1	PLACE: Dobbs Building, Raleigh, North Carolina
2	DATE: Tuesday, September 18, 2018
3	TIME: 3:55 p.m 5:30 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
LO	Commissioner Daniel G. Clodfelter
11	Commissioner Charlotte A. Mitchell
L2	
L3	IN THE MATTER OF:
L3 L4	IN THE MATTER OF:  Application by Aqua North Carolina, Inc.,
14	Application by Aqua North Carolina, Inc.,
14 15	Application by Aqua North Carolina, Inc., 202 MacKenan Court, Cary, North Carolina 27511,
14 15 16	Application by Aqua North Carolina, Inc., 202 MacKenan Court, Cary, North Carolina 27511, for Authority to Adjust and Increase Rates
14 15 16	Application by Aqua North Carolina, Inc.,  202 MacKenan Court, Cary, North Carolina 27511,  for Authority to Adjust and Increase Rates  for Water and Sewer Utility Service in
14 15 16 17	Application by Aqua North Carolina, Inc.,  202 MacKenan Court, Cary, North Carolina 27511,  for Authority to Adjust and Increase Rates  for Water and Sewer Utility Service in
14 15 16 17	Application by Aqua North Carolina, Inc.,  202 MacKenan Court, Cary, North Carolina 27511,  for Authority to Adjust and Increase Rates  for Water and Sewer Utility Service in  All Service Areas in North Carolina.
14 15 16 17 18	Application by Aqua North Carolina, Inc.,  202 MacKenan Court, Cary, North Carolina 27511,  for Authority to Adjust and Increase Rates  for Water and Sewer Utility Service in  All Service Areas in North Carolina.
14 15 16 17 18 19 20	Application by Aqua North Carolina, Inc.,  202 MacKenan Court, Cary, North Carolina 27511,  for Authority to Adjust and Increase Rates  for Water and Sewer Utility Service in  All Service Areas in North Carolina.

I	APPEARANCES:
2	FOR AQUA NORTH CAROLINA, INC.:
3	Jo Anne Sanford, Esq.
4	Sanford Law Office, PLLC
5	Post Office Box 28085
6	Raleigh, North Carolina 27611-8085
7	
8	Robert H. Bennink, Jr., Esq.
9	Bennink Law Office
10	130 Murphy Drive
11	Cary, North Carolina 27513
12	
13	Dwight Allen, Esq.
14	Britton Allen, Esq.
15	Brady Allen, Esq.
16	Allen Law Offices, PLLC
17	1514 Glenwood Avenue, Suite 200
18	Raleigh, North Carolina 27612
19	
20	
21	
22	
23	
24	

1	APPEARANCES Cont'd.:
2	FOR THE USING AND CONSUMING PUBLIC:
3	Teresa Townsend, Esq.
4	Special Deputy Attorney General
5	Margaret Force, Esq.
6	Assistant Attorney General
7	North Carolina Department of Justice
8	Post Office Box 629
9	Raleigh, North Carolina 27602
10	
11	Elizabeth D. Culpepper, Esq.
12	William E. Grantmyre, Esq.
13	Megan Jost, Esq.
14	Public Staff - North Carolina Utilities Commission
15	4326 Mail Service Center
16	Raleigh, North Carolina 27699-4300
17	
18	
19	
20	
21	
22	
23	
24	

TABLE OF CONTENTS
EXAMINATIONS:
WINDLEY E. HENRY and MANASA L. COOPER, as a panel
Continued Examination by Ms. Culpepper 6
Examination by Mr. Bennink
Further Examination by Ms. Culpepper 11
LINDSAY DARDEN
Direct Examination by Ms. Jost
Cross Examination by Mr. Britton Allen 32
Redirect Examination by Ms. Jost 46
Examination by Commissioner Mitchell 51
Examination by Mr. Britton Allen 55
CHARLES JUNIS
Direct Examination by Mr. Grantmyre 58
Cross Examination by Ms. Force 64
Cross Examination by Mr. Dwight Allen 70

1	EXHIBITS
2	IDENTIFIED / ADMITTED
3	Public Staff Henry Redirect
4	Exhibit 1 6/8
5	Henry Additional Direct Partial
6	Settlement to Agreement 1/9
7	Public Staff Darden Exhibits 1 - 5 31/31
8	Aqua-Darden Cross Examination
9	Exhibit 1 40/57
10	Public Staff Darden Redirect Exam
11	Exhibit 1 47/57
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	

#### PROCEEDINGS

COMMISSIONER BROWN-BLAND: We'll come back on the record. Ms. Culpepper, you're already on redirect, I believe.

MS. CULPEPPER: We have just handed out an exhibit that has been premarked Public Staff Henry Redirect Exhibit 1.

COMMISSIONER BROWN-BLAND: It will be so identified.

(WHEREUPON, Public Staff Henry Redirect Exhibit 1 is marked for identification.)

#### CONTINUED EXAMINATION BY MS. CULPEPPER:

- Q Mr. Henry, this is a four-page document. The first page is Duke Energy Progress, LLC, Docket
  No. E-2, Sub 1142. It's a detailed narrative of the adjustment they made in their rate case --
- A Yes.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

- 19 Q -- when they filed it --
- 20 A Yes.
- 21 Q -- is that correct?
- 22 A Yes, that is correct.
- 23 Q Page 2 is the detailed work paper related to
- 24 that?

- 1 A Yes, it is.
- 2 Q Page 3 is the filing that Duke Energy Carolinas
- made in their rate case, Docket No. E-7, Sub
- 4 1146, with the adjustment they made, the detailed
- 5 narrative and also the detailed -- the work
- 6 papers which is on page 4 of this exhibit; is
- 7 that correct?
- 8 A Yes, it is. That is correct.
- 9 Q When each of these Companies filed, is it correct
- 10 that they made an adjustment to eliminate
- 50 percent of the compensation of their four --
- of four executives with the highest level of
- 13 | compensation?
- 14 A That is correct.
- 15 Q In DEC's case we also took out, both of the cases
- 16 actually, we took out another executive, the
- 17 chief legal officer, so that it was the top five
- executives with 50 percent of their compensation;
- 19 is that correct?
- 20 A That is correct.
- 21 | Q And then subsequent to that, the Companies in
- 22 each the cases the Company and the Public Staff
- 23 stipulated to this adjustment, 50 percent of the
- 24 top five?

1	A Yes, that's correct.			
2	Q Is that correct? And their benefits?			
3	A That's correct; yes, ma'am.			
4	Q Is it your understanding that Duke Energy			
5	Progress and Duke Energy Carolinas removed	d these		
6	expenses in recognition of the work done	on		
7	behalf of shareholders not customers?			
8	A Yes, I am aware of that.			
9	Q Is this adjustment in agreement with the	Public		
10	Staff's principled position that work and			
11	loyalties are divided between shareholders	s and		
12	customers?			
13	A That's correct.			
14	MS. CULPEPPER: That's all I have.			
15	COMMISSIONER BROWN-BLAND: All right			
16	MS. CULPEPPER: We would ask to move	the		
17	admission of this exhibit Public Staff Henry Re	edirect		
18	Exhibit 1.			
19	COMMISSIONER BROWN-BLAND: That motion	on will		
20	be allowed and that Exhibit will be received in	nto		
21	evidence.			
22	(WHEREUPON, Public Staff Ho	enry		
23	Redirect Exhibit 1 is admit	tted		
24	into evidence.)			

1.	MS. CULPEPPER: I believe we moved the				
2	stipulation into evidence but, if we did not, we				
3	request we would move that into evidence.				
4	COMMISSIONER BROWN-BLAND: That Exhibit				
5	which we identified as Henry Additional Direct Partial				
6	Settlement to Agreement 1, that will be received into				
7	evidence if it wasn't, out of an abundance of caution.				
8	(WHEREUPON, Henry Additional				
9	Direct Partial Settlement				
10	Agreement 1 is admitted into				
11	evidence.)				
12	COMMISSIONER BROWN-BLAND: And I believe				
13	that's all for these witnesses.				
14	MS. CULPEPPER: Yes, ma'am.				
15	MR. BENNINK: May I ask a question based on				
16	the Public Staff's Exhibits, just briefly?				
17	COMMISSIONER BROWN-BLAND: This was on a				
18	Redirect Exhibit so I think not.				
19	MR. BENNINK: Well, I mean, it wasn't used				
20	on redirect.				
21	MS. CULPEPPER: It was used on Commission				
22	questions.				
23	MR. BENNINK: Right.				
24	COMMISSIONER BROWN-BLAND: It was questions				

```
1
    on Commission questions. You didn't ask questions on
 2
     the Commission's questions, did you?
 3
               MR. BENNINK: No, I didn't but then this
    Exhibit came in.
 4
 5
               COMMISSIONER BROWN-BLAND: Quickly.
 6
               MR. BENNINK: All right.
 7
    EXAMINATION BY MR. BENNINK:
          Mr. Henry, can you tell us or provide as a
 8
          late-filed exhibit how does the size of Duke
 9
10
          Energy Progress and Duke Energy Carolinas compare
11
          to Aqua?
12
          They are quite larger than Aqua.
13
          Can you --
               MS. CULPEPPER: I believe the Commission
14
15
    requests late-filed exhibits, not a party.
16
               MR. BENNINK:
                             That's fine.
17
    BY MR. BENNINK:
18
          Can you tell us how the compensation of the Duke
          Energy executives compare to the compensation of
19
20
          the Aqua executives?
21
         No, I can't tell you that.
22
               MR. BENNINK: All right.
                                          Thank you.
23
               MS. CULPEPPER: May I ask a question based
24
    on his questions?
```

1	COMMISSIONER BROWN-BLAND: I will because I				
2	allowed that. Go ahead.				
3	FURTHER EXAMINATION BY MS. CULPEPPER:				
4	Q Mr. Henry, is the Public Staff's principled				
5	position the same irregardless of the size of the				
6	Company?				
7	A That's correct.				
8	MS. CULPEPPER: Thank you.				
9	COMMISSIONER BROWN-BLAND: All right.				
10	Witnesses, you're excused.				
11	(The witnesses are excused)				
12	MS. JOST: The Public Staff calls witness				
13	Lindsay Darden.				
14	LINDSAY DARDEN;				
15	having been duly sworn,				
16	testified as follows:				
17	COMMISSIONER BROWN-BLAND: You may be				
18	seated. Pull the microphone up close.				
19	DIRECT EXAMINATION BY MS. JOST:				
20	Q Good afternoon, Ms. Darden. Could you please				
21	state your name, business address and current				
22	position for the record?				
23	A My name is Lindsay Darden. My business address				
24	is 430 North Salisbury Street, Raleigh, North				

1	Carolina, and I'm a Utilities Engineer with the	
2	Water, Sewer and Telephone Division of the Public	
3	Staff.	
4	Q On August 21, 2018, did you prepare and cause to	
5	be filed in this docket direct testimony	
6	consisting of 14 pages and five exhibits?	
7	A Yes, I did.	
8	Q Do you have any corrections to that testimony?	
9	A I do have one correction on page 11 of my	
10	testimony, it's line 15, the word "test" should	
11	be replaced with the words "two-year". So that	
12	the end of the sentence appearing on line 15	
13	reads, "a level closer to the two-year average in	
14	June 2018".	
15	Q With the exception of that correction, if you	
16	were asked the same questions today, would your	
17	answers be the same?	
18	A Yes, they would.	
19	MS. JOST: I move that the prefiled direct	
20	testimony of Ms. Darden be copied into record as if	
21	given orally from the stand.	
22	BY MS. JOST:	
23	Q Do you have a summary?	
24	COMMISSIONER BROWN-BLAND: The motion is	

```
allowed.
 1
               MS. JOST: Oh, I'm sorry.
 2
 3
                           (WHEREUPON, the prefiled direct
                          testimony of LINDSAY DARDEN, as
 4
                          corrected, is copied into the
 5
                          record as if given orally from the
 6
 7
                          stand.)
 8
 9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
```

# BEFORE THE NORTH CAROLINA UTILITIES COMMISSION DOCKET NO. W-218, SUB 497

In the Matter of Application of Aqua North Carolina, Inc., 202 MacKenan Court, Cary, North Carolina, 27511, for Authority to Adjust and Increase Rates for Water and Sewer Utility Service in All Service Areas in North Carolina

TESTIMONY OF
LINDSAY DARDEN
PUBLIC STAFF – NORTH
CAROLINA UTILITIES
COMMISSION

# AQUA NORTH CAROLINA, INC. DOCKET NO. W-218, SUB 497

## TESTIMONY OF LINDSAY DARDEN ON BEHALF OF THE PUBLIC STAFF NORTH CAROLINA UTILITIES COMMISSION

### **AUGUST 21, 2018**

1	Q.	PLEASE STATE FOR THE RECORD YOUR NAME, BUSINESS
2		ADDRESS, AND PRESENT POSITION.
3	A.	My name is Lindsay Darden. My business address is 430 North
4		Salisbury Street, Dobbs Building, Raleigh, North Carolina. I am a
5		Utilities Engineer with the Water, Sewer & Telephone Division of the
6		Public Staff – North Carolina Utilities Commission (Public Staff).
7	Q.	BRIEFLY STATE YOUR QUALIFICATIONS AND EXPERIENCE
8		RELATING TO YOUR PRESENT POSITION WITH THE PUBLIC
9		STAFF.
10	A.	I graduated from North Carolina State University, earning a Bachelo
11		of Science Degree in Civil Engineering. I am a licensed Professiona
12		Engineer (PE - State of North Carolina #042110). I am also certified
13		as a B-Well Operator (#130281) by the North Carolina Water
14		Treatment Facility Operators Certification Board. I worked for the
15		North Carolina Department of Environmental Quality (DEQ), Public
16		Water Supply Section for four years prior to joining the Public Staff in
17		December 2016. While employed by the Public Staff I have presented

recommendations in water/wastewater rate proceedings, new

- franchise applications, and other matters relating to water, wastewater, and telephone utility regulation before the Commission.
- 3 Q. WHAT ARE YOUR DUTIES IN YOUR PRESENT POSITION?
- A. My duties with the Public Staff are to monitor the operations of regulated water and wastewater utilities with regard to rates and service. Included in these duties are conducting field investigations to review, evaluate, and recommend changes in the design, construction, and operations of regulated water and wastewater utilities; presentation of expert testimony in formal hearings; and presentation of information, data, and recommendations to the Commission.
- 11 Q. PLEASE DESCRIBE THE SCOPE OF YOUR INVESTIGATION IN
  12 THIS CASE.

Α.

On March 7, 2018, Aqua North Carolina, Inc. (Aqua or Company) filed an application with the Commission seeking authority to increase its rates for providing water and wastewater utility service in all of its service areas in North Carolina. My areas of investigation in this proceeding have been the review of Company records and assisting in the review of customer complaints and DEQ records. I have also assisted the Public Staff Accounting Division in reviewing expenses and I accompanied Public Staff Engineer Charles Junis on several site inspections.

1	Q.	HAVE YOU RECOMMENDED ANY ADJUSTMENTS TO					
2		EXPENSES RELATED TO WATER AND WASTEWATER					
3		OPERATIONS?					
4	A.	Yes, I have provided Public Staff Accountants Windley Henry and					

Manasa Cooper with recommendations for adjustments to expenses related to contractual services — lab testing, testing updates, purchased power, chemicals, sludge hauling, and purchased wastewater.

#### CONTRACTUAL SERVICES – LAB TESTING EXPENSES

I reviewed Aqua's water and wastewater testing expenses. In calculating water testing expenses, Aqua used the test year per books expense levels and made pro forma adjustments based on 2015-2017 data and testing projections for 2018. Aqua's filed pro forma totals are as follows:

15		Per Books	Pro forma	<u>Expense</u>
16	Aqua NC Water	\$ 640,240	\$ 15,363	\$ 655,603
17	Brookwood Water	\$ 61,928		\$ 61,928
18	Fairways Water	\$ 20,417	(\$ 4,845)	\$ 15,572
19	Aqua NC Sewer	\$ 221,947		\$ 221,947
20	Fairways Sewer	\$ 16,098		\$ 16,098

I do not agree with the Company's use of per books amounts or the manner in which the Company calculated pro forma adjustments. The Company's calculations do not account for the variation in the

frequency with which specific water quality tests must be performed. For example, several of the tests are conducted at a frequency of once every three, six, or nine years and should be annualized over the 4 corresponding number of years.

1

2

3

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

The types of tests that must be performed and the testing frequency are determined by DEQ compliance standards for the Safe Drinking Water Act for each water system and by DEQ wastewater permits for each wastewater system. Agua provided the Public Staff with the compliance frequency schedule for each water and wastewater system. Using this information, I calculated the lab testing expense as the Public Staff traditionally has, using current testing schedules going forward, amortizing the expense over the number of years corresponding to the testing frequencies for the various tests, and using the current unit costs for the tests.

For the wastewater testing expense, Aqua added a 5% increase to the total amount as an incidental cost. I removed this cost to accurately reflect the actual amount spent on testing. I also removed the testing costs associated with the Dolphin Bay WWTP from the Fairways Sewer rate entity because the WWTP was retired in March 2017. In addition to the two adjustments described above, I added to the Aqua North Carolina rate entity the annual cost of testing for the WWTPs at The Legacy and Westfall, which started operations in 2018, post-test year.

Based on my review, I recommend the following water and wastewater testing expenses:

3			Public Staff	
4		Per Books	<u>Adjustment</u>	Expense
5	Aqua NC Water	\$655,603	(\$90,737)	\$564,866
6	Brookwood Water	\$ 61,928	(\$19,552)	\$ 42,376
7	Fairways Water	\$ 15,572	(\$5,407)	\$ 10,165
8	Aqua NC Sewer	\$ 221,947	\$29,364	\$ 251,311
9	Fairways Sewer	\$ 16,098	(\$2,070)	\$ 14,028

My calculations are shown in Darden Exhibits 1 and 2.

#### **TESTING UPDATE EXPENSE**

Aqua filed an updated testing expense for a post-test year sampling program in the Aqua NC Central/Cary area. DEQ issued Notices of Deficiency (NODs) for approximately 50 systems in the Aqua NC Central/Cary region. Subsequently, the DEQ Public Water Supply Section (PWSS) and Aqua collaborated to set short-term sampling schedules for the sites that were issued NODs. Pursuant to the sampling schedule, Aqua was to sample raw well water, entry point, and one location within the distribution system for total, soluble, and dissolved iron and manganese. Once the water quality has been addressed, Aqua may submit to PWSS a request to stop or reduce the sampling. Aqua has submitted multiple requests to PWSS, but has been approved to stop sampling at only one site thus far.

For the remaining sites, PWSS requested that Aqua continue sampling until the third quarter of this year (through September 2018), after which the sampling frequency at all sites will be reevaluated. The Public Staff has discussed this on-going issue with Aqua and PWSS on numerous occasions and will continue to communicate with the parties.

I have reviewed the sampling schedule and testing invoices Aqua provided for the time period of January 2018 through June 2018. Some tests included in the sampling schedule were for compliance and/or National Pollutant Discharge Elimination System (NPDES) site testing. The compliance and NPDES site testing was included in Aqua's testing expense and was, therefore, removed from the testing update. Aqua stated that its post-test year testing cost was \$55,769. Aqua arrived at this figure by annualizing the additional testing expense and accounting for a decrease in the price of testing which took effect in April 2018.

The Public Staff does not agree with annualizing the testing costs for the period of January 2018 through June 2018. The total sampling cost incurred in the post-test year is not an on-going expense. PWSS may reduce sampling frequencies drastically after September 2018, when the third quarter sampling has been completed, and/or approve Aqua's previous or future requests to stop sampling. Furthermore, once treatment projects are completed for each

system, the sampling schedule will be reduced or ended. For these reasons, Aqua's sampling requirements and the associated costs are likely to decrease in the near future. Therefore, annualizing testing costs for the period from January 2018 through June 2018 would artificially inflate the future projection and result in the recovery of testing costs that may not be incurred. Once the sampling schedules for the NOD sites are established by PWSS and Aqua, the associated expenses can be updated in future rate cases to reflect the actual testing requirements.

I calculated the total cost of testing from January 2018 to June of 2018 to be \$58,278. In arriving at this figure, I applied the decrease in the price of testing which took effect in April 2018 only over the period of April 2018 through June 2018. The total cost of testing from January 2018 to June of 2018 in the amount of \$58,278 will be added by Public Staff witness Cooper to the testing expense category as a sub-category for NOD site testing.

For ratemaking purposes, the total NOD site testing expense will be averaged and recovered over three years. Accordingly, I recommend that \$19,426 be added as a sub-category to the testing expense. My calculations are shown in **Darden Exhibit 3**.

#### PURCHASED POWER EXPENSE

I reviewed Aqua's purchased power expenses for both water and wastewater operations. Aqua's purchased power records and Aqua's total per books purchased power expenses appear to be accurate, with the exception of the Duke Energy pro forma adjustment. Aqua applied a 10.8% increase to Duke Energy accounts due to the Duke Energy Progress (DEP) and the Duke Energy Carolinas (DEC) rate cases that were pending before the Commission at the time Aqua filed its rate case application. Aqua stated pro forma totals for Accruals and Duke Energy as follows:

11					Public Staff
12		Per Books	Pro forma	Pro forma	Recommended
13			<u>Accruals</u>	Duke Energy	Expense
14	Aqua NC Sewer	\$1,028,177	\$4,578	\$39,944	\$1,072,699
15	Aqua NC Water	\$2,119,515	\$18,336	\$106,875	\$2,244,725
16	Brookwood Water	\$228,928	(\$14,211)	\$544	\$215,261
17	Fairways Sewer	\$90,493	(\$6,944)	\$8,867	\$92,416
18	Fairways Water	\$61,655	(\$5,183)	\$5,867	\$62,340

When the DEP and DEC rate cases were finalized, Aqua updated the Duke Energy pro forma adjustment to reflect a 4.7% increase to both its DEP and its DEC accounts, citing the Notice to Customers for Docket No. E-2, Sub 1142, the DEP rate case.

Aqua's update to the Duke Energy pro forma adjustment is not appropriate because the 4.7% increase proposed by Aqua is only associated with the North Carolina Retail Tariff Revenue rate class for DEP accounts. While Aqua was unable to provide the Public Staff with the rate class records for all its power accounts, Aqua did confirm that the majority of its power accounts are Small General Service (SGS) rate class accounts. Listed below are the increase/decrease percentages for the SGS rate class stated in the tariffs approved in the DEP and DEC rate cases.

10	NCUC Docket No.	Company	SGS Increase/Decrease (%)
11	E-2, Sub 1142	DEP	5.1%
12	E-7, Sub 1146	DEC	-3.2%

The Public Staff and Aqua have agreed to the above percentages. The percentages were applied to the DEP and DEC accounts, and the Duke Energy adjustment was corrected. The resulting expense levels recommended by the Public Staff are as follows:

17					Public Staff
18		Per Books	Pro forma	Pro forma	Recommended
19			<u>Accruals</u>	Duke Energy	<u>Expense</u>
20	Aqua NC Sewer	\$1,028,177	\$4,578	\$11,164	\$1,043,919
21	Aqua NC Water	\$2,119,515	\$18,336	\$26,359	\$2,164,209
22	Brookwood Water	\$228,928	(\$14,211)	\$279	\$214,996
23	Fairways Sewer	\$90,493	(\$6,944)	\$4,541	\$88,090
24	Fairways Water	\$61,655	(\$5,183)	\$2,981	\$59,453

My calculations are shown in **Darden Exhibit 4**. Any necessary adjustments for growth and consumption are being made by Public Staff witness Henry.

#### **SLUDGE EXPENSE**

I have reviewed the historical sludge hauling quantities and expenses provided by Aqua. In its sludge expense update submitted to the Public Staff on July 20, 2018, Aqua stated that, "Beginning late in the test year, operational changes have been made in the Aqua NC Central area to reduce sludge inventory." Following the test year, Aqua increased sludge hauling rates at several WWTPs. Overall, the data provided by the Company shows an increase in the quantity of sludge hauled in the post-test year period from January 2018 through June 2018 as compared to the test year, with more significant increases in March, April, and May 2018, and a return to a level closer to the test year average in June 2018. See Darden Exhibit 5.

When sludge storage approaches full capacity, compliance and operational issues can arise. An increase in hauling would be necessary to decrease the amount of sludge. However, once the sludge volume is decreased, the hauling frequency may return to regular maintenance levels. Given the limited timeframe over which the increased sludge hauling occurred, it is unclear whether Aqua's

1	post-test year increase in hauling rep	resents a peak due to the
2	Company's efforts to catch up on sludge	inventory at plants or trend.
3	In order to account for this uncertainty,	the Public Staff used a two-
4	year average of sludge hauling records,	from July 2016 through June
5	2018. The use of a two-year average f	actors in both the increased
6	hauling in March 2018 through May 2	2018 and the maintenance
7	hauling during the remainder of the pe	riod and avoids annualizing
8	what is potentially an isolated peak in ha	auling levels and not a long-
9	term trend.	
10	Two WWTPs, The Legacy WWTP ar	nd Westfall WWTP, started
11	producing sludge in 2018. The expecte	ed sludge hauling quantities
12	for these two plants were annualize	d based on the available
13	historical data. This annualized amount	was then added to the two-
14	year average amount for the Cary region	n in the Aqua NC Sewer rate
15	entity.	
16	Based on the analysis, I recommend the	following sludge expenses:
17		Total Expense
18	Aqua NC Sewer	\$470,173
19	Fairways Sewer	\$89,209
20	My calculations are shown in <b>Darden E</b>	xhibit 5.

### CHEMICALS EXPENSE

I reviewed Aqua's expenses for chemicals for both its water and wastewater operations. My review of Aqua's chemical records revealed a discrepancy between Aqua's records and its book totals. When asked to clarify the discrepancy in Public Staff Engineering Data Request No. 14, Aqua provided additional invoices that were included on the books, but were missing from the records. These invoices were reviewed and added to the record amount, and the total expense amount was updated. The expense amounts were also adjusted to reflect the latest pricing provided by the chemical vendors, including an update to the July 2018 pricing from Water Guard for 25% Sodium Hydroxide (Caustic), Sodium Aluminate, and OP37-Bulk.

The following totals, which include the additional invoices and the current pricing adjustments, were provided by Aqua and agreed to by the Public Staff:

Takal Europea

10		Total Expense
17	Aqua NC Water	\$467,003
18	Aqua NC Sewer	\$589,467
19	Brookwood Water	\$333,327
20	Fairways Water	\$20,977
21	Fairways Sewer	\$111,193

Any necessary adjustments for growth and consumption are being made by Public Staff witness Henry.

1		PURCHASED WASTEWATER T	REATMENT EXPENSE
2		I reviewed Aqua's expenses for purcha	sed wastewater treatment for
3		wastewater operations. Based on my	review of Aqua's purchased
4		wastewater treatment expense record	ds, Aqua's total per books
5		purchased wastewater treatment exper	nses appear to be accurate.
6		Aqua stated test year purchased waste	water treatment expenses as
7		follows:	
8			Total Expense
9		Aqua NC Sewer	\$440,871
10		Fairways Sewer	\$1,572
11	Q.	DOES THIS CONCLUDE YOUR TEST	IMONY?

Yes, it does.

```
BY MS. JOST:
 1
 2
          Do you have a summary of your testimony?
 3
     Α
          Yes.
          Would you please read it?
 4
 5
     Α
          Yes.
                           (WHEREUPON, the summary of LINDSAY
 6
 7
                           DARDEN is copied into the record.)
 8
 9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
```

# Summary of the Direct Testimony of Lindsay Darden Docket No. W-218, Sub 497

The purpose of my testimony is to present to the Commission the Public Staff's positions on the following issues:

- Lab testing expenses for water and wastewater;
- Testing update expense;
- Purchased power expense;
- Sludge expense;
- Chemicals expense; and
- Purchased wastewater expense

The Public Staff and Aqua have reached agreement on purchased power expense, chemicals expense, and purchased wastewater expense. These areas of agreement are reflected in a filing that was made by the Public Staff.

Regarding testing expense, Aqua provided the Public Staff with the schedules establishing the required compliance testing frequency for each of Aqua's water and wastewater systems. Using this information, I calculated the lab testing expense as the Public Staff traditionally has, using current testing schedules going forward, amortizing the expense over the number of years corresponding to the testing frequencies for the various tests, and using the current unit costs for the tests.

For the wastewater testing expense, I removed the increase that Aqua included for incidental costs. I also adjusted the testing costs associated with retired and newly operational wastewater treatment plants.

Aqua filed updated testing expenses for a post-test year sampling period associated with the 50 notices of deficiency or NODs issued in the Central/Cary region. Aqua and the North Carolina Department of Environmental Quality Public Water Supply Section are still in the process of establishing the sampling schedule which will likely include reductions in the current testing frequencies. Therefore, annualizing testing costs incurred during the period from January to June 2018 could overstate actual costs. The Public Staff recommends that Aqua recover the actual cost spent during the January to June period and that it track the expenses associated with NOD testing to be updated in future rate cases.

Regarding sludge expense, Aqua provided an update to their filed test year sludge expense to capture an operational change it indicated it made at wastewater treatment plants located in the Central/Cary region. Although data provided by Aqua shows an increase in sludge hauling over part of the update period, given the limited timeframe over which the increase occurred and the subsequent return to average levels shown by the data, it is unclear whether this increase can be expected to continue at the same levels. In order to account for this uncertainty, I used a two-year average from July 2016 through June 2018 and included the expected costs from two wastewater treatment plants that began operating post-test year to calculate my recommendation.

This concludes my summary.

MS. JOST: I move that the exhibits be identified as marked when filed and entered into evidence.

COMMISSIONER BROWN-BLAND: There being no objection, that motion will be allowed and the exhibits will be identified as they were marked when prefiled and received into evidence.

MS. JOST: Thank you.

(WHEREUPON, Public Staff Darden Exhibits 1 - 5 were marked for identification as prefiled and received into evidence.)

MS. JOST: The witness is available for cross examination.

MR. BRITTON ALLEN: Commissioner Gray, how's my volume level?

COMMISSIONER GRAY: If you speak into the microphone, sir, it will be just fine.

MR. BRITTON ALLEN: All right. I just wanted to make sure. Ms. Darden, my name is Britton Allen. I'm an attorney based in Raleigh. I represent Aqua North Carolina. As I was kind of going through and looking at some of the old stuff, I came across the name Lindsay Quant and I was confused for a

second. I figured you were the same person and I figured you may have gotten married, so I wanted to say congratulations, but I was kind of afraid there might have been a divorce so I had to ask this morning. So now that I have the answer to that, congratulations on your recent marriage.

THE WITNESS: Thank you.

CROSS EXAMINATION BY MR. BRITTON ALLEN:

- Q I'm going to kind of start -- I'm going to start with sludge. That's a good a place to start as any, I guess. We can get that over with. To calculate your adjustment to sludge hauling expenses you create an average going back two years; is that correct?
- A Yes.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

18

19

20

2.1

22

23

- 16 Q So, essentially, you took the hauling amount of each month and then divided it by 24?
  - A Yes.
    - Q I know that's a silly question for an engineer, but I'm a lawyer and I didn't take a math class after high school so. Now, are you familiar -- actually, you didn't account for any operational changes in putting together your average, did you?

A	We included the data provided by Aqua for the
	actual months leading up into July 2018. The
	operational changes was stated that they were
	made in April 2018, so whatever effect that may
	have had on the data. It was included in the
	two-year average.
Q	Okay. So it was included in the actual amounts

- Q Okay. So it was included in the actual amounts but you didn't necessarily adjust for an operational change; it was just included in the data?
- 11 A Yes.

- 12 Q Throughout this hearing or before have you become familiar with the term "burping"?
  - A Yes, it was in Joe Pearce's testimony.
- 15 Q Can you describe it to me as best you can?
  - A When -- as described in Joe Pearce's testimony it was described accurately when the sludge is at a high level and then there would be a potential event, a rain event, then it could back up into the plant, into the clarifiers and cause a a burping of, basically giving an operational issue.
    - Q Okay. So would -- sludge burping would be a service and environmental concern to a water

```
company; would you agree with that?
 1
 2
    Α
          Yes.
 3
          And it would also be a concern for an
          environmental regulator like DEQ, wouldn't it?
 4
 5
          Yes, it would be a concern but it's also
 6
          something that could be prevented with
 7
          operational functioning that is consist with how
 8
          the plant is normally operated.
 9
          Right.
                  So that kind of leads to my next
10
          question.
                     A water company would want to adjust
11
          its operations to eliminate burping?
          Yes.
12
13
          And I believe you already said you had the
14
          opportunity to reveal the testimony Mr. Pearce
          filed?
15
16
          Yes.
17
          So in his testimony he goes through various
          changes in operations Aqua has made to reduce
18
19
          burping and how that would cause an increase in
20
          sludge hauling; is that correct?
21
          Yes.
22
          Do you have your testimony with you?
23
          you do.
```

A

Yes.

- 1 Q You have a graph, it's like, I think it's the
  2 very, very last page. It's like Exhibit 5, page
  3 2. It's a bar graph.
- 4 A Uh-huh.
- So this graph shows basically the month-by-month of you doing your two-year average. It's got 24 months from July 2016 to June 18th (sic)?
  - A Yes.

- 9 Q So would you agree, and I counted but you can
  10 count behind me if you want to, that July of 2016
  11 to November '17 is 17 months?
- 12 A Subject to check, I'll agree.
- Q Okay. So in that period do you see how many months are over the two-year average?
- 15 A When did you have the range ending?
- 16 Q I'm sorry. From July 10th (sic) until November 17 the 17th (sic)?
- 18 A November 2017?
- 19 Q Yes, that's correct. From July 2016 until
  20 November 2017, how many months were over your
  21 two-year average.
- 22 A Two.
- Q So two out of 17? In the final seven months how many were over your two-year average?

1 A The final seven.

- Q Several times in your testimony you express uncertainty and the reasons for the rise for sludge. If you could turn to page 11, if you need to, you state that the hauling frequency may return to a regular maintenance level; is that correct?
- A That is correct.
- Q Well, if --
  - With -- because you're pointing out these on the graph. There are several different causes that can make the fluctuation besides just operational changes, and not shown on the graph with the updated testimony we can include the July 2018 data which is under the two-year average so we're not -- the Public Staff recognizes that operational changes can could affect the sludge hauling amounts but it's based on the data that's been provided. Being that it's a short period and that there is great variations in the data that's provided, we couldn't project an ongoing cost just based on the operational data that we have today.
- Q So on page 11, line 20 or 21, you said the

1		hauling frequency may return to regular
2		maintenance levels. It was line, I'm sorry, I'll
3		give you lines 9 to 10, I believe no, sorry,
4		wait, 20 to 21. I apologize.
5	A	Right. Like I said it's just based on the short
6		time period; it's too early to tell if it's not.
7	Q	If it's something that may return though, it also
8		may not. I mean, that's why you use the word
9		"may", right, to express some uncertainty?
10	A	Right. And just, and as you said, it shows the
11		July, the July periods do return to average
12		levels.
13	Q	Well, on page 11 I'm sorry, page 12, lines 7
14		to 8, you say this is potentially an isolated
15		peak. So when you say "potentially" it's also

A Correct.

So, if we assume, or is it possible that, if this does not return to its lower level as you have assumed it would in your calculations, this would result in an under-recovery for the Company, wouldn't it?

potentially not an isolated peak?

A It's too early to tell at this point to make a projection based on just the past few months

```
where these operational changes have made.
 1
                                                       Ιſ
         you make the projection now you have the
 2
         potential to under-recover or over-recover.
 3
 4
         Correct. But, if you're projection -- you're
 5
         making the projection that the average will
         return to where it was where for the past seven
 6
 7
         months it was up, it was above it. So if does
         not return to where it was in 2016 they would
 8
 9
         under-recover, wouldn't they?
         In that specific scenario, yes.
10
               So you said you reviewed Mr. Pearce's
11
12
         testimony; one more question on that.
                                                 Do you
13
         have any dispute with his statement that the
         improvement in operations to better control
14
15
         sludge could be an appropriate explanation for
16
         the increase in the last seven months of your
```

- 18 A Do you have the location of that?
- 19 Q I can find it. Give me one second, please. It's 20 kind of all through in here but --
- MR. BRITTON ALLEN: Thank you. (Directed to
- 22 Mr. Becker).

23 BY MR. BRITTON ALLEN:

graph?

24 Q It appears on page 4, lines 15 to 22, is one

1		example. Starting, yes. To improve an
2		environmental compliance, the Company reduced
3		concentrations of wastewater it finishes
4		will produce greater quantities of sludge solids?
5	A	So your question is
6	Q	Do you have any reason to dispute that that may
7		be an appropriate explanation for the increase in
8		the last seven months of your graph?
9	A	I don't have a reason to dispute the idea, but it
10		is not connected to any particular Aqua facility.
11	Q	I'm going to move to lab testing quickly. You
12		disagreed with the Company's per book and pro
13		forma amounts because of variations in the
14		treatment schedules for different systems; is
15		that correct?
16	A	I disagreed with the pro forma amounts. They
17		were based on comparisons of the test year to the
18		past three years individually and as an average.
19		So I disagreed with that being the basis for
20		their pro forma adjustments and it not and not
21		capturing that annual the amortization of
22		different test frequencies that occur over one
23		year.
24	Q	The Company's calculations I'm on page 4 or

the bottom of page 4. The Company's calculations
do not account for the variation in the frequency
with which specific water quality tests must be
performed. I'm sorry. I'll give you a chance to
get to that.

- A So you're -- what was the --
- So the question is part -- at least part of your disagreement was because they didn't account for variations on the different schedules of treatments?
- A Yes.

MR. BRITTON ALLEN: Okay. I have an exhibit. Do you want to hand it out for me? This can be marked Aqua-Darden Cross Exhibit 1, Madam Chair. And I'm not going to read a whole lot. There's only one question on this so we're not going to be reading together.

COMMISSIONER BROWN-BLAND: This one page document will be identified Aqua-Darden Cross Examination Exhibit 1.

(WHEREUPON, Aqua-Darden Cross

Examination Exhibit 1 is marked

for identification.)

## BY MR. BRITTON ALLEN:

1

2

3

4

5

6

7

8

9

10

11

13

14

15

- Q So, in your testimony you stated that the types of these tests and the schedules are determined by DEQ; is that correct?
- A For the compliance testing, yes.
- Q For the compliance testing, yes. And did you base your calculation on a data request from the Company, from Aqua?
- A On several data requests, yes.
- Q So this in front of you is Public Staff

  Engineering Data Request No. 3; would you agree?
- 12 | A Yes.
  - Q And the first question that's here is, please provide spreadsheets showing the minimum water testing system, test types and frequencies, as currently required by DEQ, for all water systems?
- 17 A Yes, that's what it says.
- Q Okay. So this analysis only accounts for the minimum schedules done -- minimum testing schedules done by DEQ; is that correct?
- 21 A This specific question is asking for, yes, all
  22 the required -- all the required testing by DEQ.
  23 Our recommendation includes the compliance
- testing and factors in the testing update with

the NOD sites. Operational testing historically has always been something that has not been tracked by the Company so it's been an amount that's been agreed upon between the Company and the Public Staff. In this case, that agreement was never reached and that's why my recommendation includes the required compliance testing and also the testing update that was provided by Aqua.

- Q But it doesn't include operations testing?
- A No.

- Q Okay. So you were aware of some of the service concerns expressed by customers in this docket?
- A Yes. And I will state the Public Staff does, we do recognize that operational testing should be recovered as long as it's reasonable and cost-effective, and that's why in the past we've encouraged Aqua to track these costs, and when this came up later when an agreement could not be reached, the Public Staff asked for the tracked operational costs and Aqua was not able to provide it at the time.
- Q So, if Aqua could improve water quality, including secondary standards, color, drinking,

1		all the things we've heard about, through
2		proactive testing or operational testing, that
3		may be worth some extra expense?
4	A	Yes.
5	Q	I want to move now to the update, the testing
6		update, the June through January through June
7		disagreement here. So you disagree with the
8		Company annualizing its samples; is that correct?
9	A	Yes.
10	Q	And you said it was because the Public Water
11		Supply Section of DEQ may reduce sampling
12		frequencies after September; is that right?
13	A	It's kind of right. The Aqua is to submit to
14		DEQ their sampling schedules and DEQ reviews the
15		frequency that Aqua proposes.
16	Q	But it's certainly possible that DEQ may not
17		reduce sampling frequencies after September?
18	A	On some systems they may not. It's treated by a
19		case-by-case basis.
20	Q	And there's no defined time test, in fact, for
21		this testing to end, is there?
22	A	No. It's an ongoing test and it's fluid, and the
23	10	initial part of this testing which occurred
24		between January and June was to kind was to

get a historical benchmark and now that, which we'll have a year's full of testing ending in September, and that's why the reduction of sampling frequencies are likely to occur around that time.

- Q So I believe you read you worked for PWSS for about four years, right?
- A Yes, I did.

- Q So, in your experience working there is PWSS or DEQ in the habit of ending testing before it's satisfied the problem is fixed?
- They are not in the habit of ending testing, but
  they are in the habit of giving the ownership and
  control over to the utility. They want the
  utility to determine how they best see fit to
  perform these operational tasks, whether it be
  testing or other compliance issues.
  - Q But they wouldn't want the testing to stop before they think the problem is corrected, would they?
  - A No, I don't think anybody would.
- Q Okay. I agree, I was -- So do you know how many systems were subject to that testing?
  - A The testing that Aqua proposed in their updates mentioned 50 NOD sites specifically.

Q And do you happen to know how many are still under that testing?

- A I'm not sure how many are under. I know that one of -- at least one of the systems has been ended because of a case-by-case situation where the well was no longer used.
- Q So it's possible one out of the 50 has -- or one of the 50 has been ended at least?
- A Well, and it's not -- it's not just a matter of ending the testing. Like I said before, it could also be a reduction and how often these tests are done. So, if there is a basis that all of the samples are coming back relatively around the same area, there's no point in continuingly -- continuing the frequency of the testing if that benchmark is already established.
- Q So did you suggest cutting this expense off, for the purposes of this rate case, after June of this year or September of this year?
- A We -- my recommendation is including the actual cost spent that was provided by Aqua with the intent that Aqua would continue to track these expenses like they had and that the actual cost will be recovered in future rate cases when it's

```
in that current timeframe. So it is the June --
 1
 2
          it is the January to June 2018.
 3
          You would agree now that we're well into
    0
          September and the testing is still going?
 4
 5
          Yes.
 6
               MR. BRITTON ALLEN:
                                   I have nothing further.
 7
               COMMISSIONER BROWN-BLAND:
                                           Is there
 8
    redirect?
 9
               MS. JOST:
                          Yes.
10
    REDIRECT EXAMINATION BY MS. JOST:
11
         All right.
                      Ms. Darden, counsel pointed out that
12
         you say in your testimony that -- and, I'm sorry,
13
          I'm talking about sludge hauling -- that levels
          may return to maintenance levels in the future,
14
15
          and you asked whether in turn that could mean
16
          that the levels will not return to maintenance
17
          levels, correct?
18
    A
         Yes.
19
          We are passing out right now what has been
20
          premarked as Public Staff Darden Redirect Exam
21
          Exhibit 1, and I'll pause for a moment while
          everybody gets a copy of that.
22
               COMMISSIONER BROWN-BLAND:
                                           This will be
23
24
     identified as Public Staff Darden Redirect Exam
```

1	Exhi	Lbit 1.
2		(WHEREUPON, Public Staff Darden
3		Redirect Exam Exhibit 1 is marked
4		for identification.)
5	BY N	MS. JOST:
6	Q	Could you describe, please, what's on this
7		exhibit? Do you have it?
8	A	I didn't
9	Q	Sorry. That would be hard without you
10	A	This is an extension of my Exhibit 5 that was
11		referenced earlier and it's adding the updated
12		month of July 2018 as seen in the last column of
13		the chart.
14	Q	And so where did that data come from that you
15		used to calculate the July 2018 sludge hauling
16		quantity?
17	A	This was actual data provided by Aqua.
18	Q	And does that data, in fact, show that the sludge
19		hauling amount has returned to a level below the
20		two-year average that you calculated?
21	A	Yes, it does.
22	Q	All right. You were also asked whether you agree
23		that the operational changes that Mr. Pearce
24		discusses in his testimony could lead to an

- increased sludge production, and you said that was possible; is that correct?
  - A Yes, that's correct.

- Q Are there any reasons why you wouldn't say that it's definitively the case that there will be an increase in sludge hauling? Is there anything about his testimony that would lead you to not give a full approval of that statement?
  - A The operational changes example that was described in the testimony, it describes a calculation that has several variables that were not specifically tied to Aqua, a Aqua wastewater treatment plant so as I do agree with that an operational change can affect it. There was not a specific example of which ones it was making that effect to.
  - Q And in his calculation did Mr. Pearce use data from actual Aqua wastewater treatment plants?
- A Not in the example in the testimony.
- Q All right. You were asked about operational testing expenses. You don't disagree that it's important for the Company to be able to recover operational testing expenses, correct?
- 24 A Yes, that's correct.

Q	But you	u believe,	correct,	that	those	expense	s
	should	be quantif	ied by tl	he Com	npany	so that	it
	can be	determined	whether	they	are r	easonabl	e?

A Yes, that's correct.

- Q And has the Company quantified those expenses?
- A The Company was unable to provide those tracked expenses when we did request them.
- You were asked whether it is possible that there will -- and we're talking about the testing update now -- whether it's possible that there will not be a reduction in sampling frequencies and you -- would you agree that it's possible that those frequencies won't be reduced in the future?
- A It's impossible as -- based on the amount of data that this testing has allowed to have there are -- there's potential that the reductions would be able to be made based on the historical data that can prove that the reduction of frequency is would be allowable. So when I stated before that they would be stopped, it doesn't necessarily mean that the testing would be stopped after September 2018, it would just be that reductions would be -- or the frequencies

would be changed.

- Q And what is your understanding that the frequencies could be changed based upon?
- A Based on the data that's collected, if certain sites are consistently providing the same results on a monthly basis, the frequency could be changed to quarterly. It could eventually be changed to semiannually and annually just depending on the historical data. And, also, when treatment is installed, a different sampling schedule would be needed to monitor that treatment than there would be to monitor the wells before the treatment has been installed.
- Q Okay. I'd like to return to sludge for just a moment and if I could have you look at this redirect examination. Is it correct that it shows levels that are higher, significantly higher than the preceding levels in March, April, and May of 2018?
- A Yes, that is correct.
- Q Could those levels be representative of a -- the Company's need to get rid of sludge that had been stockpiled prior to that period?
- A Yes, that is correct.

- Q And so, if that were the case, would that be an increased amount of sludge that you would expect to occur on a regular basis?
- A If the sludge was being hauled as a catch up to get back into compliance, as long as the plants are operating within compliance, you would not expect to have to do that again.

MS. JOST: I don't have any further questions.

COMMISSIONER BROWN-BLAND: Questions by the Commission? Commissioner Mitchell.

## EXAMINATION BY COMMISSIONER MITCHELL:

- Q Just two very quick questions. The first is about the -- I just want to make sure I understand your testimony and the Public Staff's position on operational testing. So the testing that DEQ is requiring in association with the NODs, is that what you're calling operational testing?
- A There's kind of -- because the NODs have been brought in there's three -- normally testing is just compliance which is required by DEQ, and operational which is determined by the Company, how they see fit to what testing needs to be done

to maintain the	ir regular operations.	This NOD
testing is kind	of an addition to all	of that and
it is it has	been enforced by DEQ,	but the
actual sampling	schedule is determined	d by the
Company.		

- Q Okay. And so I heard -- did I understand your testimony correctly when you said that the Public Staff in general supports operational testing?
- A Yes. We do agree that operational testing is necessary and should be recovered. Normally when -- historically how operational testing since it hasn't been tracked, it's in between the final, doing our compliance calculation and then coming to a final number, there's discussions back and forth between the Public Staff and the Company. In this case, the Public Staff and the Company weren't able to agree on a testing number and that's why it's not included in the recommendation.
- Q Okay, gotcha. The testing that has been done in association with the NODs, is that testing -- so I understand that you describe that as a third category of testing. But I understood Dr. Crockett's testimony this morning to be that

the Company really doesn't -- hasn't been testing for iron and manganese issues, but those issues -- the Company is alerted to those issues by customer complaints. So what I understood him to say was that they're not aware of a problem on a system until they get a call from a customer or notified by a customer that there's a problem. Could the testing that Aqua is now doing for the NODs, could that be incorporated into operations going forward so that some of these problems are avoided or addressed before they rise to the level of an issue for customers? And I think what is kind of tricky about Yes. putting the NOD testing into either compliance or operational is because they -- it is operational testing but since they're associated with an NOD that pulls in DEQ so that makes it kind of fit into either category. And it is for water quality sampling like these NODs are doing, it's tests that -- compliance sampling does test for that occasionally but if Aqua chooses, you know, on, unnecessarily a troubled system, they can increase that frequency. So it's not required by

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

А

DEQ, but they realize they need an increase so

then	that	extra	testing	would	become	operational
test	ing.					

- Q Okay, got it. Just one question about sludge expenses. Were the expenses that appear to be higher than sort of normal expenses I use that word because I can't think of a better one were those -- did the Public Staff determine that that activity occurred in conjunction with the system for which there had been an NOV issued or for which DEQ had had otherwise notified the Company of a compliance --
- A We can't specifically tie any -- the increase to any particular compliance issue. They did -- the increase did occur outside the test year. During the test year there was high amounts for the wastewater compliance fees so there were some compliance issues there, but it's -- you're not able to tie this increase to a particular event.

COMMISSIONER MITCHELL: Okay. Thank you.

COMMISSIONER BROWN-BLAND: Any questions on Commissioner Mitchell's questions?

MR. BRITTON ALLEN: I have a couple.

COMMISSIONER BROWN-BLAND: Mr. Allen.

EXAMINATION BY MR. BRITTON ALLEN:

- Q Commissioner Mitchell went back and asked you about the sludge quantity hauled again and whether you could determine if any particular operational -- or an adjustment by Aqua caused that. Do you remember that question?
- A Yes.

- Q So this July date here, the last one.
- 8 A Yes.
  - Q Is -- that July '18 date is still higher significantly than July '16 or July '17, isn't it?
- 12 A It is higher, yes.
  - Okay. And generally speaking, is the best evidence of what's going to happen going forward better and the later evidence is generally more predictive?
    - I feel like this goes back to what I had already said. Because there is this evidence of an increase just in these past four months of data, that being such a short time period we're not going to -- the Public Staff did not want to make a recommendation just off the short time period. But to encompass this increase is why we did shift from not just using the test year, we

1		updated to using through June 2018, so that this
2		increase would be a factor in our recommendation,
3		but it we wouldn't be or we wouldn't be making
4		a recommendation off just a couple of months of
5		data.
6	Q	And she also asked you a question about the
7		operational testing
8	A	Yes.
9	Q	expense and the tracking and how that works.
10		I appreciate that the Public Staff agrees with
11		the Company that that is important. Did you
12		when did you ask the Company for their
13		operational sampling data? Do you recall the
14		date?
15	A	We officially asked the Company in a data request
16		on September 5th in response to rebuttal
17		testimony submitted by the Company.
18	Q	So you didn't ask for that information until
19		after rebuttal testimony was filed?
20	A	We did not formally ask for it, no.
21		MR. BRITTON ALLEN: I have no further
22	ques	stions.
23		COMMISSIONER BROWN-BLAND: All right.
24	Publ	ic Staff Darden Redirect Exam Exhibit 1 and

```
Aqua-Darden Cross Examination Exhibit 1 both will be
 1
    received into evidence.
 2
                          (WHEREUPON, Public Staff Darden
 3
 4
                         Redirect Exam Exhibit 1 and
 5
                         Aqua-Darden Cross Examination
 6
                         Exhibit 1 were admitted into
 7
                         evidence.)
               COMMISSIONER BROWN-BLAND: And, Ms. Darden,
 8
 9
    you are excused.
10
                    (The witness is excused)
11
              (Public Staff is passing out papers)
               COMMISSIONER BROWN-BLAND: The Commission is
12
13
    feeling left out, but other people -- we didn't get
14
     some of --
15
               MS. CULPEPPER: We gave it to Chairman
16
    Finley.
17
                            (Laughter)
18
               CHAIRMAN FINLEY: I thought it was only for
19
    me.
20
                            (Laughter)
                           I did cut it down a little bit.
21
               MR. JUNIS:
22
               CHAIRMAN FINLEY: I thought that was a long
23
     summary.
                            (Laughter)
24
```

1	CHARLES JUNIS;
2	having been duly sworn,
3	testified as follows:
4	COMMISSIONER BROWN-BLAND: You may be
5	seated.
6	And before we begin with this witness, is
7	this when the issue related to the motion of
8	confidentiality and the Company's Response will come
9	into play?
10	MS. CULPEPPER: (Shakes head no).
11	COMMISSIONER BROWN-BLAND: This will be at a
12	later date, a later with a later witness?
13	MS. CULPEPPER: (Nods head affirmatively).
14	COMMISSIONER BROWN-BLAND: Okay. Then we'll
15	proceed.
16	DIRECT EXAMINATION BY MR. GRANTMYRE:
17	Q Please state your name.
18	A Charles Junis.
19	Q And by whom are you employed?
20	A The Public Staff.
21	Q In what capacity?
22	A I am a Utilities Engineer in the Water,
23	Wastewater and Telephone Division.
24	Q Did you cause to be prefiled on August 21, 2018,

1		direct testimony consisting of 66 pages and
2		Exhibits 1 through 25?
3	A	Yes, sir.
4	Q	Now, if I were to ask you those same and did
5		you also prefile supplemental testimony on
6		September 5, 2018, consisting of 20 pages and
7		Supplemental Exhibit Revised Exhibits 7, 8, 9,
8		and Junis Supplemental Exhibits 4, 5, 6 and 7?
9	A	Yeah, I would just summarize that as there were
10		seven supplemental exhibits.
11	Q	And, if I were to ask you those same questions
12		again today, would your answers be the same?
13	A	Yes, sir.
14	Q	And do you have any additions or corrections?
15	A	Not at this time.
16	Q	Do you have a summary of your testimony? Please
17		proceed.
18	A	Yes.
19		(WHEREUPON, the summary of CHARLES
20		JUNIS is copied into the record.)
21		
22		
23		
24		

## Summary of Testimony of Charles Junis Docket No. W-218, Sub 497

The primary purpose of my testimony is to present to the Commission the Public Staff's positions on the following issues:

1. Public Hearings and Customer Statements - The customers' testimony and written statements received in this docket detail comments, questions, and concerns about topics including, but not limited to, water quality, customer service. and the magnitude of the proposed rate increase. I believe it is of the utmost importance that the Commission continue to probe Agua's efforts to address customer service and poor water quality in communities across its service territories. We have all seen the pictures and videos of dirty water coming out of faucets and filling bathtubs. While Aqua has made improvements in some communities since its last rate case in 2014, there is still significant work to be done. In addition, there is a clear disconnect between the regular business hours and after-hours call centers that has resulted in an under quantification of customer complaints pertaining to discolored water and reported in the Semi-Annual Report Concerning Secondary Water Quality Concerns. The customer complaints were also diminished by Aqua's utilization of the now defunct interactive voice response, or "IVR," function that provided an automated response about the status of service issues based on a caller's zip code. The reporting requirements as ordered by the Commission in the Sub 363 docket have provided valuable information and accountability to consumers and I believe these reports should continue.

- 2. Plant Conditions and Operations Once properly incentivized, Aqua has utilized the water and sewer system improvement charges to invest in eligible projects on an expedited schedule. Significant repairs, replacements, and expansion projects were completed on multiple wastewater treatment plants since Aqua's last general rate case and Aqua plans significant further investment at Governors Club and The Cape. Operational compliance, especially pertaining to wastewater treatment and secondary water quality, has presented challenges for the Company and its customers.
- 3. AMR Meters Aqua proposes to include in Aqua NC Water rates the recovery of approximately \$4 million in AMR meter costs. This is in addition to the AMR meter costs being recovered through Brookwood Water rates, which the Public Staff reserved the right to challenge the reasonableness, prudency, and cost effectiveness of in the Sub 363 rate case. The implementation of AMR meters was not justified by a realistic cost-benefit analysis and therefore is an unreasonable cost. I recommend reductions in rate base, prior to depreciation, for Aqua NC Water and Brookwood Water in the amounts of approximately \$2.8 million and \$1.4 million, respectively, for the unreasonable AMR costs.
- 4. Sewer Utility Plant in Service Aqua's filed rate case application includes excess capacity adjustments for the Carolina Meadows, The legacy at Jordan Lake, and Westfall (also known as Booth Mountain) wastewater treatment facilities. Based on the calculation methodology established by the Commission and used in Aqua's prior two general rate cases, I have calculated excess capacity percentages which have been implemented by Public Staff Accountant Cooper.

- 5. Purchased Wastewater Capacity from Johnston County -Agua has negligently managed its contracts with the County and developers over a period of many years. This has resulted in uncollected contributions in aid of construction or "CIAC" for the Buffalo Creek Pump Station and Force Main and a costly discrepancy between the wastewater capacity fees collected by Agua from developers and the capacity fees paid by Aqua to the County, both of which Aqua seeks to recover in rates from customers. The customers should not be forced to indemnify Agua for Agua's contractual mismanagement. While the Company has collected \$2 million in CIAC by selling over 333,000 gallons of capacity to developers, only \$1.497 million of that was collected for the first 250,000 gallons sold. Therefore, I recommend that approximately \$2.12 million in capacity fees paid to the County for 250,000 gallons per day of wastewater capacity and the associated \$1.497 million in CIAC be removed from plant because the capacity is not "used and useful." In addition, I recommend the Commission impute \$315.687 of uncollected contributions in aid of construction for the Buffalo Creek Pump Station and Force Main.
- 6. Contract Services Other The Public Staff and Aqua have reached a partial settlement, including a reasonable ongoing amount of contract services expense for utility locates and other activities in response to the One Call or NC 811 system.
- 7. Salaries and Wages Aqua has transitioned from conducting utility locates and other activities in response to the One Call system with Company personnel to contracting the services of USIC. Aqua included salary expense for in-house personnel who had been doing a small part of the locate work, but beginning in May 2018 all that work has been done by USIC. I recommend reducing workforce

expense for 50% of a Field Supervisor I's workload and 50% of three Utility Technicians' workload, one from each of the three regions, to pass this savings to customers.

- 8. Purchased Water Aqua seeks to recover in rates an excessive amount of purchased water expense that includes extraordinarily high levels of water losses. For many of the purchased water systems, Aqua had one or more water main leaks during the applied for test year, but has repaired leaks and since operated with known and measurably lower water losses. Accordingly, I recommend a more normal 15% loss of purchased water, which means the total ongoing purchased water expense level should be decreased to approximately \$1,874,222.
- 9. Billing Analysis With consideration of the Environmental Finance Center Report, I determined the application and calculation of the growth and consumption factors utilized by Public Staff Accountant Cooper. The Public Staff believes the Consumption Adjustment Mechanism (CAM) if approved absent legislative authority puts the cart before the horse. In addition, the Public Staff has concerns about the proposed 1% threshold, lack of consideration of growth, and the impact on risk and associated rate of return. I performed the customer billing analysis for the test year period of October 2016 through September 2017 and then calculated the updated June 2018 end of period customer annualization. The billing analysis includes the calculation of the pro forma present and proposed revenues and rate design.

This completes my summary.

```
MR. GRANTMYRE: The witness is available for
 1
 2
     cross examination.
 3
               MR. DWIGHT ALLEN: Good afternoon,
    Mr. Junis.
 4
                           I'm sorry.
 5
               MS. FORCE:
               MR. DWIGHT ALLEN: Oh, I'm sorry --
 6
 7
                          May I qo first?
               MS. FORCE:
 8
               MR. DWIGHT ALLEN: -- You had --
 9
               MS. FORCE:
                           I just have a --
10
               MR. DWIGHT ALLEN: My problem, my fault.
11
               COMMISSIONER BROWN-BLAND:
                                          I'm happy to see
12
     everybody anxious to move it along.
13
                           (Laughter)
               Go ahead, Ms. Force.
14
15
               MS. FORCE: I'll try to move it along.
16
               THE WITNESS:
                             Me, too.
17
               MR. DWIGHT ALLEN: I put my pencil to it to
18
    move along as we were admonished to do earlier in the
19
    process, so my apologies to both of you.
20
    CROSS EXAMINATION BY MS. FORCE:
21
          Mr. Junis, I just have a brief line of questions
22
          for my own clarification. You've testified about
23
          the difference in the cost-benefit analysis
24
          between the Public Staff and the Company, am I
```

- right, as far as the AMR meters are concerned?
- 2 A That's correct.
- 3 Q On page 11 of your supplemental testimony, you --
- 4 I think as I understand it you came up with
- 5 \$15.87 as the average labor installation cost for
- 6 a standard meter?
- 7 A You said in my supplemental testimony, correct?
- 8 Q Yes.
- 9 A Okay.
- 10 | Q Page 11.
- 11 A Page 11.
- 12 | Q Down on line 13 is what I'm looking at.
- 13 A That's correct.
- 14 Q And when you say standard meter are you talking
- about mechanical meters then?
- 16 A Yes. When I say a standard meter I mean a person
- 17 has to go and read it.
- 18 Q Okay.
- 19 A Some may refer to it derogatorily but a standard
- 20 meter is what we like to say.
- 21 | Q Is that based on a pretty quick change out of
- 22 meters? Is that the idea? You said that -- say
- 23 something about that on page 12 I think.
- 24 A So that's right. So, based on my own knowledge

and also the knowledge of three very experienced people from the industry, nearly a hundred years of experience not only in the industry but specifically either supervising or actually conducting meter change outs. And I know the Company had filed a motion to strike this portion of my testimony, and so the Public Staff had prepared a showing of proof. And I would request that the Commission allow me five minutes to break -- to bring a meter onto the stand and conduct a meter change out for context for this discussion.

COMMISSIONER BROWN-BLAND: If that's to be done, that will be done when your counsel asks you questions.

THE WITNESS: Okay.

MS. FORCE: I'll -- shall I go forward with my next question?

BY MS. FORCE:

I was going to ask you, I think in this analysis you used a fairly short turn-around time. Is that assuming that five -- to cut 15 minutes, is that assuming that multiple meters are being changed out?

A	So my calculation is, the idea being that
	75 percent of these meter replacements would take
	approximately 15 minutes, or on average 15
	minutes. The other 25 percent would take on
	average an hour. There's complexity sometimes -
	you have to change out the meter box, the yoke,
	perhaps a coupler - so my calculation comes to
	about 32 minutes per change out.

- Q Okay. So I think what you're doing here, for purposes of that is an apples-to-apples because this is my understanding if you're going through the neighborhood to replace with AMR meters, it would be a whole neighborhood done at the same time, right?
- A That's correct. If you're doing a large scale meter change out like what the Company has done both in Brookwood and the A&C Water, you would expect that to be a home-to-home-to-home, not pertaining to Witness Thompson's rebuttal where he talks about this would be done as part of the normal working day. You're not going to change out 10,000 meters in a year just doing it whenever you have a minute, and then you're also going to have additional drive time. So I think

	•	
1		the hour and a half the Company has estimated was
2		not true to the question of that EDR and vastly
3		overestimates the time to change out a meter.
4	Q	Would there be some advantage with AMR meters to
5		having the whole neighborhood that is readable
6		from a van, whereas otherwise, if the Company
7		were not changing out the whole neighborhood at
8		the time but were just replacing meters as they
9		show signs of functioning less well? Is that
10		something that might be a different approach
11	A	I'm sorry. It seems like
12	Q	using mechanical or standard meters?
13	A	It seems like you had two separate questions. Is
14		there a cost savings or time savings associated
15		with reading meters using AMI techno or AMR
16		technology, and then you were talking about
17		installation. Do you mind clarifying?
18	Q	I'm sorry. That isn't very clear. I'm assuming
19		that the use of the AMR meters offers some
20		advantage in terms of if the whole neighborhood
21		or most of the neighborhood uses that technology,
22		then it's quicker to read the meters at that
23		point?

So the Company has quantified, I believe it's an

24

А

\$0.86 cost savings to the customer that's included in their cost benefit, I don't change that. That's included in both versions that I filed where we made changes to the equipment costs and labor costs because we feel that's where it was too high. We'll accept a theoretical savings on to customers, and it will be quicker. Me walking and reading meters is not going to be as fast as if I drive by. There are challenges to each though.

2.1

- Q Okay. And here's my question, would it be the Public Staff's position that using the standard meters, those would be replaced neighborhood by neighborhood or as there's some sign of degradation in a certain type of meter or in --
- A You would want to look at the age of those meters obviously. You don't want to change out a meter if it hasn't gotten close to or met its service life or shown signs of decreased functionality or accuracy, so you would likely plan accordingly.

  And usually all the meters in one subdivision would have been installed around the same time, unless it's been singularly changed out due to a malfunction or a broken meter.

```
1
    0
         Okay.
               I think I understand.
 2
    Α
         Okay.
 3
               MS. FORCE: Thank you. I have no further
    questions.
 4
 5
               MR. DWIGHT ALLEN:
                                  Finally.
 6
                           (Laughter)
 7
               THE WITNESS: It didn't take that long.
               MR. DWIGHT ALLEN: I know. Mr. Junis, we
 8
 9
    have met but just of the purposes of the record and
    the -- well, we've got a new court reporter now -- my
10
    name is Dwight Allen. I'm also appearing on behalf of
11
12
    Aqua.
13
    CROSS EXAMINATION BY MR. DWIGHT ALLEN:
14
         You were in the hearing room, were you not, just
15
         now when --
16
               COMMISSIONER GRAY: Mr. Allen.
                                                Thank you,
17
    sir.
    BY MR. DWIGHT ALLEN:
1.8
         You were in the hearing room just now when
19
20
         Mr. Henry was testifying as to data requests
21
         submitted by the Public Staff to the Company and
22
         he said that at times there were difficulty in
23
         getting answers from Aqua. Do you recall that?
24
    Α
         Yes, sir, and I can attest to that. On numerous
```

occasions we would have to send follow up after follow up to either clarify or to get exactly what we were asking for the first time. So that created delays because we were typically giving the Company two weeks in between responsiveness. So if we sent it we would give them two weeks to respond and so you can see how quickly your time evaporates in the discovery process. Well, let's talk about delays a little bit. prepared the engineering data request, did you not? I prepared a number of them, yes. I -- well, did you do that in consultation with Ms. Darden? That is correct.

15

1

2

3

4

5

6

7

8

9

10

11

12

13

- 16 But they were certainly not sent out without you 17 taking a look at them, were they?
- 18 Most -- more often than not I looked at all of 19 them.
- 20 Do you know of any specifically that you 21 didn't look at?
- 22 Not off the top of my head.
- Now, the Company filed its case on March 7, 2018; 23 24 is that correct?

```
1
    А
          Yes, sir. And, if you would remember, I was
 2
          engrossed in a Duke Energy Carolinas case at that
          time and actually my wife had to go into the
 3
          hospital at that time.
 4
                                   So --
 5
          And you think --
 6
    Α
          -- we all have personal challenges with the
 7
          timing --
 8
         We have personal challenges, but in March you
    Q
 9
          submitted a total of seven applications (sic),
          did you not?
10
                So what we did before we sent our first
11
12
          batch of discovery, we looked back at the
1.3
          discovery that was sent in the last rate case.
14
         And so those first data requests had numerous
15
          items within each one because we were trying to
16
          get the baseline information we needed for our
17
          analysis, and I think you can attest to that,
18
          too.
          In the first month you filed seven engineering
19
    0
20
          data requests; is that correct?
21
          Yes, sir. And then --
22
          And then in April --
23
    Α
          -- when they --
24
           -- wait, wait --
    Q
```

```
Α
         Oh, I'm sorry.
1
 2
               MR. GRANTMYRE:
                               Objection. Could he answer
 3
    the question?
               MR. DWIGHT ALLEN:
                                  Well, he can answer --
 4
               COMMISSIONER BROWN-BLAND: Let him answer
 5
 6
    the question, please, complete his answer.
 7
               THE WITNESS:
                             Thank you.
 8
               MR. DWIGHT ALLEN:
                                  Okay.
         So those initial data requests, as I pointed out,
 9
    A
10
          encompassed a lot of information. And so when we
11
         got those initial responses, it took a lot of
12
         time to review what we had and to provide initial
         feedback to the Company of what we needed next.
13
14
         So in April you filed zero engineering data
15
         requests; is that correct?
         Subject to check I'll accept that.
16
17
         And then May you filed three. Would you accept
18
          that subject to check?
         Certainly so.
19
20
         And similarly in March the Accounting Division
21
          filed one data request. Would you accept that
22
         subject to check?
23
          I would accept that subject to check, but I only
24
          reviewed a handful of accounting data requests --
```

- Q You can check how many you filed, can you not?
- A And I said I would accept that number subject to check.
- 4 Q And in April the Accounting Division also filed 5 one --
  - A Again, I would --

Q -- would you accept that?

instantly give feedback.

- And, if you'd let me answer the question, I will accept that subject to check but would like to add the context that again those initial data requests cover a plethora of information. It's not just one question and then the response.

  These are multi-part. You're asking for their work papers, the exhibits, the schedules with the working calculations from the filing. So this is not just a piece of paper that I can review and
- One of the reasons that sometimes it took time and difficulty in responding to those, as Mr. Henry said. The complication of the data requests would lead to how easy it was to respond to and whether there was difficulty, wouldn't it?

  A So, yes, it's my understanding there is a

statutory burden of proof that the Company has to do to justify their costs, and then the Public Staff reviews that and audits that. And so there is a great deal of complexity and work on either side.

Q And I will cut down, in June, you ratcheted up the number of engineering data requests, did you not?

- A Subject to check I would accept that. And you're also getting closer to the timeframes where we need to be making final determinations, starting to draft testimony, meeting within the Public Staff of how these adjustments then impact other adjustments. So it's a big puzzle and the pieces are starting to come together at that point, so you're trying to really lock down those numbers.
- Well, would you accept subject to check, and I'll try to short circuit this, that out of the total number of engineering data requests you filed, you filed them between June and September and you filed only 10 prior to June?
- A I'm sorry. I missed the first part of that question. Did you say number?
- Q You filed 50 data requests from June until

- September and you only filed 10 during the first three months after the Company's Application was filed?
- 4 A So you're referring to engineering data requests?
- 5 Q And these are engineering.
- 6 A Okay. I believe we sent a total of 62 so I will accept that subject to check.
  - And would you accept subject to whatever check you might wish to make that the similar trend was for the accounting data requests? There were 67 data requests filed between June and September and only 29 between March and May.
  - A Subject to check I would accept that, but I would like to again give the context. Initial data requests are complex and comprehensive, later data requests typically are more narrow.
- 17 Q Is that universally true?
- 18 A I said typically.

9

10

11

12

13

14

15

- 19 Q But you filed a lot of atypical data requests in 20 those last four months, didn't you?
- 21 A I don't know how you --
- 22 Q That had multiple parts to it.
- A Multiple parts does not change from more narrow scope in the questions.

- Q But you were still asking for spreadsheets and for the Company here to compile --
  - A Now remember --

Q -- data for your benefit --

5 COMMISSIONER BROWN-BLAND: Excuse me.

Excuse me. Mr. Allen and Mr. Junis, I don't see what this line of questioning has to do with the decisions that we have to make. I think it's already --

MR. DWIGHT ALLEN: I think it has a lot to do with it.

established on the record through Counsel Bennink that there was quite a bit of discovery, that the Company feels put upon, and that it was behind the eight ball due to the scheduling conflicts. I don't hear the Public Staff totally disagreeing with that, but I have heard the Public Staff say they don't think they had the fair playing field.

MR. DWIGHT ALLEN: Well --

COMMISSIONER BROWN-BLAND: So I do not see that this is going to help this Commission make its decision. I'll give you a little bit more time with this if you think it's important, but I would like us to --

1		MR. DWIGHT ALLEN: Well, after
2		COMMISSIONER BROWN-BLAND: be able to
3	move	on.
4		MR. DWIGHT ALLEN: I appreciate that.
5	BY M	R. DWIGHT ALLEN:
6	Q	But the Public Staff did make a recommendation
7		after the Company's rebuttal request was filed
8		that they would change the amortization period
9		for rate case expenses from three years to five
10		years, didn't you?
11	A	And I would be happy to comment on that. So I
12	11:	believe
13	Q	Could you answer my question yes or no? Did you
14		make that recommendation?
15	A	Did I personally make that recommendation?
16	Q	Did the Public Staff make that recommendation?
17	A	We have moved from a three-year amortization to a
18		five year. And, if you would recognize that you
19		filed your Motion of Appearance adding three
20		additional attorneys to this rate case between
21		that timeframe, and so that may dictate as an
22		update that may impact the Public Staff's
23		position.
24	Q	And that decision by Aqua to make an addition to

1	the legal staff might have been to answer the
2	late data requests that the Public Staff filed in
3	this case, might it not?
4	A I don't
5	Q Couldn't that be a possibility?
6	MR. GRANTMYRE: Wait a minute! You asked
7	the question, he gets to answer it.
8	MR. DWIGHT ALLEN: I said couldn't that be a
9	possibility
10	MR. GRANTMYRE: Well, he gets
11	MR. DWIGHT ALLEN: My question was not
12	finished, Mr. Grantmyre.
13	COMMISSIONER BROWN-BLAND: That's enough!
14	That's enough! It's obvious that there
15	MR. DWIGHT ALLEN: Let me ask him the
16	question.
17	COMMISSIONER BROWN-BLAND: It's obvious that
18	there's been unpleasant feelings between the two
19	parties but we're going to move on. That's the end of
20	that spilling over into this.
21	THE WITNESS: Madam Chair, would it okay to
22	answer that question?
23	COMMISSIONER BROWN-BLAND: You can answer
24	MR. DWIGHT ALLEN: Sure it will.

COMMISSIONER BROWN-BLAND: You can answer the question to the extent that you know.

And, Mr. Allen, you cannot answer for me or this Commission that sure he can answer so just wait for our answer please.

MR. DWIGHT ALLEN: Well, I --

COMMISSIONER BROWN-BLAND: Wait for our answer, please.

MR. DWIGHT ALLEN: (Laughing).

THE WITNESS: Thank you, Madam Chairman. I would just say you also have the update period and so that will create a lot of discovery, because we have then done a complete analysis of the test year and then we have to basically scrap portions of that to update through June, and so that's why you're seeing discovery in July, in August, because they're not going to have the financials for June until mid-July or later.

BY MR. DWIGHT ALLEN:

Q Okay. Now, moving on to another topic. You graduated from NC State University in 2011 with a Bachelor's Degree in Civil Engineering; is that

1	correct?

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

- A That is correct.
- Q And when did you join the Public Staff?
- A I joined the Public Staff in April of 2013.
  - Q And prior to that, you were a -- worked with a consulting group called the Farnsworth Group, did you not?
  - A Yes, in central Illinois near my hometown.
  - Q So I guess you worked for them for about two years?
    - Yes, and before that I have additional intern experience. So I have a real insight into municipal water and wastewater which I think also is applicable in certain circumstances for a private or investor-owned utility. So I worked basically every summer up to that point -actually, let's back up. So I worked for two years at Farnsworth Group, consulting group as a municipal engineer. So we were doing projects water and wastewater design - typically for small municipals, which the scale would be comparable to a large Aqua system. And before that, I interned with that company, again working and observing construction on those projects. And

1		before that I worked for the Town of Normal,
2		again observing construction and helping review,
3		design plans, specs. So I have more knowledge
4		than my age may suggest.
5	Q	Have you ever worked for a corporation other than
6		a consulting company in any management position?
7	A	No.
8	Q	Have you ever been in a senior management
9		position with a utility?
10	A	No.
11	Q	Have you ever been involving involved in
12		developing a capital budget or an operating
13	-	budget for a public utility?
1.4	A	No. But obviously in my five years with the
15		Public Staff I've reviewed utility expenditures,
16		both in the water and wastewater industry, but
17		also the electric industry.
18	Q	But you've never prepared one from scratch from a
19		corporation's standpoint?
20	A	No.
21	Q	In developing a capital or operating budget, do
22		you know whether companies generally look at book
23		numbers derived from rate case decisions or they
24		do they look at the actual expenses incurred

by the Company?

- A I'm sure they consider both.
- Q Have you ever been in a decision-making conference where they -- decision -- made a decision on one or the other?
- A I think clearly the Company makes decisions based on either the past approval on their expenditures and also what they anticipate going forward. So, as we've seen a pattern, Aqua was not historically heavily investing in secondary water quality filters, and then when they were properly incentivized with the WSIC and SSIC, they expended considerably more dollars to address that problem.
- Now, you said you were sure that they base those decisions on both book numbers from rate cases and numbers based on actual experience. How can you be sure of that if you've never been involved in one of those discussions?
- A I would expect that they would look at both. And we have reviewed, the Public Staff requested their monthly budget reports. When the Company looks at their budget amount in comparison to their actual and then recognize concerns or

1		benefits to what has happened over that period of
2		time, and those amounts may tie to their
3		operating budget. But I'm sure when setting that
4		operating budget amount there is some
5		consideration given to what are they recovering
6		in rates.
7	Q	Have you ever served as a project manager on a
8		major construction project?
9	A	Not a project manager but I've assisted a project
10		manager.
11	Q	Never were in charge of it yourself?
12	A	No.
13	Q	Have you ever been responsible for a meter
14		exchange program?
15	A.	Not in charge.
16	Q	Have you ever been in charge of a meter exchange
17		program for more than 15,000 meters that were
18		being exchanged?
19	A	No.
20	Q	When the Commission issues an Order in a general
21		rate case or any other Order for that matter,
22		does the public have a reasonable expectation
23		that it can read that Order and rely on the
24		decisions that the Commission made for making

1		their own decisions?
2	A	You're referring to the general public or who?
3	Q	Well, at first I'll say the general public.
4		Should they be able to read a Commission's Order
5		and rely on what the Commission says?
6	A	I think you're putting me in a position to
7		speculate. But I'm sure my wife would have a
8		different understanding of a Commission Order
9		than I would or you would. So to generalize like
10		that, I don't think is appropriate.
11	Q	Okay. What about lenders? What about a lender
12		that extends credit to a company like Aqua or any
13		other utility. Do they have a reasonable
14		expectation that they can look at the
15		Commission's Order and count on the Commission's
16		Order for what it says?
17	A	I don't think I'm in a position to opine on that.
18	Q	So you don't know whether a lender who extends
19		credit
20	A	I didn't say I don't know. I said I'm not in a
21		position to opine on that. I am not our economic
22		specialist. Mr. Hinton was here on the stand and
23		this question would have been better geared
24		towards him.

Q	Well so as a professional engineer who's
	worked for the Public Staff since 2013, you don't
	have been an opinion as to whether or not a
	lender ought to be able to look at a Commission's
	Order and rely on what that Order says?
А	I think they would consider it as part of their
	analysis.
Q	What about an invesper (sic), an investor? If an
	investor wants to invest in Aqua or Duke Energy
	or any other company regulated by the North

right to look at that Commission Order and think it means something and they can act in reliance on what the Commission says?

Carolina Utilities Commission, do they have a

- A They can certainly take that into consideration as part of their analysis.
- Q What about the utility rating agencies that rate the bonds and rate the stocks of Aqua and other utilities. Do they have a right to look at Commission Orders and think they can rely on what the Commission says?
- A I'm sure that that would be part of their analysis.
  - Q Have you ever had the opportunity to attend a

1		meeting between a rating agency and a utility
2		where the Commission's Orders are discussed?
3	A	I don't believe a rating agency. I believe I did
4		sit in on a meeting where investors were in
5		attendance.
6	Q	Have you ever been in one so where Moody's or
7		Standard & Poors, or some rating agencies, you
8		haven't
9	A	I don't believe a rating agency.
10	Q	Okay. Describe the one where you attended where
11		investment analysts were involved?
12	A	I believe it was - and I'm trying to recall -
13		that meeting included basically supervisors or
14		managers of investment groups, and I forget what
15		banks they were associated with. But, in terms
16		of level of details, certainly they had concerns
17		of what this Commission would rule on significant
18		costs and I believe it was I believe it was
19		tied to the Duke case.
20	Q	They asked Commissions about they asked
21		questions about what the Commission has ruled in
22		the nast?

Staff's position, where we thought the industry

I think they were more concerned with Public

23

24

A

```
was going and what was going on.
 1
 2
          Well --
 3
          -- again, I don't -- I don't have my meeting
          notes with me and so I'm just trying to recall
 4
          off memory of a meeting, and I don't even
 5
 6
          remember when it was.
 7
          Well, if they are concerned about what the Public
 8
          Staff's position is and what you think of the
          regulatory policy in North Carolina - I don't
 9
10
          mean you personally, I mean the Public Staff -
          they would certainly have some concern you would
11
12
          think about what the Commission does, wouldn't
          they, that would seem to follow?
13
14
    Α
          Yes.
15
               COMMISSIONER BROWN-BLAND:
                                           Mr. Allen, you're
16
    getting ready to be told by Commissioner Gray to pull
17
    up that mic.
18
               MR. DWIGHT ALLEN:
                                  You can't hear me?
                                                        I
    wish you would call my wife and tell her that I can
19
20
    whisper because she doesn't believe I am able to do
21
    that.
22
               COMMISSIONER GRAY: Pull it up closer,
23
    Mr. Allen, if you don't mind.
               MR. DWIGHT ALLEN:
24
                                   Okay.
                                          And I apologize.
```

## BY MR. DWIGHT ALLEN:

- Q Just talking briefly -- I'll get some smaller things out of the way and then we'll go to others. You do make an adjustment to salaries and wages for the people located with -- that are involved in the utility locating business; is that correct?
- A That is correct.
- And you say that the Company's records or a data request indicated that they spend a small amount of time internally on doing that internally but now they're going to contract it out?
- Orrect. So we asked them to quantify the costs or expenses tied to doing this work. The Company was unable to quantify those costs. They provided a planning document that they used when evaluating how many employees would it take to actually do all the work, because they were materially deficient in doing these locates, which potentially could have led to additional repairs and replacements of their equipment, be it water mains or sewer mains, and that's clear by -- there's dockets within this Commission, Sub W-218 that deal with that.

- Q And those employees actually had other job
  responsibilities. Is this -- this is something
  they were kind of doing on the side to help out,
  wasn't it?
  - A It is unclear because the Company did not quantify it of what their actual expenses were, so I took their two estimates one for the planning before they made the decision and then the other responses from Mr. Pearce of what he speculated it would take to do the work completely at this point and those were between six and 10 employees to do all the work.
  - Q And how did you derive at the 50/50 split, just allowing --
  - A Soit --

- 16 Q -- 50 percent of those?
  - A What I determined was you would likely need a supervisor to review these tickets as they come in and then he would dispatch utility techs to actually do the locates. So I said you would need a partial amount of the supervisor's time to do this work, and I said they have to do this across all of their service areas, these locates come in from every single county, well, Aqua

serves 51 counties. And so I took one utility technician from each region of the three rate regions and said half their time would be towards this. But I'm sure the Company did not have -- or I would expect the Company would have had numerous people intermittently doing this work, not a designated three people or four people that I make an adjustment against.

- Q I think my question was how did you decide 50/50 was the right number?
- A It's -- the basis is trying to get to an amount of employee -- so that's functionally two full employees. The Company had speculated between six and 10 employees to do the work fully. They were only doing, I think, approximately 10 percent of the work. And so that's how I got down to two employees because you do have to cover all the regions. So there's going to be some inefficiencies even with doing 10 percent of the work because it's spread over so many areas.

  Q Now, three of these employees, the non-supervisor

(WHEREUPON, the Court Reporter requested Mr. Allen to speak up.)

NORTH CAROLINA UTILITIES COMMISSION

employees are located --

```
MR. DWIGHT ALLEN:
                                  Is this thing on?
 1
 2
               COMMISSIONER GRAY:
                                   Pull it towards you,
 3
    Mr. Allen.
               MR. DWIGHT ALLEN:
                                 My apologies.
 4
    BY MR. DWIGHT ALLEN:
 5
 6
          Three of these employees, the non-supervisor
 7
          employees are located in different regions of the
 8
          Company's operating territory?
         That's correct.
 9
    Α
10
         All right.
                      So we're going to reduce a half of an
         employee in each of those regions?
11
12
         Yes, sir.
         And how do you recommend the Company do that?
13
14
          I think this would have to be part of their
15
          consideration of total staffing.
                                            So, if they're
16
          going to save staffing and time for meter
17
          reading, for example, then those people may be
18
          shifted to other responsibilities. And then, if
          you're going to save time by Aqua personnel not
19
20
          doing these locates, those people are going to be
21
          shifted around. And yet the Company has also
22
         hired a number of new staff since the last rate
          case that the Public Staff has agreed to.
23
24
          this considered as part of their level of
```

1		staffing or now are they potentially overstaffed?
2		So that's why we make this adjustment.
3	Q	Were you in the hearing room when the
4		Commissioners asked Mr. Becker whether or not he
5		had enough staffing to take care of the secondary
6		water quality issues that the Public Staff and
7		the Commission expressed so much concern about?
8	A	I believe that he said at this time he has enough
9		staffing.
10	Q	And he didn't say that that would mean an
11		adjustment of four employees that were cut in
12		half, did he?
L3	A	He didn't detail what assumptions he was making
L4		based on that. Was he making that based on the
15		current level that the Public Staff has
16		recommended or was that based on the day he sat
L 7		in this chair?
18	Q	So those employees could be assigned to
L 9		additional responsibilities within the Company?
20	A	I believe the Company lingo is they will be
21		reutilized.
22	Q	And that is fairly typical for companies to
23		reutilize employees, isn't it?
24	· A	Correct, but you also have to make that decision

1 based on your employee need or workforce needs, 2 and I don't think there's any consideration of The Public Staff was 3 that in these responses. very clear in what we were looking for and the 4 5 Company didn't provide it. They could not quantify the expense, costs associated with doing 6 this work. 7 8 Well, Mr. Becker's testimony says that those Q employees are being utilized for other job 9 duties, does he not? 10 Are you referring to his rebuttal testimony? 11 12 Well --I believe so. 13 14 And you dispute that? 15 А I didn't say I disputed that. Well, if he is correct he ought to be able to 16 fund those employees, shouldn't he? 17 That will be for this Commission to decide. 1.8 But if they should find that what he says is true 19 20 and those employees are being re-deployed the use 21 of work functions, the Public Staff wouldn't

If the Commission finds that it's appropriate

be denied, would they?

continue to recommend that half of those salaries

22

23

24

Α

```
1
          then this case is done and we lost.
 2
         Okay. Now, let's move --
 3
               MR. DWIGHT ALLEN:
                                 Are we going to go -- I'm
 4
    getting into a new line now that will probably take a
 5
    while.
             I can --
 6
               COMMISSIONER BROWN-BLAND: Go ahead and
 7
    start, and you've got 10 to 15 minutes here.
               MR. DWIGHT ALLEN:
                                 Okay.
                                          I'll see if I can
    skip around a little bit.
 9
10
    BY MR. DWIGHT ALLEN:
11
         Mr. Junis, you are familiar with the Carolina
12
         Meadows system, are you not?
13
          That's correct. I made one of my site visits
14
         there.
15
         And that system was built in 1989; is that
16
          correct?
17
          I would accept that subject to check.
18
         know that off the top of my head.
19
         Do you know when the Company bought the system?
20
    Α
          I don't recall off the top of my head.
21
          Would you accept that they purchased it in 2005?
22
    Α
          I would accept that subject to check.
23
          And so the original system is 28 years old, if my
24
          math is right, 1989 to -- 28 and 29 years old,
```

1	·	
1		something like that.
2	A.	There may be components that old. Obviously,
3		there's going to be repairs and replacements as
4		as time goes on.
5	Q	Right. I agree with you on that. Now, the
6		Company entered into a program to modernize the
7		Carolina Meadows system, did they not?
8	A	Correct.
9	Q	What is a clarifier?
10	A.	So that's part of the treatment process. And I
11		will add I think I can predict where this line
12		of questioning is going.
13	Q	Well, let's just answer the question
14	A	Okay.
15	Q	and not worry about where it's going because
16		I'm not even sure I know that so.
17		(Laughter)
18	A	It's part of the treatment process of a
19		wastewater treatment plant.
20	Q	Well, how does it treat? How does it treat? I
21		know it's part of the treatment.
22	A	So there are multiple stages within a wastewater
23		treatment plant. The clarifier is one component
24		and it towards the end of that process.

```
What does the clarifier do?
 1
    0
 2
          So the clarifier, you may have settling, you're
 3
          going to have -- your bugs continue to interact,
          and that's where you're getting towards the end
 4
          of the process with clear water so it clears --
 5
 6
    Q
          Essentially --
 7
          Sorry.
    Α
 8
          Finished?
                     I'm sorry.
          Yes.
 9
    Α
          Essentially what it does is it it clears out the
10
11
          water and let's the solids go to the bottom,
12
          doesn't it?
13
          Yes, as I said.
14
          That's essentially what a clarifier does.
15
          does a screen bar do?
          So you're referring to a bar screen which is
16
17
          going to remove --
18
          Yes.
19
          -- rags and front-end materials from going into
20
          the plant and potentially causing pumps to break.
21
          It could get caught up in other mechanical
22
          equipment and cause issues.
23
          And there are manual screens and there are
```

automatic bar screens --

A Correct.

- Q -- is that correct? What is the difference in maintaining a manual bar screen and an automatic bar screen?
  - A So a manual bar screen will -- an operator basically has to go and clear that. So think about raking your lawn. Functionally they're going to rake that bar screen and clear it.

    While a mechanical bar screen I think you referred to as an automatic bar screen it's going to be a machine, like a conveyor belt almost, that clears that screen.
  - And the screen will collect things like hygiene projects (sic), towelettes; if somebody -- a kid wants to get rid of their marijuana bag, it might screen that out and anything that we don't want to go into the system?
  - A Anything that gets flushed or put into a manhole is going to potentially be caught by a bar screen or go into the plant.
  - Q Now, you did an inspection at the Carolina Meadows system, did you not?
- 23 A Yes, I made a site visit.
- 24 Q And what did you find when you inspected that

1 system?

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

- I mean, this is detailed in my testimony. have a specific question?
- I just think, for the Commission's benefit, just describe it briefly. I mean, it is on page 39 of your testimony but not a whole lot of testimony about it.
- I mean -- so there was considerable rehab If I remember, and you said -- so projects. that's actually I think laid out earlier in my testimony when I detail my site visits, not on page 39; 39 is the excess capacity which it anticipated where you were going with this --
- Well, the -- that's one of the systems you cite Q for excess capacity.
- That's correct. So there was considerable rehab, including the building where office staff may go into to do some of their lab testing. they're going to do paperwork there and keep records. And so -- but there were substantial structural changes to that site.
- And in making those structural changes, did the Company downsize the size of that treatment facility?

1	А	I don't I believe the wastewater treatment
2		capacity stayed the same, if I remember right.
3	Q	Well, what about the equalizer basin and those
4		facilities? Did they downsize those?
5	A	Well, they reutilized tankage, from my
6		understanding, is different purposes in that
7		treatment process.
8	Q	And they basically reduced the size of the
9		overall operation in order to make sure the
10		capacity was closer to what the current flow was,
11		didn't they?
12	A	So do you have a value that you're suggesting
13		that the capacity went from one to another?
14	Q	Well, do you know whether it went down or not?
15	A	My understanding was that it had not, that the
16		capacity had remained the same. And I believe I
17		asked that question on the site visit.
18	Q	If testimony should be established in this case
19		that, in fact, the capacity was reduced to
20		accommodate current flows rather than what it was
21		before, that might have some impact on whether an
22		excess capacity adjustment would be appropriate
23		for Carolina Meadows, might it not?
24	Α	So I'm just flipping to page 39 where I list

	i	
1		those capacities. So are you saying that the
2		installed capacity is not three fifty, because
3		that's what we were told on numerous data
4		requests?
5	Q	But if the evidence should show that it was in
6		fact downsized; and maybe those numbers are
7		inaccurate.
8	A	So that would mean the Company provided
9		inaccurate information to the Public Staff for
10		utilization in their evaluation.
11	Q	Well, either that or perhaps what they provided
12		was misunderstood. That could be possible, too?
13	A	Certainly could be possible.
14	Q	Okay. Now, as to the equalizer basin, did you
15		discuss with them whether the equalizer size
16		of the equalizer basin was decreased?
17	A	Like I said, there was reutilization of tankage,
18		I don't recall exactly the EQ basin but it's my
19		understanding that that plant still can treat the
20		350,000 gallons that it was approved for.
21	Q	Okay. So then you don't know specifically
22		whether the equalizer basin - and this is the

to meet current flows --

23

24

last on this - or the system itself was downsized

```
1
    Α
          It's my --
 2
          -- based on the information you have?
 3
          It's my understanding that the plant still has
          the capacity to treat 350,000 gallons.
 4
          unsure if the EQ basin was decreased in size or
 5
 6
          has less ability to handle flow.
 7
          Would that have any impact on whether or not you
 8
          would choose to make an excess capacity
 9
          adjustment?
10
          The EQ basin is one component of that system and
11
          the costs to modify that system are impacted
12
          incrementally due to the size and capacity of
          that plant. That's why it's part of this excess
13
14
          capacity adjustment.
15
          Now moving on now to service.
                                          On page --
16
               COMMISSIONER BROWN-BLAND:
                                          It looks like,
17
    Mr. Allen, you might have been at a stopping point,
18
    were you?
19
               MR. DWIGHT ALLEN:
                                  I am at a stopping point.
20
               COMMISSIONER BROWN-BLAND: You don't have to
21
          I'll give you five more minutes.
22
               MR. DWIGHT ALLEN:
                                  No, I am.
                                              No, I'm good.
23
               COMMISSIONER BROWN-BLAND: All right.
                                                       Then
```

we're going to take a recess and we'll start back at

```
9:00 a.m. in the morning, assuming I can get past all
 1
 2
     the electric convoys headed down to take care of our
     less fortunate citizens. So I'll see you in the
 3
    morning.
               Thank you.
 4
 5
       (Whereupon, the hearing was recessed at 5:30 p.m.)
 6
 7
 8
 9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
```

## CERTIFICATE

I, KIM T. MITCHELL, DO HEREBY CERTIFY that the Proceedings in the above-captioned matter were taken before me, that I did report in stenographic shorthand the Proceedings set forth herein, and the foregoing pages are a true and correct transcription to the best of my ability.

Kim T. Mitchell Court Reporter II

NORTH CAROLINA UTILITIES COMMISSION