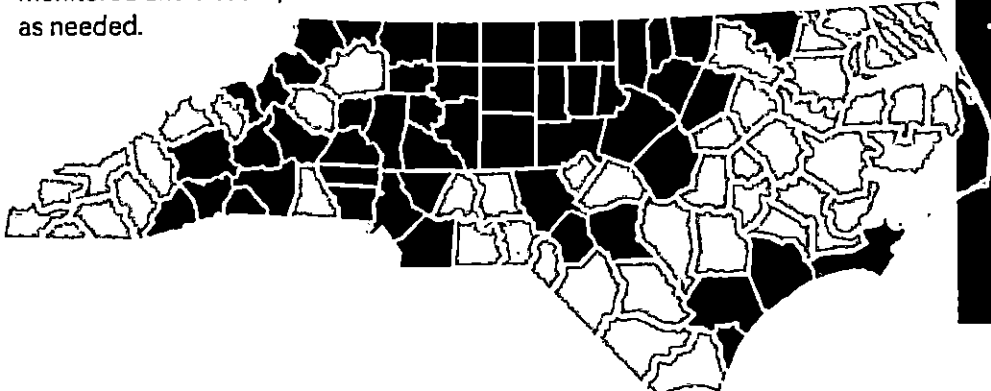
June 2018

## Aqua North Carolina President Outlines Water Quality Improvement Plan

In a recent letter to Aqua North Carolina customers, President Shannon V. Becker described plans to address aesthetic water quality issues in some of our well water systems in the state. Working with state regulators, Aqua's water improvement program addresses naturally occurring iron and manganese. These minerals don't affect health, but they can make water look discolored or affect the way it tastes and smells. The plan includes:

- For systems with high levels of iron and manganese, new filtration treatment will be installed. The goal is to install new filtration treatment within a reasonable timeline; the wells that need it most will see filtration within the next three to five years. Installations will be prioritized based on the amount of compounds in the water.
- Areas with moderate levels will be treated with a process to improve overall water aesthetics.
- Systems with little to no iron and manganese presence will be monitored and treated, as needed.
- All systems will be monitored on an ongoing basis to help ensure safety and overall quality of the water source.
- At the same time, Aqua will be employing an aggressive water quality operations plan to help make sure water consistently flows clear. This will mean an increase in scheduled system flushing in many communities and a robust tank-cleaning program that spans Aqua's operation across the state.

■ AQUA



*For updates as Aqua moves ahead, please visit [NCWaterQuality.com](http://NCWaterQuality.com).*



### Aqua in Action

Since 2014, Aqua North Carolina has invested nearly \$94 million in water and wastewater system repairs and improvements statewide.

Examples include.

- Filter installations and upgrades and other water quality improvements to remove naturally occurring iron and manganese, and improve water quality
  - Repairs and replacement of aging infrastructure to improve water pressure and increase system reliability to prevent service interruptions
  - Wastewater system repairs and replacements to help prevent sewage backups into your home
  - Wastewater facility and treatment upgrades to prevent overflows, protect local waterways, and meet regulatory requirements
- Aqua continues to carry out ongoing system enhancements to improve both the quality of water and reliability of service.



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## Iron and Manganese FAQs

Aqua North Carolina is rolling out a plan to lessen the impact of iron and manganese on your water supply. But what exactly are these minerals, and how do they affect your water?



### 1. What is iron and manganese?

Iron and manganese are naturally occurring minerals that can be found in the earth's bedrock. About five percent of the earth's crust is composed of iron, while 0.1 percent is made of manganese.



### 2. How does it get in my water?

Water traveling through soil and rock can dissolve minerals as it passes through, carrying microscopic particles as it flows. When water containing iron and manganese leaves the aquifer through the well and eventually becomes exposed to oxygen, it oxidizes the minerals, causing it to change from colorless, dissolved forms to colored, solid forms.



### 3. What is Aqua doing to address iron and manganese?

Working with its state regulators, Aqua developed a multi-phase plan for improving water quality across our communities. First steps included instituting specific criteria to analyze and prioritize filtration need based on the level of iron and manganese found in the water.

Aqua will prioritize filter installations for systems with the greatest levels of iron and manganese. Most wells will see filters within the next three to five years. In the meantime, Aqua will begin an aggressive tank-cleaning and system-flushing program in communities served by these wells.



In communities with lower levels of iron and manganese, Aqua will examine the possibility of filter installation, as well as the need to add new processes that will keep iron and manganese in its colorless state. Tank cleaning and system flushing will be carried out as mineral levels dictate.

**For more frequently asked questions, visit [NCWaterQuality.com](http://NCWaterQuality.com).**

*Iron and Manganese are pervasive, naturally occurring minerals that affect the water supply in North Carolina. While these minerals don't affect health, they can discolor water and affect the way it tastes and smells. In 2017, Aqua North Carolina launched an aggressive water quality improvement program that includes the installation of new filters, enhanced water treatment, tank cleaning, system flushing, and ongoing monitoring to help ensure safety and overall quality of the water source.*

**Visit [NCWaterQuality.com](http://NCWaterQuality.com) for more information.**

Ref. May 14, 2002 doc  
SFRE (3 bdrm) 240 gpd  
\$6-00 capacity fee

W-218  
Sub 4-77

Buffalo Creek

STATE OF NORTH CAROLINA  
COUNTY OF JOHNSTON

AGREEMENT

THIS AGREEMENT, made 15<sup>th</sup> day of AUGUST 2017 by and between BFP DEVELOPERS, LLC, a NC limited liability company (hereafter "Developer" as defined below) and AQUA NORTH CAROLINA, INC., a corporation, with its principal office in Cary, North Carolina, whose mailing address is 202 Mackenan Court, Cary, North Carolina 27511, (hereafter referred to as "Aqua" as defined below);

WITNESSETH:

THAT WHEREAS, Developer is the owner of the certain lands off NC Hwy 42 East, Johnston County, North Carolina, known as Bedford at Flowers Plantation, POD NE3 and NE4 (hereafter referred to as "Subdivision" as defined below); and shown on that certain map attached hereto and incorporated herein as Appendix 1; and

WHEREAS, Developer is desirous of installing in Subdivision a Water Utility System (defined below) and a Wastewater Utility System (defined below) to provide water and sewer utility services to all those persons now or hereafter owning lots in Subdivision and requiring water utility service; and

WHEREAS, Developer has requested Aqua to purchase, own, and operate said Water Utility System and Wastewater Utility System; and

WHEREAS, Aqua is agreeable to purchasing, owning, and operating the completed systems;

NOW, THEREFORE, for and in consideration of the premises and of the rights, powers and duties hereinafter set forth to be performed by each, Developer and Aqua mutually do agree as follows:

1. Definitions.

1.1. "Agreement" shall mean this Agreement for the Installation, Conveyance, and Operation of the Water Utility System (defined below) or Water Utility System Phase and Wastewater Utility System or Wastewater Utility System Phase serving the Subdivision, including all exhibits and schedules hereto, if any; as amended from time to time.

1.2. "Aqua" shall mean Aqua North Carolina, Inc., a North Carolina Flowers Plantation Service Area

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Oct 24 2017

corporation, its successors and assigns, whose business address is 202 Mackenari Court, Cary, North Carolina, 27511.

1.3. "Assets" shall mean shall mean the Deeded Property (defined below), the Water Utility System (defined below) relating to each Water Utility System Phase (defined below) and the Wastewater Utility System relating to each Wastewater Utility System Phase which is necessary and proper to provide water and sewer utility service to the Subdivision.

X 1.4. "Bulk Water Agreement" shall mean that certain agreement signed by Aqua and Johnston County, dated May 14, 2002 and Amended February 7, 2006 for the purchase of water gallons per SFRE (defined below) for each planned SFRE in a Subdivision.

~~1.5. "Bulk Wastewater Agreement" shall mean that certain agreement signed by Aqua and Johnston County, dated May 14, 2002 and Amended September 30, 2009 for the purchase of bulk wastewater treatment per SFRE for each planned SFRE in a Subdivision.~~

1.6. "Certificate" shall mean a Certificate of Public Convenience and Necessity for water utility service at the Subdivision (defined below) issued by the North Carolina Utilities Commission.

1.7. "Certificate Extension" shall mean an extension to the Certificate.

1.8. "CIAC" shall mean cash Contribution In Aid of Construction paid by the Developer to the Aqua to recover Aqua's capital costs in the Water Utility System (defined below) and Wastewater Utility System (defined below).

1.9. "Closing" shall mean each instance upon which the Assets are transferred from Developer to Aqua regardless of being at one time or in phases.

1.10. "Closing Date" shall mean the date of the initial or subsequent date of applicable Closing, as the context requires.

1.11. "Collection System Permit" shall mean the permit for the construction and operation of the Wastewater Utility System issued by DWQ (defined below) and all modifications thereto.

1.12. "Commission" shall mean the North Carolina Utilities Commission.

1.13. "County" shall mean Johnston County, North Carolina.

1.14. "DWQ" shall mean the Division of Water Resources, Public Water Supply Section of the North Carolina Department of Environmental Quality.

1.15. "DWR" shall mean the North Carolina Division of Water Resources, Public Water Supply Section.

1.16. "Declaration" shall mean a declaration of covenants, conditions and restrictions for the Subdivision (defined below).

1.17. "Deeded Property" shall mean the lift station lot(s), perpetual easement(s) and other real estate property that is a part of the Water Utility System (defined below) and Wastewater Utility System which are owned by Developer and are used in connection with the Water Utility System (defined below) or Wastewater Utility System not located within publicly dedicated rights of way and the rights and interests in and to the access and utility easement being granted, transferred and assigned by the Developer to Aqua, including but not limited to lift station lots, private easements, or other real estate property which are needed for the construction, operation, maintenance, repair, and replacement of the Water Utility System and Wastewater Utility System.

1.18. "Developer" shall mean BFP DEVELOPERS, LLC, a North Carolina limited liability company, its successors and assigns, whose business address is 1210 Trinity Road, Suite 102, Raleigh, NC 27607.

1.19. "GPD" means gallons per day,

1.20. "GPM" means gallons per minute.

1.21. "Household Service Lines" shall mean the portion of the individual household water line and sewer line for which Aqua will not assume maintenance responsibility. The Household Service Lines shall include only that portion of the individual household water line that extends from the Aqua's water meter at or near the property line or street to the home or dwelling and only that portion of the individual household wastewater line that extends from sewer cleanout at or near the property line or street to the home or dwelling. The portion of the line extending from the water meter to the water main at or near the street and the portion of the wastewater line that extends from the sewer cleanout to the sewer main shall not be included in the term "Household Service Lines."

1.22. "Permit" or "Permits" shall mean the Water Permit and/or the Authorization to Construct Issued by DWR and/or the Collection System Permit Issued by DWQ, as the context requires.

1.23. "SFRE" or "Single Family Residential Equivalent" for purposes of this Agreement the number of SFRE represented by a user shall be determined as follows:

- a. where there is a single family residential building or dwelling with less than a 1" meter size the lot or unit shall be equal to one SFRE. For each single family residential building or dwelling with greater than a 1" meter use the chart below. ~~The design flow of one single family residential building with three bedrooms is equal to 240 gpd. The design flow of one single family residential building with four bedrooms is equal to 320 gpd.~~
- b. where there is a commercial or non-residential facility use the chart below.

Meter Size	SFRE
<1"	1.0
1"	2.5
1.5"	5.0
2"	8.0
3"	15.0
4"	25.0
6"	50.0

1.24 "Subdivision" shall mean the property to be developed known as Bedford at Flowers Plantation which is POD NE3 and NE4 of the Flowers Plantation Master System and shown on that certain map attached hereto as Appendix 1 which shall consist of 193 lots total and shall be developed in multiple phases.

1.25 "Wastewater Facilities" shall mean Aqua's existing Flowers Plantation Master Wastewater System in which the Wastewater Utility System (defined below) shall be connected to.

1.26 "Wastewater Plans" are all plans and specifications for the Wastewater Utility System approved by the County (if required), Aqua, and DWQ and engineered by Developer's engineer.

1.27 "Wastewater Service Line" shall mean the portion of the individual household wastewater line for which Aqua will assume maintenance responsibility. The Wastewater Service Line shall include only that portion of the individual household wastewater line that extends from the sewer cleanout at or near the property line to Aqua's wastewater main at or near the street. The portion of the line extending from the home to the sewer cleanout shall not be included in the term "Wastewater Service Line."

1.28 "Wastewater Utility System" shall mean the Wastewater Service Lines (defined below), gravity-collection lines, force mains, lift stations, and all appurtenant equipment that will deliver wastewater from the customers at the Subdivision to Aqua's WWTP (defined below) for treatment and disposal.

1.29 "Wastewater Utility System Phase" shall mean any discrete phase of development of the Wastewater Utility System, including any modifications to the Wastewater Utility System necessary to permit sewer service to the Subdivision, which the Developer elects to convey to Aqua upon its completion.

1.30 "Water Facilities" shall mean Aqua's existing Flowers Plantation Master Water System in which the Water Utility System (defined below) shall be connected to.

1.31 "Water Permit" shall mean the Application for Approval and/or the Authorization to Construct Issued by DWR approving the Water Plans and authorizing the construction of the Water Utility System.

1.32 "Water Plans" shall mean all plans and specifications, as may be amended from time to time, for the Water Utility System (defined below) approved by County (if required), Aqua and DWR and engineered by Developer's engineer.

1.33 "Water Service Line" shall mean the portion of the water line for which Aqua will assume maintenance responsibility. The Water Service Line shall include only that portion of the individual water line that extends from the Aqua's water meter, at or near the property line or street, to the Water Utility System's water main at or near the street, unless the water meter is not on the individual lot owner's property in which case Aqua shall assume maintenance responsibility up to the



property line. The portion of the line extending from the water meter at or near the street to the house or dwelling shall not be included in the term "Water Utility System Service Line."

1.34. "Water Utility System" shall mean the distribution system, including interconnection to Aqua's Water Facilities, and other facilities used in the distribution of water including but not limited to: all water mains, interconnections, services, meter boxes, meter yokes, backflow preventors, and other additional components of the Water Utility System necessary to serve water to the lots in the Subdivision.

1.35. "Water Utility System Phase" shall mean any discrete phase of the Subdivision's Water Utility System, including any modifications to the Water Utility System necessary to permit water service to the Subdivision, which the Developer elects to convey to Aqua upon its completion.

1.36. "WWTP" shall mean Aqua's existing Neuse Colony wastewater treatment plant located off NC Hwy 42 permitted by DWQ in Permit No. NC0064564.

**2. Water Utility System.**

**2.1. Design & Permitting Requirements.**

Developer, at Developer's cost, shall cause Water Plans for the Water Utility System of the Subdivision to be designed by Developer's engineer. The final Water Plans shall be approved by both Aqua and DWR. Such approval by Aqua shall not be unreasonably withheld, conditioned or delayed. The Water Plans shall incorporate Aqua's current specifications dated August 2013 revised October 2013, as may be amended from time to time, into the design standards, a copy of which has been delivered to Developer and Developer acknowledges receipt thereof. The Water Plans shall include facilities and equipment for water distribution including the interconnection to Aqua's Water Facilities to serve up to 193 residential connections which will be developed in phases.

b. Developer shall pay for the design and DWR permitting requirements of the Water Utility System. Said Permit shall name Aqua as permittee.

c. Aqua and Developer agree that if the Subdivision includes Irrigation facilities for common open space areas, Developer, at Developer's cost, shall have the Developer's engineer incorporate the Irrigation tap into the Water

Plans. Property owner shall obtain and pay for all County permits that are necessary in order to construct and operate irrigation facilities.

2.2. Construction of the Water Utility System. Developer shall construct the Water Utility System, including interconnection to Aqua's Water Facilities, and assume all costs and expenses for doing so without reimbursement from Aqua except as specified under Sections 2.5 and 5.2.d of this Agreement. Aqua reserves the right to make periodic inspections of the Water Utility System throughout its construction. Such inspection should not be considered either a substitute or for the Developer's engineer's duties and responsibilities to inspect the construction and installation of the Water Utility System or a waiver of any requirements applicable to the design or construction of the Water Utility System. As required by North Carolina General Statutes Section 130A-317 and Rules Governing Public Water Supply Systems, 15A NCAC 18 C. 0305(a), neither Developer nor Aqua shall construct or begin construction of any portion of the Water Utility System prior to approval of the Water Plans by DWR or prior to the issuance of an Authorization to Construct by DWR. In the event that any fines or penalties are assessed against the Aqua (as the applicant for the water system), the Engineer, or the Developer as a result of the Developer installing all or a portion of the Water Utility System without DWR approval, Developer shall pay any such fine or penalty -- or reimburse Aqua for the amount of such fine or penalty -- prior to meters being installed or water service being provided in the Subdivision.

2.3. Cash Contribution In Aid of Construction for Water Capacity. Developer shall pay to Aqua a cash CIAC, the same dollar amount per SFRE which Aqua must pay County as a capital cost recovery charge (which currently is \$3.25 per gallon based on 240 gallons per SFRE), under the Bulk Water Agreement between Aqua and County, for each planned connection in that phase of Subdivision. Payment shall be made by Developer to Aqua for each SFRE being developed at the time Developer records the Subdivision plat with the County and prior to Aqua providing service. Fees for lots that have not been paid for will be calculated based on the County's current fee at the time the Subdivision plat is recorded.

2.4. Water Utility System's Written Certification of Costs. Developer before the Closing shall deliver to Aqua a written certification of the Developer's actual cost in the Water Utility System showing the cost of the entire Water Utility System including distribution facilities and engineering fees for the water system, which shall have a breakdown between the various components showing the vendors and appropriate amounts. Said Written Certification of Costs Form is attached hereto as EXHIBIT 2.4.

2.5. Water Utility System Purchase Price Payments. Aqua, as Aqua's investment, is purchasing, upon Closing, from Developer the total Assets complete and installed in accordance with the Water Plans approved by DWR and Aqua, regardless of being installed all at one time or in Phases. The total purchase price paid by Aqua for the Assets serving approximately 193 residential lots shall be \$400 per SFRE. Said purchase price shall be payable quarterly based on the total number of SFRE's connected by Aqua to the Water Utility System during the previous quarter. Payments shall be made on or about each January 15, April 15, July 15, and October 15. The compensation specified in this Paragraph 2.5 of this Agreement shall constitute the full and complete payment that Developer shall receive for the Water Utility System and Developer shall not receive any other compensation from Aqua. Aqua's obligation to make payments pursuant to this paragraph shall not begin until such time as Developer executes and delivers to Aqua the Internal Revenue Service Form W-9.

3. **Wastewater Utility System**

3.1. Design and Permitting Requirements. Developer, at Developer's cost, shall cause Wastewater Plans for the Wastewater Utility System of the Subdivision to be designed by Developer's engineer. The final Wastewater Plans shall be approved by both Aqua and DWQ. Such approval by Aqua shall not be unreasonably withheld, conditioned or delayed. The Wastewater Plans shall incorporate Aqua's current specifications dated August 2013, as may be amended from time to time, into the design standards, a copy of which has been delivered to Developer and Developer acknowledges receipt thereof. The Wastewater Plans shall include facilities and equipment for a wastewater collection system including the interconnection to Aqua's Wastewater Facilities. Developer's engineer shall prepare and process through DWQ the Permit applications and Wastewater Plans for a Wastewater Utility System, including interconnection to Aqua's existing Wastewater Facilities. Aqua shall execute these Permit applications as permittee and cooperate fully with Developer's engineer to expedite the County (if required) and DWQ construction approval process. The Sewer Plans shall include facilities and equipment for a sewer collection system including the interconnection to Aqua's Wastewater Facilities to serve up to 193 residential connections which will be developed in phases.

3.2. Construction of the Wastewater Utility System. Developer, at Developer's expense, shall cause to be installed in Subdivision, a complete Wastewater Utility System, which shall include any required grease traps (if any), the interconnection to Aqua's Wastewater Facilities, and any necessary upgrades

needed to Aqua's existing Wastewater Facilities to serve all lots or units anticipated in the Subdivision. Aqua reserves the right to make periodic inspections of the Wastewater Utility System's installation. Such inspection should not be considered a substitute for the Developer's engineer's duties and responsibilities to inspect the installation. Developer shall pay for the installation costs of all the necessary components of the Wastewater Utility System to provide wastewater utility service to all lots or units in Subdivision. The Wastewater Utility System shall be constructed in such a manner as to restrict entry of groundwater and surface waters into the Wastewater Utility System to at least the minimum standards established by the DWQ regulations for infiltration/inflow. Failure to install a "tight" Wastewater Utility System could result in infiltration/inflow causing the WWTP to exceed its permitted flow limit. This could limit the number of connections that can be served by the Aqua.

3.3. Wastewater Service Line. Developer shall provide a Wastewater Service Line to each residence. This Wastewater Service Line shall consist of a 4" wastewater service tap, a service pipe of adequate size to serve the residence, a clean out at the easement or right of way line, and, in those developments in which Aqua does not also provide water utility service, an elder valve. Developer shall use its best efforts to ensure that its employees, contractors and subcontractors under its control do not break, damage or bury these cleanouts. It shall be the responsibility of the owner of each dwelling unit with a gravity service line to maintain such Household Service Line from their residence to the sewer cleanout at or near the property line. If the cleanout is not at or near the property line, then the owner of that dwelling shall be responsible for maintenance of the Household Service Line up to the property line.

3.4. Cash Contribution in Aid of Construction (CIAC) for WWTP Capacity. ~~Developer shall pay to Aqua a capital cost recovery charge the same dollar amount per gallon as the County's current bulk wastewater capacity fee, under the Bulk Wastewater Agreement between Aqua and County, for each planned connection in that phase of Subdivision (currently \$6.00 per gallon).~~ The CIAC shall be paid by Developer to Aqua for the lots being developed in the Subdivision at the time Developer records the Subdivision plat with the County and prior to Aqua providing service. Fees for lots that have not been paid for will be calculated based on the current capacity costs at the time the Subdivision plat is recorded.

3.5. Wastewater Utility System's Written Certification of Costs. Developer before the Closing shall deliver to Aqua a written certification of the Developer's actual cost in the Wastewater Utility System showing the cost of the entire

Wastewater Utility System including the Wastewater Utility System, and engineering fees, which shall have a breakdown between the various components showing the vendors and appropriate amounts. Said Written Certification of Costs Form is attached hereto as EXHIBIT 3.5.

**4. Oversight Documents Required for Water Utility System and Wastewater Utility System.**

4.1. Certificate of Public Convenience and Necessity. Upon signing of this Agreement, issuance of the Permits and approval of the Water Plans by DWR and Wastewater Plans by DWQ, Aqua will apply to the Commission as soon as may be practicable for a Certificate or for a Certificate Extension to provide water service to the Subdivision. It is mutually understood and agreed that the sale and conveyance of said Assets shall occur only after the granting of the Certificate or Certificate Extension by Commission and approval of the Water Plans and Wastewater Plans and issuance of the Permits by DWR and DWQ. Should the Commission fail to grant the Certificate or Certificate Extension and either party then terminates this Agreement, Aqua agrees to: (i) request DWR and DWQ to rescind or transfer any Permits issued in Aqua's name and (ii) shall terminate or re-convey to Developer any Deeded Property Developer may have transferred to Aqua pursuant to this Agreement.

4.2. Contractors and Construction Warranty. Aqua must approve, in writing and prior to the commencement of any work, all contractors and subcontractors that will be utilized to construct any portion of the Water Utility System or Wastewater Utility System. Attached hereto as EXHIBIT 4.2. (a) is a list of all utility contractors currently approved by Aqua for water utility system and collection system installations. Aqua shall update this list always having a minimum of three approved utility contractors. Developer may submit to Aqua additional names of licensed contractors (including references) for investigation and evaluation by Aqua. Aqua shall not unreasonably withhold condition of delay approval of such additional contractors. At each Closing Developer shall provide Aqua with a one-year warranty on the quality of materials, construction, and workmanship of all Water Utility System and Wastewater Utility System components installed to serve the Water Utility System Phase and Wastewater Utility System Phase in the Subdivision. Such warranties shall commence on the date of Closing of each Water Utility System Phase and Wastewater Utility System Phase and shall be in similar format as the form attached hereto as EXHIBIT 4.2. (b).

4.3. Engineering Certification of Completion & Record Drawings. Developer, at Developer's cost, shall have the engineer provide DWR, DWQ, and Aqua with a signed and sealed letter from Developer's engineer certifying that the Water Utility System and Wastewater Utility System was constructed and completed in compliance with the approved Water Plans, Wastewater Plans, Permits, and applicable regulations. Said letter shall comply in form and substance with DWR and DWQ regulatory requirements, as applicable. Developer, at its expense, shall also provide Aqua with an electronic copy of engineering 'as built' drawings of the Water Utility System Phase and Wastewater Utility System Phase in '.dwg' format and shall include the longitude and latitude of each valve and shall also include two spatial references in the drawings. Developer shall also provide, at its expense, copies of the as built drawings that shall depict the signature and seal of the professional engineer responsible for issuing the as-built drawings in '.pdf' format.

4.4. Recorded Subdivision Plats & Surveys. Upon its recording of any subdivision plat for Subdivision, Developer shall provide Aqua with a copy of the recorded plat showing each lot to be served by the Water Utility System and Wastewater Utility System. A recorded plat shall include the designated lift station lot (if any), described by metes and bounds and designated and approved as a separate legal parcel, and utility and access easements in favor of Aqua for ingress, egress, regress in order to operate, maintain, repair, and replace the water mains, collection system mains, valves manholes, and appurtenant equipment related to the Water Utility System and Wastewater Utility System. Developer shall also provide Aqua with a current plot plan for each lift station lot (if any) showing improvements made to each lift station lot, including but not limited to the access road, collection system main, and any encumbrances.

4.5. Recorded Declarations. In the event that common areas in the Subdivision are encumbered by a Declaration, Developer shall exempt Aqua, the Deeded Properties and all other components of the Water Utility System and Wastewater Utility System from all assessments, use restrictions, and architectural requirements under the Declaration. Aqua agrees that should any building owned by Aqua require future reconstruction, maintenance, or repairs, Aqua shall use reasonable efforts to reconstruct the building to its appearance as of the Closing Date but only if recoverable in rates, otherwise, Aqua shall construct pursuant to its current specifications and design standards. Developer shall insert into the Declarations easement language, in favor of Aqua, allowing Aqua unobstructed ingress, egress, regress, and access to operate, maintain, repair and replace the Water Utility System, Wastewater Utility System, and appurtenant equipment located within the Subdivision. Developer shall also

include language in the Declarations describing the lot owner's responsibility to: a) maintain the Household Service Lines serving the lot in accordance with the provisions of Paragraph 1.21 of this Agreement and b) refrain from erecting any structure within the utility and access easements provided. The Declarations shall further provide Aqua with the right to unilaterally and immediately remove any structure from easements provided to Aqua for the Water Utility System or Wastewater Utility System if the lot owner, person, or entity erecting the structure fails to immediately remove it and, further, shall also require such lot owner responsible to reimburse Aqua for all expenses associated with the removal of the structure as well as any remediation Aqua deems prudent.

4.6. Monthly Rates and Fees. Aqua shall request permission from the Commission to charge its current tariff water rates and fees, including its approved water meter fee, as amended from time to time.

## 5. Conveyance of the Assets.

5.1. Closing Date. Upon receipt of the Certificate or Certificate Extension described in Paragraph 5.1 of this Agreement and receipt of the last item described in this section 5 the Parties shall mutually agree upon a date for the transfer of the Assets, which date shall not be more than thirty (30) days from the date of delivery of the last item described below, regardless of whether multiple Closings occur. The effective time of the legal transfer hereunder shall be 12:01 a.m. on the day following the Closing Date. Upon Closing, Aqua shall be deemed to be the beneficial owner of the Assets. Closing shall take place at the offices of Aqua located at 202 MacKenan Court, Cary, North Carolina or, by telecopy or electronic mail exchange of documents with originals to follow by overnight delivery. Aqua shall not provide water or wastewater service to the Subdivision until Closing has occurred. At the time and on the terms described in this section 5 Developer shall convey to Aqua at no cost to Aqua, except as described in Paragraphs 2.4 and 5.2.c of this Agreement, by deed, easement and bill of sale, as appropriate, the Assets and all rights to operate the Assets installed in accordance with the Water Plans approved by DWR and Wastewater Plans approved by DWQ. Said bill of sale shall be substantially similar in form and substance to that attached hereto as EXHIBIT 5.1.

### 5.2. Deeded Property.

- a. Lift Station Lot(s). Developer agrees to convey to Aqua by general warranty deed or deed of easement each lift station lot that comprises a part

of the Wastewater Utility System, if any. Each lift station lot, shall front upon a publicly dedicated street to provide free and reasonable access to the lift station. In the event the lift station lot does not front upon a publicly dedicated completed street, then Developer shall convey an all weather gravel access road with a perpetual 20-foot easement for ingress, regress, and access to the lift station for operation, maintenance, repair and replacement.

- b. Perpetual Easements. For any portion of the Water Utility System or Wastewater Utility System not located within public rights of way, Developer shall also convey to Aqua a perpetual easement centered 10 feet on each side of the water and sewer mains within the Water Utility System and Wastewater Utility System for ingress, egress, regress, and access for the installation, operation, maintenance, repair and replacement of the Water Utility System and Wastewater Utility System. These easements will be conveyed to Aqua by an assignment and grant of easement that shall be in a form that is recordable with the county's register of deeds. The easements shall prohibit the erection of any building or structure within the right of way provided by the easement.
- c. Instruments and Documents of Conveyance and Transfer. All instruments and documents of conveyance and transfer, shall be in form, reasonably satisfactory to Aqua and its counsel, as shall be necessary to effectuate transfer and assignment to, and vest in, Aqua good and marketable title to the Water Utility System and Wastewater Utility System and all rights to operate the Water Utility System and Wastewater Utility System, including a deed with a warranty of title for any fee parcels, the Grant and Assignment of Easements, and the Bill of Sale and Assignment.
- d. Title Insurance for the Deeded Property. At least 30 days prior to Closing, Developer shall obtain and pay for a title insurance commitment in the amount of \$50,000 for each Deeded Property. The title commitment shall insure that each Deeded Property shall be conveyed at Closing free and clear of all liens and encumbrances and will be insurable at normal rates. Developer shall provide Aqua with a current final owner's title insurance policy at Closing. Aqua, at Closing, shall reimburse the Developer the title insurance premiums Developer paid in connection with the issuance of the title insurance policy provided that Developer has first completed an IRS W-9 Form and delivered such form to Aqua prior to Closing.

5.3. Pre-Closing Deliveries of Developer. Developer shall deliver to Aqua at least 15 days prior to Closing:



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- a. a completed W-9 form as set forth in Paragraph 2.4 and 5.2.c;
- b. a completed written certification of Developer's cost in the Water Utility System and Wastewater Utility System as set forth in Paragraphs 2.4 and 3.5;
- c. a copy of the engineer's letter certifying that the Water Utility System and Wastewater Utility System is installed in compliance with the DWR approved Water Plans and DWQ approved Wastewater Plans as set forth in Paragraph 4.3;
- d. an electronic copy of engineering record drawings of the Water Utility System and Wastewater Utility System as constructed ("as-builts") completed by the engineer of record for the project as set forth in Paragraph 4.3;
- e. a recorded plat and surveys as set forth in Paragraph 4.3;
- f. a copy of the recorded Declarations as set forth in Paragraph 4.4.5;
- g. the title insurance commitment for the Deeded Property as set forth in Paragraph 5.2.c and delivered in accordance with the time frame specified in that section;
- h. a list of physical addresses and lot numbers for each lot in the Subdivision that will be served by the Water Utility System installed in a form substantially similar in a substance to that attached hereto as EXHIBIT 5.3.h;
- i. a list of utility providers for any lift stations constructed as part of the Wastewater Utility System as set forth in Paragraph 5.8.

**5.4. Closing Deliveries of Developer. Developer shall furnish Aqua with:**

- a. a one year construction warranty for the quality of construction on all Water Utility System and Wastewater Utility System components as set forth in Paragraph 4.2;
- b. an executed bill of sale for the Assets, recorded deeds, and perpetual easements in the form provided in EXHIBIT 5.1;
- c. final owner's policy for the Deeded Property as set forth in Paragraph 5.2.c;

d. A release of any mechanics liens and a release of any interest by Developer in the Water Utility System and Wastewater Utility System.

e. Representations and Warranties of Developer. Developer to provide a signed Certificate that represents and warrants the following:

1. Developer is the owner of the Water Utility System and Wastewater Utility System is in good standing under the laws of the State of North Carolina.
2. Developer has full power and authority to sell, convey, assign, transfer and deliver the Water Utility System and Wastewater Utility System to Aqua, including the lift station lot, and grants of easement, and such transfers do not violate, conflict with or result in the breach of any term, condition or provision of any instrument, contract, lease, agreement, permit, certificate or other document to which Developer is a party or is otherwise bound or affected, or by which any of the Water Utility System or Wastewater Utility System may be bound or affected. Developer has good and marketable title to the Water Utility System and Wastewater Utility System, free and clear of all liens and encumbrances.
3. All tangible property included in the Water Utility System and Wastewater Utility System is or will be in good operating condition at the time of conveyance.
4. There are no known violations or noncompliance with the laws and regulations applicable to the Water Utility System, Wastewater Utility System, nor of any environmental problems or concerns relating to the Water Utility System or Wastewater Utility System.

5.5. Closing Requirements of Aqua. Upon Closing Aqua shall (i) reimburse the Developer the title premium fees, (ii) transfer utilities for the lift station(s) to Aqua's name, if any, and (iii) begin operation of the Water Utility System and Wastewater Utility System.

5.6. Conditions Precedent to Utility's Obligations. All obligations of Aqua under this Agreement are subject to the fulfillment or satisfaction of each of the following conditions precedent. Aqua may waive any or all of these conditions, provided, however, that no such waiver of a condition shall constitute a waiver by Aqua of any of its other rights or remedies hereunder.

- a. Aqua shall be satisfied with the condition of the Water Utility System and Wastewater Utility System to be acquired and the quality of construction thereof.
- b. Aqua shall be satisfied with the quality of title for the Deeded Property conveyed to Aqua by Developer.
- c. Developer shall have received (i) final, non-appealable approval from Johnston County for subdivision of the lift station lot (if any) from the larger tract of land of which it is presently a part and (ii) all required authorizations or approvals relating to the Water Utility System and Wastewater Utility System from any governmental authority with jurisdiction over the Water Utility System and Wastewater Utility System, if any.
- d. Developer shall have performed and complied in all material respect with all agreements and conditions required by this Agreement to be performed or complied with by Developer prior to or at Closing.
- e. All representations and warranties shall be true and correct as of the Closings, as evidenced by the Certificate(s) as set forth in Paragraph 5.6.e
- f. Aqua shall have received all governmental authorizations needed for the transfer of Assets including, but not limited to, an Order and Certificate of Public Convenience from the Commission, authorizing: (i) the transfer of Assets as contemplated by this Agreement; (ii) Aqua to provide water and sewer service to the customers in the Subdivision; and (iii) the adoption of initial rates as requested by Aqua pursuant to Paragraph 4.5 of this Agreement. Such governmental authorizations, orders and approvals, including those of the Commission, and other appropriate agencies, if so needed, shall be final and non-appealable, and in a form and substance reasonably satisfactory to Aqua.
- g. At Closing the Water Utility System and Wastewater Utility System shall not be materially adversely affected by fire, explosion, earthquake, disaster, accident, cessation or interruption of utility or other services, flood, drought, lack of water supply, contamination of water supply, embargo, riot, civil disturbance, uprising, activity of armed forces or act of God or public enemy, or any other event or occurrence.
- h. At Closing no proceeding shall be pending or threatened before any court or governmental agency in which it is sought to restrain or prohibit or to

obtain damages or other relief in connection with this Agreement or in the consummation of the transactions contemplated hereby, and no investigation that might eventuate in any such suit, action or proceeding shall be pending or threatened.

5.7. Subsequent Closings. After the Initial Closing, Developer shall notify Aqua in writing upon the completion of each Water Utility System Phase and Wastewater Utility System Phase. Closing for each constructed Water Utility System Phase and Wastewater Utility System Phase shall occur in accordance with section 5 of this Agreement.

5.8. Transfer of Utilities. Upon Closing, Developer and Aqua will cooperate to transfer utility service, including telephone, electric and any other utility service needed that is in Developer's name and is necessary to operate the Water Utility System and Wastewater Utility System. Developer shall provide Aqua with the utility service provider's name, phone number, and account number(s) issued by the service provider for the utility service. Aqua shall complete such transfer of services upon Closing and shall pay its prorated share of costs upon receipt of its first invoice from the provider.

5.9. Taxes and Other Costs. Developer and Aqua shall, if applicable, each pay 50% of the realty transfer tax on all real property conveyed as part of the Water Utility System and Wastewater Utility System, including such as may be levied on each subsequent Phase. Each Party shall bear their own costs related to the preparation for Closing. Aqua shall not be responsible for costs of property taxes on any Deeded Property with respect to which title is not conveyed to Aqua. Aqua shall only be responsible for real estate property which it owns.

6. General Provisions.

6.1. Execution of Future Agreements. After the execution of this Agreement, all new development agreements entered into by Developer for the Subdivision shall be consistent with the terms of this Agreement. Developer also warrants that it has not entered into any development agreements that are inconsistent with the terms of this Agreement.

6.2. Representations Regarding Fire Service. Except as set forth in Schedule 6.2 Seller hereby represents and warrants to Aqua as follows with respect to fire service:

a. Agreements. Seller has not entered into an agreement concerning fire

service other than as disclosed in Schedule 6.2.(a);

- b. Representations about Fire Service. Seller has not made a representation to any customer or other person, business or governmental agency that the system is capable of providing flows to fight any fire other than as disclosed in Schedule 6.2. (b).

6.3. Representations, Warranties, Covenants and Agreements Survive Closing. All representations and warranties of Developer and Aqua hereunder shall survive each Closing. Further, any covenant or agreement herein which contemplates performance after the time of any Closing shall not be deemed to be merged into or waived by the instruments delivered in connection with such Closing, but shall expressly survive such Closing and continue to be binding upon the Parties.

6.4. Binding upon Successors and Assigns. This Agreement shall be binding upon and shall inure to the benefit of Developer and Aqua, and the successors and assigns of each. Neither party may assign this Agreement to a person or entity lacking the financial ability or expertise to perform its obligations hereunder.

6.5. No Third Party Beneficiary Rights. Nothing expressed or implied in this Agreement will be construed as providing any legal or equitable right, remedy or claim under or with respect to this Agreement or any provision of this Agreement to any third party.

6.6. No Agency, Partnership or Joint Venture Created. The Parties are and shall be independent to one another, and nothing herein shall be deemed to create an agency, partnership, or joint venture between them.

6.7. Counterparts. This Agreement may be executed in one or more counterpart signature pages (including facsimile counterpart signature pages), each of which will be deemed to be an original of this Agreement and all of which, when taken together, will be deemed to constitute one and the same agreement.

6.8. Headings. The headings within this Agreement are inserted for convenience only and shall not be construed as a limitation or expansion of any term or provision of this Agreement.

6.9. Enforcement of Agreement. Each Party acknowledges and agrees that

the other Party would be irreparably damaged if any of the provisions of this Agreement are not performed in accordance with their specific terms and that any breach of this Agreement by a Party could not be adequately compensated in all cases by monetary damages alone. Accordingly, in addition to any other right or remedy to which a Party may be entitled, at law or in equity, it shall be entitled to enforce any provision of this Agreement by a decree of specific performance and to temporary, preliminary and permanent injunctive relief to prevent any breach or threatened breach of any of the provisions of this Agreement, without posting any bond or other undertaking.

6.10. Waiver. The failure of a party to immediately assert its rights or an obligation of the other party hereunder shall not be deemed as a waiver of such right or obligation. No single waiver of any term, condition or provision of this Agreement shall be deemed to be, or construed as, a further or continuing waiver of any such term, condition or provision unless agreed to by written instrument.

6.11. Entire Agreement. This writing embodies the entire agreement and understanding between the parties hereto and there are no other agreements or understandings, oral or written, with reference to the subject matter hereof that are not merged herein and superseded hereby. No prior oral commitment shall be binding against either party.

6.12. Modifications in Writing. This Agreement may not be modified, amended or changed in any respect except in writing, duly signed by the parties hereto.

6.13. Limitation on Venue and Jurisdiction. The Parties agree that the state and federal courts in the State of North Carolina shall be the sole and exclusive venues for litigating any disputes concerning this Agreement and that litigation is limited to such court having jurisdiction over any dispute.

6.14. Governing Law. This Agreement shall be governed by the laws of the State of North Carolina, without regard to such state's conflict of law or choice of law rules.

6.15. Authority to Sign Agreement. Both persons signing this Agreement warrant they are fully authorized to sign this Agreement on behalf of Developer or Aqua, to bind their respective part to the terms and conditions of this Agreement and that no further approvals or authorizations are needed to bind their respective parties to its terms.


6.16. Notices. All notices and other communications required or permitted hereunder shall be in writing and shall be sent either (i) personally by hand delivery, (ii) by registered or certified United States first-class mail, postage prepaid, return receipt requested, (iii) by nationally recognized overnight courier, or (iv) by facsimile addressed to the address or facsimile number indicated below (or at such other address or facsimile number as such Party or permitted assignee shall have furnished to the other Parties hereto in writing). All such notices and other written communications shall be effective on the date of delivery.

If to Developer, such notice shall be addressed to:  
BFP DEVELOPERS, LLC  
1210 Trinity Road, Suite 102, Raleigh, NC 27607  
Attn: Managing Member

If to Aqua, such notice shall be addressed to:  
Aqua North Carolina, Inc.  
202 MacKenan Court, Cary, NC 27511  
Attn: President  
Telephone: (919) 467-8712  
Facsimile: (919) 466-1788

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed on this date and year first noted above.

BFP DEVELOPERS, LLC

  
Managing Member

AQUA NORTH CAROLINA, INC.

  
Shannon V. Becker, President

Aqua BERGER  
REBUTTAL  
EXHIBIT  
#1

I/A  
vol 14

Thumb Drive  
Recording of  
Aug. 29<sup>th</sup> meetg  
among AQUA, DEQ,  
Public Staff.

\* Exhibit is a thumb drive  
that is filed in the  
Clerk's office in  
Docket # W-218, sub 497  
vol. 14 -



I/A

**Aqua North Carolina, Inc.**  
 Docket No. W-218, Sub 497  
 Aqua North Carolina, Inc.  
 Public Staff Engineering Data Request No. 13

Requested by: Charles Junis      Email: charles.junis@psncuc.nc.gov  
 Date requested: June 12, 2018      Phone: 919-733-0891  
 Due date: June 26, 2018

Subject of Data Request: Purchased Water

Question 1

For responses in Excel format, please include all working formulas.

- Q. Please provide a detailed explanation for and reconcile the unaccounted for purchased water supplied by the City of Asheville, City of Concord, City of Mount Airy, Davidson Water, Harnett County, Iredell Water, Town of Pittsboro, and Town of Spruce Pines during the test year ending September 30, 2017. Please see the calculated water loss columns on tab Ex\_Hw, col 1-4 of the embedded worksheet.
- A. Overall, Aqua NC has a purchased water loss percentage of 13%. Below are comments about the specific outliers:

**City of Asheville** – this is Twin Creeks in the Denver area. This is a system that has a history of water loss right up until November of 2017. During 2017, the water mains were replaced AND in the last seven months, the water loss percent is down to just 15%.

**City of Concord** – Addressed in Q3 of this EDR. This was a leak detected in Q4 2016 which has been corrected and showing a much lower water loss percentage beginning March 2017.

**City of Mount Airy** - Greenfield. This is an older system that historically is prone to leaks. Five service line leaks have been found and fixed here during 2018.

**Davidson Water** – This system was discussed/analyzed earlier in 2018 when the vendor increased its rates. This is a system that has had loss issues historically. Although still higher than 20%, the numbers have improved since 2013/2014 when the percentage was over 45%.

**Harnett County** - Woodlake. This is one of Aqua's larger purchased water systems and has had a history of leaks.

2015-30%

2016-32%

2017-23%

There is still work to be done/leaks to be detected, but the trend is going in the right direction.

**Iredell Water**- This is for River Hill Heights. During the first six months of the test year there was an issue that cause this system to lose over 40% of their water. SINCE April 2017, however, the loss percentage has been less than 10%. Based on this analysis, this system will have an Item 18 adjustment submitted to normalize the test year volume.

**Town of Pittsboro** – This system has had issues with leaks in the past and more recently Aqua NC has been required to flush fairly large quantities due to TTHM issues with the Town's water. The company is trying to work out a credit from the town related to this flushed water.

**Town of Spruce Pine** - Swiss Pine Lake. This a smaller purchased water system (200K gallons purchased / 150K gallons billed). The company found out that we have an issue of the overhead storage tank overflowing and have taken steps to address this.

Prepared by:  
Dean Gearhart  
Manager, Rates and Planning  
Aqua North Carolina, Inc.

I/A

**Aqua North Carolina, Inc.**  
Docket No. W-218, Sub 497  
Aqua North Carolina, Inc.  
Public Staff Engineering Data Request No. 53

Requested by: Charles Junis      Email: charles.junis@psncuc.nc.gov  
Date requested: August 10, 2018      Phone: 919-733-0891  
Due date: August 15, 2018

Subject of Data Request: Follow-up

Question 3

Q. Pertaining to EDR 10 and EDR 13, please provide an updated "Item 10 NC Prch Water 093017" Excel spreadsheet reconciling the unaccounted water and normalizing the purchased water expense.

A.

Please see attached Excel file titled "**EDR53 Q3 Purchased Water UPDATE.xlsx**".

In this file are four tabs. The first two (in green) are updates to Exhibit B3-b-3 & B3-b-3-a. The second two tabs (in red) are the original tabs. Within the B3-b-3-a UPDATE tab are purchased water vendors that are hi-lited in yellow indicating an update has been made to them.

They are summarized as follows:

- **City of Asheville:** In EDR 13, the company discussed historical water loss issues up until November 2017. On lines 859-893 of the updated B3-b-3-a the volume has been adjusted to reflect purchases since December 2017 – projected for a year. The resulting reduction in purchased water volume results in a **reduction of purchased water expense of \$12,957.37.**
- **City of Concord:** In EDR 13, the company discussed water loss normalizing as of March 2017. On lines 186-201 of the updated B3-b-3-a the volume has been adjusted to reflect purchases for the 12 month period ending February 2018. The resulting reduction in purchased water volume results in a **reduction of purchased water expense of \$15,365.75.**
- **City of Lincolnton:** In EDR 13, the company issues the vendor has had with its meters. Indicating that the company appears to have been undercharged by the City and suggesting that the test year purchased water

volume needed to be adjusted up. On lines 210-230 of the updated B3-b-3-a the volume has been adjusted to reflect purchases for the 12 month period ending 6/30/2018. The resulting increase in purchased water volume results in an increase in purchased water expense of \$4,134.48.

- **City of Mount Airy:** In EDR 13, the company discussed water loss history with this vendor and how some leaks have been fixed in 2018. On lines 626-642 of the updated B3-b-3-a the volume has been adjusted to reflect purchases for the 12 month period ending 6/30/2018. The resulting reduction in purchased water volume results in a reduction of purchased water expense of \$3,171.90.
- **Iredell Water Corp:** In EDR 13, the company discussed water loss issues during the first 6 months of the test year. On lines 490-505 of the updated B3-b-3-a the volume has been adjusted to reflect purchases for the 12 month period ending March 2018. The resulting reduction in purchased water volume results in a reduction of purchased water expense of \$185.28.
- **Town of Spruce Pine:** In EDR 13, the company discussed water loss issues due to an overhead storage tank. On lines 524-558 of the updated B3-b-3-a the volume has been adjusted to reflect purchases for the 12 month period ending 6/30/2018. The resulting reduction in purchased water volume results in a reduction of purchased water expense of \$629.95.
- **Johnston County:** As of July 1, 2018, the bulk water commodity rate being charges by Johnston County has increased from \$2.28 per 1,000 gallons to \$2.40 per 1,000 gallons. On lines 352-459 of the updated B3-b-3-a, the price has been adjusted to reflect this increase. The resulting increase in price results in an increase in purchased water expense of \$21,905.24. The letter from Johnston County announcing the price increase is attached as "EDR53 Q3 Johnston County Price Increase.pdf"

The net impact of all of these adjustments is a decrease to purchased water expense of \$6,270.54. This is summarized in the Exhibit B3-b-3 UPDATE schedule on the first tab of the Excel file.

Prepared by:  
Dean Gearhart  
Manager, Rates and Planning  
Aqua North Carolina, Inc.

I/A

**Aqua North Carolina, Inc.**  
Docket No. W-218, Sub 497  
Aqua North Carolina, Inc.  
Public Staff Engineering Data Request No. 58

Requested by: Charles Junis      Email: charles.junis@psncuc.nc.gov  
Date requested: September 5, 2018      Phone: 919-733-0891  
Due date: ASAP

Subject of Data Request: Rebuttal Berger

Question 4

- Q. On page 5, lines 12-17, please provide a table of the 12-month rolling average of unaccounted for water (UAW) during the 3 year period ending June 2018, the dates, duration, and quantity of water flushed during the 3 year period ending June 2018, and the Company's estimate of the necessary frequency and quantity of flushing on an ongoing annual basis.
- A. Due to the timeline to satisfy this request, the Company is unable to provide historical data at this time. The Company cannot provide an accurate estimate of the amount of flushing required in the future. The flushing volume will be determined based on levels of Disinfectant By-Products found in the source (purchased) water and our efforts to resolve this issue with the purveyor.

Prepared by:  
Amanda Berger  
Manager, Environmental Compliance

**Aqua North Carolina, Inc.**  
Docket No. W-218, Sub 497  
Aqua North Carolina, Inc.  
Public Staff Engineering Data Request No. 58

Requested by: Charles Junis      Email: charles.junis@psncuc.nc.gov  
Date requested: September 5, 2018      Phone: 919-733-0891  
Due date: ASAP

Subject of Data Request: Rebuttal Berger

Question 3

- Q. On page 5, lines 8-11, please provide a table of the 12-month rolling average of unaccounted for water (UAW) during the 3 year period ending June 2018, the dates, duration, and quantity of water flushed during the 3 year period ending June 2018, and the Company's estimate of the necessary frequency and quantity of flushing on an ongoing annual basis.
- A. Due to the timeline to satisfy this request, the Company is unable to provide historical data at this time. The Company cannot provide an accurate estimate of the amount of flushing required in the near future. The flushing volume will be determined based on levels of Disinfectant By-Products found in the source (purchased) water and our efforts to resolve this issue with the purveyor.

Prepared by:  
Amanda Berger  
Manager, Environmental Compliance

**Aqua North Carolina, Inc.**  
Docket No. W-218, Sub 497  
Aqua North Carolina, Inc.  
Public Staff Engineering Data Request No. 58

Requested by: Charles Junis      Email: charles.junis@psncuc.nc.gov  
Date requested: September 5, 2018      Phone: 919-733-0891  
Due date: ASAP

Subject of Data Request: Rebuttal Berger

Question 5

- Q. On page 5, line 18, through page 6, line 7, please provide a table of the 12-month rolling average of unaccounted for water (UAW) during the 3 year period ending June 2018, the Company's evaluation, including workpapers, supporting the statement that "non-revenue water loss has dropped since undertaking these efforts", the dates, duration, and quantity of water flushed during the 3 year period ending June 2018, and the Company's estimate of the necessary frequency and quantity of flushing on an ongoing annual basis.
- A. Due to the timeline regarding this request, the information that is readily available is provided as Exhibit 1. Exhibit 2 includes the list of leaks repaired between 2014 and 2016, including costs incurred that total \$1,007,694.01.

Prepared by:  
Amanda Berger  
Manager, Environmental Compliance



AQUA NORTH CAROLINA, INC.  
DOCKET NO. W-218, SUB 497  
AQUA NORTH CAROLINA, INC.  
PUBLIC STAFF ENGINEERING DATA REQUEST NO. 58

Requested by: Charles Junis Email: Charles.junis@psncuc.nc.gov  
Date requested: September 5, 2018 Phone: 919-733-0981  
Date due: September 7, 2018

Subject of Data Request: Rebuttal Berger

Question 7

Q. On page 6, line 17, through page 7, line 13, please provide the dates that leaks were identified, the dates the repairs to the leaks were completed, a table of the 12-month rolling average of unaccounted for water (UAW) during the 3 year period ending June 2018, the Company's 2017 "internal process" evaluation, including workpapers, the dates, duration, and quantity of water flushed during the 3 year period ending June 2018, and the Company's estimate of the necessary frequency and quantity of flushing on an ongoing annual basis. In addition, please provide the Company's plan of action to resolve the DBPs going forward.

A. 2017 Chapel Ridge Leaks –

1. 441 Parks Drive – Hydrant Leak – Identified 1/19/2017, Repaired 1-25-2017
2. 369 Autumn Chase – Water Service Leak – Identified 1/26/2017, Repaired 1/26/2017
3. 106 Autumn Chase – Water Service Leak – Identified 2/2/2017, Repaired 2/21/2017
4. 99 Golfers View – Water Service Leak – Identified 2/21/2017, Repaired 2/21/2017
5. 382 Autumn Chase – Water Service Leak – Identified 3/22/2017, Repaired 3/22/2017
6. Chapel Ridge Lift Station #3 – Massive Water Service Break – Identified on 6/2/2017, Repaired 6/2/2017 (Created massive pond in unoccupied area)
7. 424 Autumn Chase – Water Line Break – Identified 6/20/2017, Repaired 6/20/2017 – This is the same as the 6/28/2017. I believe the bill was paid on 6/28 but the break was on 6/20
8. 170 N Parkside Drive – Water Main Break – Identified 8/9/2017, Repaired 8/9/2017
9. September 2017 leak found and fixed at booster station
10. October 2017 – Valve found half open to old development that has compromised infrastructure

Available data for UAW was provided to Public Staff in EDR 13 Q1.  
Communication regarding the Company's future plans are attached.

Prepared by:  
Amanda Berger  
Manager, Environmental Compliance

I/A

**Aqua-North Carolina, Inc.**

Docket No. W-218, Sub 497

Aqua North Carolina, Inc.

Public Staff Engineering Data Request No. 58

Requested by: Charles Junis Email: charles.junis@psncuc.nc.gov  
Date requested: September 5, 2018 Phone: 919-733-0891  
Due date: ASAP

Subject of Data Request: Rebuttal Berger

Question 10

- Q. On page 16, lines 24-26, please provide the separate amounts designated as compliance and operational testing for each year. Please include work papers supporting the amounts. In addition, please provide the separate amount designated as compliance and operational testing for the test year ending September 30, 2017 and for the 12-month period from July 1, 2017 through June 30, 2018 by rate entity (ANC Water, Brookwood, and Fairways). Please exclude Aqua's update NOD testing which is a separate issue.
- A. Based on the timeline provided for this request, the only available work paper we have at our disposal is attached and labeled Special & Compliance. It is an accounting of special and compliance samples for which a work order was assigned. Please note, work orders are not assigned for all compliance or operational testing.

Prepared by:  
Amanda Berger  
Manager, Environmental Compliance

I/A

Excerpts from Amanda Berger's Recording of the August 29, 2018 Secondary Water Quality Meeting between Aqua, the Public Staff, and the DEQ Public Water Supply Section (PWSS)

**Excerpt 1:** 1:15:34 – 1:16:05

Bob Midgette (PWSS) "We are looking for a rational basis to be explained in the responses to the Notice of Deficiency and for it to - - so that each response should be a - - a growing explanation of what has taken place to resolve the situation and an explanation of future steps. And that explanation of future steps, we [PWSS] fully expect it will be Aqua's recommendation as to what the future monitoring should be."

**Excerpt 2:** 1:37:47 – 1:38:31

Amanda Berger (Aqua) "I think what we need to do is look at it from an operational perspective, like Bob [Midgette] is saying, and as - - as we go through each one of these, where we see - - we see the trend we - - or we realize we have got enough [samples/data], we propose it [frequency schedule]."

Bob Midgette (PWSS) "But as a - - as a generalized statement, I think that makes sense to me, to continue monthly through September, with a - - in general, I would like for planning or budgetary purposes, I would anticipate then quarterly for the next year, and then we'll see after that, I mean maybe you [Aqua] could start going just - - if I - - if I looked at the data and it supported that I could see proposing, I'm [Aqua] going to do it annually."

I/A  
vol. 14



\*Exhibit is a  
CD that is  
filed in the  
Clerk's office  
in Docket #  
W-218, Sub 497  
vol. 14

Public Staff Berger Rebuttal  
Cross Exam Exhibit 6

Agua Becker Rebuttal  
Rebuttal Exhibit 1  
I/A

To: Bill Grantmyre

From: Susan Wilburn

Date: August 6, 2004

Re: Water and Wastewater Agreements  
Flowers Plantation Sections I, II and IIIB  
Buffaloe Creek Side

Heater's total cost and the way it was distributed is as follows:

Billed to Becky Flowers	440,816
Heater's 1/2 not billed	440,816
Heater's investment	75,000
Capitalized interest	29,618
Other payroll and overheads	41,083
Total	<u><u>1,027,333</u></u>

See attached schedule for very detailed breakdown