

STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH

CAROLINA WATER SERVICE, INC. OF NORTH CAROLINA
DOCKET NO. W-354, SUB 360

TESTIMONY OF GINA Y. CASSELBERRY
ON BEHALF OF THE PUBLIC STAFF

OCTOBER 3, 2018

1 Q. PLEASE STATE FOR THE RECORD YOUR NAME, BUSINESS
2 ADDRESS, AND PRESENT POSITION.

3 A. My name is Gina Y. Casselberry. My business address is 430 North
4 Salisbury Street, Dobbs Building, Raleigh, North Carolina. I am an
5 Advanced Utilities Engineer with the Public Staff's Water, Sewer and
6 Telephone Division.

7 Q. BRIEFLY STATE YOUR QUALIFICATIONS AND EXPERIENCE
8 RELATING TO YOUR PRESENT POSITION WITH THE PUBLIC
9 STAFF.

10 A. I graduated from Michigan Technology University receiving a Bachelor
11 of Science Degree in Civil Engineering. I have been with the Public
12 Staff's Water Division since February, 1992. I have presented
13 recommendations in rate increase proceedings, new franchise and
14 transfer proceedings, and other matters before the Commission for the
15 past twenty-six years, including Carolina Water Service, Inc. of North
16 Carolina's last five general rate cases.

1 **Q. WHAT ARE YOUR DUTIES IN YOUR PRESENT POSITION?**

2 A. My duties with the Public Staff are to monitor the operations of
3 regulated water and sewer utilities with regard to service and rates.
4 Included in these duties are field investigations to review, evaluate, and
5 recommend changes, when needed, in the design, construction, and
6 operations of regulated water and sewer utilities; presentation of expert
7 testimony in formal hearings; and presentation of information, data,
8 and recommendations to the Commission.

9 **Q. PLEASE DESCRIBE THE SCOPE OF YOUR INVESTIGATION IN**
10 **THIS CASE.**

11 A. On April 27, 2018, Carolina Water Service, Inc. of North Carolina
12 (CWSNC or Company) filed an application with the Commission to
13 increase its rates for providing water and sewer utility service in all of
14 its service areas in North Carolina, except the Corolla Light and
15 Monteray Shores Service Area (CL/MS). My investigation included
16 review of customer complaints, contact with the Division of Water
17 Resources (DWR), Water Quality and Public Water Supply, review of
18 company records, and analysis of revenues at existing and proposed
19 rates. I have also assisted Public Staff Accountant Lynn Feasel in
20 reviewing expenses and plant in service.

1 **Q. BRIEFLY DESCRIBE THE COMPANY’S APPLICATION IN THIS**
2 **CASE.**

3 A. CWSNC is proposing to increase the water and sewer rates for its
4 four rate divisions approved in the last general rate case: CWSNC
5 Uniform Water, CWSNC Uniform Sewer, Treasure Cove/Bradfield
6 Farms/Fairfield Harbour (TC/BF/FH) Water, and Bradfield
7 Farms/Fairfield Harbour (BF/FH) Sewer. CWSNC is also proposing
8 uniform water and sewer rates for Elk River Development. The test
9 year for this rate case is the 12-month period ending December 31,
10 2017.

11 In addition, CWSNC is requesting authority to implement a
12 “consumption band” water and wastewater rate adjustment
13 mechanism within each of the Company’s rate divisions. CWSNC
14 contends that the proposed mechanism would balance the risk and
15 impact on ratepayers and shareholders of levels of water and
16 wastewater consumption that are either significantly higher or lower
17 than those levels of consumption that were used to set the rates.

18 **Q. PLEASE DESCRIBE CWSNC’S SERVICE AREAS.**

19 A. CWSNC operates 92 water utility systems and 39 sewer utility
20 systems, some of which serve multiple subdivisions. These water
21 and sewer utility systems are spread throughout North Carolina.
22 CWSNC serves primarily residential customers, but it also serves a
23 limited number of retail and commercial customers. Casselberry

1 Exhibit Nos. 1 and 2 list the water and sewer systems operated by
2 CWSNC. As of the twelve month period ending December 31, 2017,
3 CWSNC served 30,437 water customers and 20,233 wastewater
4 customers, including CL/MS. There are also 3,774 water availability
5 customers in the Carolina Forest, Woodrun, Linville Ridge, Sapphire
6 Valley, Connetsee Falls, and Fairfield Harbour service areas, and
7 1,401 sewer availability customers in Sapphire Valley, Connetsee
8 Falls, and Fairfield Harbour.

9 **Q. WHAT ARE CWSNC'S PRESENT AND PROPOSED RATES?**

10 A. CWSNC's present and proposed rates for water and sewer utility
11 service are shown in Casselberry Exhibit No. 3.

12 **Q. WHAT EFFECTS WOULD THE PROPOSED RATES HAVE ON**
13 **RESIDENTIAL CUSTOMERS?**

14 A. If the rates requested by CWSNC are approved, the average
15 residential bill (< 1" inch meter) would increase, based on the
16 average monthly usage in gallons shown, as follows:

WATER OPERATIONS

Average

<u>Service Area</u>	<u>Usage</u>	<u>Existing</u>	<u>Proposed</u>	<u>Percentage</u>
Uniform Flat Rate		\$47.45	\$54.67	15.22%
Uniform Metered Rate	3,680	\$52.78	\$60.80	15.20%
Carolina Trace	3,680	\$32.57	\$36.29	11.42%
Carolina Forest	3,680	\$36.18	\$39.90	10.28%
High Vista Estates	3,680	\$36.40	\$40.12	10.22%
Riverpointe	3,680	\$47.62	\$51.34	7.81%
Whispering Pines	3,680	\$32.65	\$36.37	11.39%
White Oak/Lee Forest	3,680	\$32.83	\$36.55	11.33%
Winston Plantation	3,680	\$32.83	\$36.55	11.33%
Winston Pointe	3,680	\$32.83	\$36.55	11.33%
Woodrun	3,680	\$36.18	\$39.90	10.28%
Yorktown	3,680	\$42.88	\$46.60	8.68%
Zemosa Acres	3,680	\$43.83	\$47.55	8.49%
Elk River	3,680	\$35.31	\$60.80	72.19%
Fairfield Harbour/ Treasure Cove/ Bradfield Farms	4,115	\$25.27	\$38.33	51.68%

SEWER OPERATIONS

Average

<u>Service Area</u>	<u>Usage</u>	<u>Existing</u>	<u>Proposed</u>	<u>Percentage</u>
Uniform Flat Rate		\$ 56.57	\$ 61.65	8.98%
Uniform Metered Sewer	3,180	\$ 55.86	\$ 60.88	8.99%
White Oak Plantation/Lee Forest/Winston Point	3,180	\$ 52.08	\$ 55.38	6.34%
Kings Grant	3,180	\$ 48.83	\$ 52.13	6.76%
College Park	3,180	\$ 54.88	\$ 58.18	6.01%
Mt. Carmel	3,180	\$ 62.22	\$ 65.52	5.30%
Fairfield Mountain	3,180	\$106.25	\$109.55	3.11%
Elk River	3,180	\$ 32.92	\$ 60.88	84.93%
Fairfield Harbour/ Bradfield Farms		\$41.40	\$ 50.81	22.73%
Bulk Sewer		\$40.40	\$ 50.81	22.77%
Hawthorne at the Green		\$40.40	\$ 49.81	23.29%

1 **Q. HAVE YOU REVIEWED THE OPERATIONAL STATUS OF THE**
2 **WATER AND SEWER SYSTEMS WITH THE WATER QUALITY**
3 **AND PUBLIC WATER SUPPLY SECTIONS OF THE DIVISION OF**
4 **WATER RESOURCES (NORTH CAROLINA DEPARTMENT OF**
5 **ENVIRONMENTAL QUALITY)?**

6 A. Yes. I contacted all of the regional offices. None of the regional
7 office personnel expressed any major concerns with the systems
8 serving CWSNC customers or identified any major issues
9 concerning water quality.

10 **Q. HAS THE PUBLIC STAFF RECEIVED ANY CUSTOMER**
11 **COMPLAINTS AS A RESULT OF THE CUSTOMER NOTICES IN**
12 **THIS PROCEEDING?**

13 A. Yes. Customer hearings and complaints will be addressed in
14 Casselberry supplemental testimony.

15 **Q. BRIEFLY EXPLAIN YOUR BILLING ANALYSIS.**

16 A. I determined the end-of-period (EOP) customers by comparing the
17 EOP customers from Item 26 in the Company's Form W-1 filing with
18 the billing data for each service area, for each meter type, for the
19 twelve months ended December 31, 2017. I also compared total
20 consumption from Item-26 filed with the Company's application with
21 total consumption billed for each service area, for each meter type
22 for the twelve months ended December 31, 2017. The results of my
23 billing analysis are shown in Casselberry Exhibit Nos. 4, 5, 6, and 7.

1 **Q. DID YOU CALCULATE CUSTOMER GROWTH FACTORS FOR**
2 **WATER AND SEWER SERVICE?**

3 A. Yes. I computed a composite customer growth factor (CGF) for
4 residential customers with meters less than one inch for water and
5 sewer service. My calculations are shown in Casselberry Exhibit
6 Nos. 8 and 9.

7 **Q. DID YOU MAKE AN ADJUSTMENT FOR CUSTOMER GROWTH?**

8 A. Yes. I adjusted chemicals expense and sludge hauling for CWSNC
9 uniform sewer operations; and I adjusted sewer consumption at
10 present and proposed rates for customers with meters less than one
11 inch. Since CWSNC's uniform water service, TC/BF/FH water
12 service, and BF/FH sewer service all had CGF's less than one
13 percent, I did not make any adjustments to expenses or consumption
14 for the three of them.

15 **Q. WHAT ARE THE ANNUAL SERVICE REVENUES UNDER**
16 **PRESENT AND PROPOSED RATES?**

17 A. CWSNC's uniform water and sewer, TC/BF/FH's water, and BF/FH's
18 sewer present and proposed service revenues for the twelve months
19 ended December 31, 2017, are shown below:

1 SERVICE REVENUES

2 Water Utility Service:

3		<u>Present</u>	<u>Proposed</u>
4	CWSNC Uniform	\$16,931,032	\$19,432,356
5			
6	TC/BF/FH	\$ 1,043,134	\$ 1,560,921

7
8
9 Sewer Utility Service:

10		<u>Present</u>	<u>Proposed</u>
11	CWSNC Uniform	\$12,685,778	\$13,696,365
12			
13	BF/FH	\$ 1,769,755	\$ 2,163,100

14 For the calculations, see Casselberry Exhibit Nos. 10, 11, 12, 13, 14,
15 15, 16 and 17.

16 **Q. HAVE YOU RECOMMENDED ANY ADJUSTMENTS TO**
17 **EXPENSES RELATED TO WATER AND SEWER OPERATIONS?**

18 A. Yes, I have provided Public Staff Accountant Feasel with
19 recommendations for purchased water and sewer treatment, chemical
20 expenses, testing expenses, and maintenance and repair expenses.

21 PURCHASED WATER

22 Based on my review of invoices, I determined the appropriate
23 amount for purchased water is \$1,383,893. I made an upward
24 adjustment of \$6,854 to account for a missing invoice associated with
25 Woodrun Subdivision. I made an upward adjustment of \$9,115 for
26 purchased water associated with Yorktown Subdivision; \$7,398 was
27 reclassified from other maintenance expenses, and I added \$1,717

1 to account for a missing invoice. I removed \$39,913 for purchased
2 water associated with Riverbend Estates. CWSNC is the emergency
3 operator for Riverbend, and, therefore, the expense for purchased
4 water should not be included in CWSNC's general rate case. I also
5 reduced purchased water by \$77,016 for water losses greater than
6 20 percent. After my adjustments, I recommend \$1,282,933 as the
7 appropriate amount for purchased water. My adjustments are shown
8 in Casselberry Exhibit Nos. 18 and 19.

9 PURCHASED SEWER TREATMENT

10 Based on my review of invoices, I determined the appropriate
11 amount for purchased sewer treatment is \$680,168. I made an
12 upward adjustment of \$573 for the increased cost of sewer treatment
13 in The Ridges at Mountain Harbour Subdivision. After my
14 adjustment, I recommend \$680,742 as the appropriate amount for
15 purchased sewer treatment. My adjustments are shown in
16 Casselberry Exhibit No. 20.

17 CHEMICAL EXPENSES

18 **CWSNC Uniform Water and Sewer**

19 CWSNC expensed \$568,425 for chemicals associated with water
20 and sewer systems. The Company allocated chemical expenses
21 based on actual customers. The Company allocated \$356,307 to
22 water operations and \$212,118 to sewer operations. I have
23 reallocated chemical expenses based on the cost for chemicals

1 directly assigned to water operations and directly assigned to sewer
2 operations. I allocated \$224,688 for water operations and \$343,737
3 for sewer operations. I also adjusted chemical expenses for CWSNC
4 sewer operations to reflect customer growth, \$347,986 ($\$343,737 \times$
5 1.01236). I recommend chemical expenses of \$224,644 for water
6 operations and \$347,986 for sewer operations.

7 **TC/BF/FH Water and BF/FH Sewer**

8 CWSNC expensed \$59,785 for chemical expenses for water and
9 sewer operations. The Company allocated \$29,291 to water
10 operations and \$30,493 to sewer operations, based on actual
11 customers. I reallocated chemical expenses based on the cost for
12 chemicals directly assigned to water operations and directly
13 assigned to sewer operations. I recommend chemical expenses of
14 \$32,714 for water operations and \$27,071 for sewer operations.

15 TESTING EXPENSES

16 My recommendation for testing expenses reflects current testing
17 costs and tests, represented over the required frequency (monthly,
18 annually, and every three, six, or nine years) for each test under the
19 Safe Drinking Water Act and CWSNC's and BF/FH's wastewater
20 permits. I recommend testing expenses of \$169,389 for water
21 operations and \$278,954 for sewer operations for CWSNC systems;
22 and \$7,736 for water operations and \$21,922 for sewer operations

1 for TC/BF/FH systems. My calculations are shown in Casselberry
2 Exhibit Nos. 21 and 22.

3 MAINTENANCE AND REPAIR (M&R) EXPENSES

4 **CWSNC UNIFORM WATER**

5 I made the following adjustments to total M&R expenses for
6 operating water systems under CWSNC's uniform water rates.

7 Maintenance Supplies

8 CWSNC expensed \$38,200 for supplies associated with operating
9 its water systems. I removed \$4,357 for expenses associated with
10 Riverbend Estates Subdivision. CWSNC is the emergency operator
11 and expenses related to operating this system should not be included
12 in CWSNC's general rate case. I recommend \$33,843 as the
13 appropriate amount for maintenance supplies.

14 Maintenance Repair

15 CWSNC expensed \$235,195 for water maintenance and repairs. I
16 removed \$2,976 for expenses associated with Riverbend Estates. I
17 reclassified \$65,225 for the installation of a stainless steel well
18 screen in Belvedere Subdivision to plant in service. I recommend
19 \$166,994 as the appropriate amount for repair expenses.

20 Main Breaks

21 CWSNC expensed \$16,903 for repairing water mains. I removed
22 \$5,300 for expenses associated with Sapphire Valley which were

1 outside the 2017 test year. I recommend \$11,603 as the appropriate
2 amount for repairing water mains.

3 Permits and fees

4 CWSNC expensed \$65,500 for permits and fees associated with its
5 water systems. I reclassified \$3,140 to TC/BF/FH. I removed \$770
6 associated with Riverbend Estates, which was included twice. I also
7 removed \$910 for permits associated with Blue Ridge Manor, which
8 is not a system under CWSNC's uniform water rates. I recommend
9 \$60,680 as the appropriate amount for permits and fees for
10 CWSNC's water systems.

11 Other Maintenance Expenses

12 CWSNC expensed \$212,553 for other maintenance expenses
13 associated with water operations. I removed \$7,398 from other
14 maintenance expenses for purchased water associated with
15 Yorktown Subdivision, which was already included in purchased
16 water. I also removed \$2,815 for expenses associated with
17 Riverbend Estates. I removed \$1,330 for testing expenses which are
18 already included in testing, and I removed \$1,503 to correct an error
19 in recording an invoice. I recommend \$199,507 as the appropriate
20 amount for other maintenance expenses.

1 Uniforms

2 I removed \$68 for expenses associated with Riverbend Estates. I
3 recommend \$8,464 as the appropriate amount for uniform expenses.

4 **CWSNC UNIFORM SEWER**

5 I made the following adjustments to total M&R expenses for
6 operating sewer systems under CWSNC's uniform sewer rates.

7 Permits and Fees

8 CWSNC expensed \$69,111 for permits and fees for its wastewater
9 treatment plants. I removed \$1,310 for Belvedere's annual permit
10 which was included twice. I recommend \$67,801 as the appropriate
11 amount for permits and fees.

12 Sewer Rodding Expenses

13 CWSNC expensed \$271,908 for maintaining its sewer mains. I
14 reclassified \$33,675 from sewer rodding expenses to sludge
15 removal. I recommend \$238,233 as the appropriate amount for
16 sewer rodding expenses.

17 Sludge Hauling

18 Sludge Hauling can vary from year to year depending on whether or
19 not a digester, clarifier, or equalization tank is pumped out in addition
20 to routine sludge hauling. In order to determine a representative
21 level for sludge hauling, I reviewed the Company's books and
22 records for 2015, 2016 and 2017, and calculated a three-year

1 average. For systems where a change in the process had occurred,
2 I adjusted the three-year average accordingly. My calculations are
3 shown in Casselberry Exhibit No. 23, including the \$33,675
4 reclassified from sewer rodding. I determined a representative level
5 of \$445,526 for sludge hauling. I also adjusted sludge hauling for
6 customer growth, \$445,526 ($\$445,526 \times 1.01236$). I recommend
7 \$451,033 as the appropriate level for hauling sludge.

8 **TC/BF/FH Water**

9 Permits and fees

10 As I previously testified. I reclassified \$3,140 for permits and fees
11 from CWSNC uniform water to permits and fees for BF/FH/TC. I
12 recommend \$3,140 as the appropriate level for permits and fees.

13 **BF/FH Sewer**

14 Sludge Hauling

15 Based on BF/FH's three-year average for hauling sludge, I
16 recommend \$64,774 as a representative level. My calculations are
17 shown in Casselberry Exhibit No. 23.

18 **Q. WHAT IS YOUR RECOMMENDATION CONCERNING METERED**
19 **SEWER RATES FOR SAPPHIRE VALLEY, BRADFIELD FARMS**
20 **AND FAIRFIELD HARBOUR?**

21 A. In CWSNC's last general rate case, Docket No. W-354, Sub 356, the
22 Public Staff recommended that CWSNC consider implementing

1 metered sewer rates for customers in its Sapphire Valley service
2 area, its Fairfield Harbour service area, and Bradfield Farms
3 Subdivision, and reserved the right to independently propose
4 metered sewer rates for these systems. As part of the settlement
5 agreement, CWSNC supported the recommendation and agreed to
6 undertake such consideration in conjunction with its next general rate
7 case. In this proceeding, CWSNC decided not to implement metered
8 sewer rates for customers in those service areas. The Public Staff
9 still maintains the position that in order to be fair to all uniform sewer
10 customers, sewer customers in Sapphire Valley, who also have
11 metered water, should be charged the same rate as all of the other
12 uniform metered sewer customers. Since sewer customers in
13 Sapphire Valley were incorporated into CWSNC's uniform sewer rate
14 division, they should be charged the same rate as other metered
15 sewer customers within that rate division. In addition, customers with
16 multiple units behind a master meter should be billed the same way
17 as the other master metered customers, which specifies that
18 commercial customers, including condominiums or other property
19 owner associations who bill their members directly, shall have a
20 separate account set up for each meter and each meter shall be
21 billed separately based on the size of the meter and usage
22 associated with the meter as stated in the schedule of rates for water
23 and sewer service.

1 It is also the Public Staff's position that since BF/FH are in their own
2 separate rate division and all of the customers in that rate division have
3 flat sewer rates and the Public Staff received only one complaint
4 concerning the flat rate, the Public Staff agrees with the Company that
5 the flat rate should remain for the BF/FH rate division. However, in the
6 future, should the rate division for BF/FH be eliminated and customers
7 are incorporated into the CWSNC uniform sewer rate division, they too
8 should be charged the metered sewer rate for customers who also
9 have metered water. It is my understanding that the Company agrees
10 with the Public Staff's recommendation that customers in Sapphire
11 Valley should be billed the uniform metered sewer rate and that
12 customers in BF/FH should be billed a flat sewer rate in this general
13 rate case.

14 **Q. WHAT IS YOUR RECOMMENDATION CONCERNING THE NEWLY**
15 **METERED RESIDENTIAL CUSTOMERS IN LINVILLE RIDGE**
16 **SUBDIVISION AND THE RIDGES AT MOUNTAIN HARBOUR?**

17 A. Since CWSNC's last general rate case, water meters have been
18 installed for all of the residential customers in Linville Ridge and The
19 Ridges at Mountain Harbour (The Ridges). Both systems are located
20 in the mountains and are considered seasonal mountain systems,
21 since many of the customers are only there during the summer months
22 and holidays. I have evaluated the consumption for the other seasonal
23 mountain systems and determined that the average residential

1 monthly consumption is 1,920 gallons. It is my understanding that
2 CWSNC has agreed that using 1,920 gallons as the estimated
3 consumption for calculated revenue is reasonable and acceptable for
4 Linville Ridge and The Ridges.

5 The Ridges is a purchased sewer system. CWSNC purchases
6 sewage treatment from Clay County Water and Sewer District. Clay
7 County charges a flat bi-monthly rate of \$1,621.24. Based on the
8 billing data provided, there are 44 single family equivalents (SFE's).
9 The base facility charge per SFE is \$18.42 ($\$1621.24 / 2 \text{ months} / 44$
10 SFE). I recommend the following base facility charges:

11	Residential customers	
12	< 1 inch meter	\$ 18.42
13	Commercial customers:	
14	< 1 inch meter	\$ 18.42
15	2 inch meter	\$147.36

16 It is my understanding that CWSNC agrees with the Public Staff's
17 recommended base facility charges for The Ridges.

18 **Q. WHAT IS THE PUBLIC STAFF'S POSITION ON CWSNC'S**
19 **PROPOSED CONSUMPTION ADJUSTMENT MECHANISM**
20 **(CAM)?**

21 A. It is the Public Staff's position that any new rate mechanism, such as
22 a CAM, should be authorized by the North Carolina General

1 Assembly before being considered by the Commission for
2 rulemaking. During the 2017-2018 Session, House Bill 752 could
3 have added language to N.C. Gen. Stat. § 62-133 authorizing
4 customer usage tracking and rate adjustments. However, on April
5 26, 2017, after passing the House on April 25, 2017, it was referred
6 to the Committee on Rules and Operations of the Senate and is still
7 in Committee. It is the Public Staff's opinion that the General
8 Assembly had an opportunity to authorize this mechanism during its
9 existing session, but chose not to, even though it made other
10 changes to Chapter 62 involving water and wastewater utilities. In
11 light of the General Assembly's decision to not authorize a CAM, the
12 Public Staff does not believe the Commission should intervene and
13 create the CAM requested by CWSNC.

14 In addition, the Public Staff has serious concerns about the 1%
15 threshold proposed by CWSNC. For example, if the average usage
16 is 5,000 gallons per month then the mechanism would be triggered
17 by a variance of 50 gallons per month, which is approximately 50
18 seconds per day longer in the shower (assuming a low flow
19 showerhead of 2.0 gallons per minute) or approximately one
20 additional flush per day (assuming 1.6 gallons per flush under the
21 federal plumbing standards for new toilets). An alternative rate
22 mechanism should not be triggered by such an insignificant deviation
23 in normal customer usage.

1 Additionally, as described in Mr. Lineman's direct testimony,
2 utilization of actual consumption does not account for customer
3 growth. In a year of decreased usage, customer growth could offset
4 the lower usage revenues. In a year of increased usage, growth
5 would contribute to the Company potentially earning above and
6 beyond the Commission's approved rate of return. The proposed
7 CAM would allow CWSNC to increase rates for decreased usage
8 even if customer growth caused the Company to otherwise collect its
9 full revenue requirement. For example, in this rate case (2017)
10 customer growth was 0.938 percent for CWSNC's uniform water rate
11 division and 0.466 for the TC/BF/FH rate division. Typically in the
12 past, I did not adjust consumption or expenses related to
13 consumption for customer growth less than one percent. However,
14 any mechanism that benefits the Company by ensuring it collects its
15 full revenue requirement should also benefit customers by crediting
16 customers with revenue resulting from increased usage due to
17 customer growth.

18 **Q. WHAT IS THE PUBLIC STAFF'S POSITION CONCERNING**
19 **CWSNC'S ALTERNATIVE SHOULD THE COMMISSION DENY**
20 **THE COMPANY'S REQUEST TO IMPLEMENT A CAM?**

21 **A.** Mr. Linneman testified that as an alternative to a CAM, CWSNC's is
22 requesting that the Commission direct the parties to develop a rate
23 design that is based on a 60:40 percent ratio of base charge to usage

1 charge for water versus the current ratio of approximately 50:50
2 percent, which is accurate. Based on EOP residential customers for
3 uniform rates, with meters less than one inch, and actual
4 consumption for the test year period ending December 31, 2017, (not
5 include Elk River nor purchased water customers) the current ratio is
6 47:53 base charge to usage charge. Mr. Linneman further stated
7 that the actual cost ratio is approximately 80:20 fixed costs to
8 variable costs and that the current rate design reduces the
9 Company's ability to promote conservation without negatively
10 impacting its ability to earn a fair and reasonable rate of return.

11 The Public Staff opposes using CWSNC's alternative to a CAM in
12 this proceeding. It is the Public Staff's opinion that CWSNC should
13 have made it known to the Commission, the Public Staff, and its
14 customers that they intended to substitute a CAM with an alternate
15 rate design, should the Commission deny their request. As a result,
16 the Company did not provide the Public Staff sufficient time to further
17 investigate the matter nor were customers notified that an alternate
18 rate design was being considered and what effect the new rate
19 design would have on the proposed rates particularly the base
20 charge, which has been a contentious issue at customer hearings.
21 Therefore, the Public Staff recommends that the ratio remain in the
22 range of 45:55 base charge to usage charge, which is consistent with
23 what has been recommended in the past.

1 **Q. WHAT IS YOUR RECOMMENDATION CONCERNING CWSNC'S**
2 **PROPOSED RATES?**

3 A. The Public Staff's will file supplemental testimony in regard to service
4 revenues and its recommended rates.

5 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

6 A. Yes.

Carolina Water Service, Inc. of North Carolina
Docket No. W-354, Sub 360
For the 12 Months Ending December 31, 2017

Casselberry
Exhibit No. 1
Page 1 of 3

CWSNC Water

Service Area

Abington/InterLarken
Bahia Bay
Bear Paw
Beechbrook
Belvedere Plantation
Bent Creek
Brandywine Bay
Buffalo Creek
Chapel Hill
College Park
Country Club Annex
Country Hills
Crestview
Crystal Mountain
Lamplight/Danby/Wdsd Fall
Eagle Crossing
Eastwood Forest
Forest Brook/Ole lamp Place
Grandview at T-Square
Harbor House Estates
Heathfield
Hestron Park
High Meadows
Holly Acres
Hounds Ear
Huntington Forest
Kings Grant
Larkhaven
Lemmond Acres
Linville Ridge
Mason Landing
Meadow Glen
Misty Mountain
Monteray
Mt Mitchell
Nero
Oakdale terrace

Carolina Water Service, Inc. of North Carolina
Docket No. W-354, Sub 360
For the 12 Months Ending December 31, 2017

Casselberry
Exhibit No. 1
Page 2 of 3

CWSNC Water

Service Area

Olde Point
Pinnacle Shores
Powder Horn Mountain
Quail Ridge
Queen's Harbor
Riverwood
Saddlewood
Sherwood Forest
Sherwood Park
Ski Mountain
Stone Hollow
Suburban Heights
Sugar Mountain
The Harbor/Point
The Ridges at Mountain Harbor
Vander
Watauga Vista
Waterglyn
Westwood Forest
Wildlife Bay
Wildwood green
Willowbrook
Wolf Laurel
Wood Trace
Woodhaven Manor

Service Area

Clear Water Systems
Ashley Hills/Amber Acres
Heather Glen
Country Crossing
Oaks Plantation
Randsdell Forest
Sandy Trails
Stewarts Ridge
Wilders Village
Neuse Woods

Carolina Water Service, Inc. of North Carolina
Docket No. W-354, Sub 360
For the 12 Months Ending December 31, 2017

Casselberry
Exhibit No. 1
Page 3 of 3

CWSNC Water

Service Area

Tuckahoe
Jordan Woods
Hidden Hollow
Lindsey Point

New Under Uniform Rates

Forest Hills
Conneestee Falls
Fairfield Sapphire Valley
Fairfield Mountain (a.k.a. Rumbling Bald)
E k River (proposed)

Purchased Water Systems

Carolina Forest
High Vista
Riverpointe
Whispering Pines
White Oak Plantation
Woodrun
Yorktown
Zemosa Acres
Carolina Trace

Service Area

Bradfield Farms
Fairfield Harbor
Treasure Cove

Carolina Water Service, Inc. of North Carolina
Docket No. W-354, Sub 360
For the 12 Months Ending December 31, 2017

Casselberry
Exhibit No. 2
Page 1 of 1

CWSNC Sewer

Service Area

Abington/Kynwood
Ashley Hills
Bear Paw
Belvedere Plantation
Bent Creek
Brandywine Bay
Carolina Pines
Lamplight/Danby/Wdsd F
Hestron Park
Hounds Ear
Hemby Acres/Beacon Hill
Kings Grant - Raleigh
Kynwood
Nero
Olde Point
Queen's Harbor
Riverpointe
Saddlewood
Sugar Mountain
Wolf Laurel
Willowbrook
Regalwood
White Oak Estates
White oak High School
Child Daycare

Purchased Sewer

College Park
Kings Grant - Charlotte
Mt Carmel
White Oak Planation
The Ridges at Mountain Harbor
Fairfield Mountain

New Under Uniform Rates

Carolina Trace
Connestee Falls
Nags Head
Sapphire Valley
E k River (proposed)

Service Area

Bradfield Farms
Fairfield Harbour

Corolla Light/Monteray Shores

WATER UTILITY SERVICE UNDER UNIFORM RATES

Monthly Metered Water Service: (Residential and Commercial)

	<u>Existing</u>	<u>Proposed</u>
Base Facility Charges (zero usage)		
< 1"meter	\$ 24.44	\$ 28.16
1" meter	\$ 61.10	\$ 70.39
1-1/2" meter	\$ 122.20	\$ 140.79
2" meter	\$ 195.52	\$ 225.26
3" meter	\$ 366.60	\$ 422.36
4" meter	\$ 611.00	\$ 703.93
6" meter	\$1,222.00	\$1,408.87

	<u>Existing</u>	<u>Proposed</u>
Usage Charge, per 1,000 gallons		
Treated Water	\$ 7.70	\$ 8.87
Untreated Water (Brandywine Bay Irrigation Water)	\$ 4.11	\$ 4.11

Purchased Water for Resale

<u>Service Area</u>	<u>Bulk Provider</u>	<u>Usage Charge per 1,000 gallons</u>	
Carolina Forest	Montgomery County	\$ 3.19	\$ 3.19
High Vista Estates	City of Hendersonville	\$ 3.25	\$ 3.25
Riverpointe	CLTWater	\$ 6.30	\$ 6.30
Whispering Pines	Town of Southern Pines	\$ 2.23	\$ 2.23
White Oak Plantation/ Lee Forest	Johnston County	\$ 2.28	\$ 2.28
Winston Plantation	Johnston County	\$ 2.28	\$ 2.28
Winston Pointe	Johnston County	\$ 2.28	\$ 2.28
Woodrun	Montgomery County	\$ 3.19	\$ 3.19
Yorktown	City of Winston-Salem	\$ 5.01	\$ 5.01
Zemosa Acres	City of Concord	\$ 5.27	\$ 5.27
Carolina Trace	City of Sanford	\$ 2.21	\$ 2.21

<u>Monthly Flat Rate Water Service:</u> (per residence or single family equivalent)	\$ 47.45	\$ 54.67
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Availability Rates (semi-annual):

Applicable only to property owners in Carolina Forest and Woodrun Subdivisions in Montgomery County	\$ 24.65	\$ 24.65
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Availability Rates (Monthly):

Applicable only to property owners in Linville Ridge Subdivision	\$ 12.35	\$ 12.35
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Availability Rates (Monthly):

Applicable only to property owners in Fairfield Sapphire Valley Service Area	\$ 9.10	\$ 9.10
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Availability Rates (Monthly):

Applicable only to property owners in Connestee Falls	\$ 4.80	\$ 4.80
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SEWER UTILITY SERVICE UNDER UNIFORM RATES

Monthly Metered Sewer Service:

Base Facility Charges

	<u>Existing</u>	<u>Proposed</u>
Residential (zero usage)	\$ 45.97	\$ 50.10
Commercial (zero usage)		
<1" meter	\$ 45.97	\$ 50.10
1" meter	\$ 114.97	\$ 125.25
1-1/2" meter	\$ 229.85	\$ 250.50
2" meter	\$ 367.76	\$ 400.80
3" meter	\$ 689.55	\$ 751.50
4" meter	\$1,149.25	\$1,252.50
6" meter	\$2,298.50	\$2,504.99

Usage charge, per 1,000 gallons	\$ 3.11	\$ 3.39
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Monthly Metered Purchased Sewer Service:

Collection charge (Residential and Commercial/SFE)	\$ 36.75	\$ 40.05
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Usage charge, per 1,000 gallons based on purchased water

<u>Service Area</u>	<u>Bulk Provider</u>	<u>Existing</u>	<u>Proposed</u>
White Oak Plantation/ Lee Forest/Winston Point	Johnston County	\$ 4.82	\$ 4.82
Kings Grant	Two Rivers Utilities	\$ 3.80	\$ 3.80
College Park	Town of Dallas	\$ 5.70	\$ 5.70

<u>Monthly Flat Rate Sewer Service:</u>	\$ 56.57	\$ 61.65
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Multi-residential customers who are served by a
Master meter shall be charged the flat rate per unit

MT. Carmel Subdivision Service Area:

Monthly Base Facility Charge	\$ 6.77	\$ 6.77
Monthly Collection Charge (Residential and commercial/SFE)	\$ 36.75	\$ 40.05
Usage Charge/1,000 gallons (Based on metered water usage)	\$ 5.88	\$ 5.88

Regalwood and White Oak Estates Subdivision Service Area:

Monthly Flat Rate Sewer Service:

	<u>Existing</u>	<u>Proposed</u>
Residential Service	\$ 56.57	\$ 61.65
White Oak High School	\$1,770.10	\$1,929.12
Child Castle Daycare	\$ 219.90	\$ 239.66
Pantry	\$ 116.80	\$ 127.29

Fairfield Mountain/Apple Valley (a.k.a. Rumbling Bald) service area, Highland Shores Subdivision and Laurel Mountain Estates:

Monthly Sewer Rates:

Residential	<u>Existing</u>	<u>Proposed</u>
Collection charge/dwelling unit	\$ 36.75	\$ 40.05
Treatment charge/dwelling unit	\$ 69.50	\$ 69.50
Total monthly flat rate/dwelling charge	\$ 106.25	\$ 109.55
Commercial and Other		
Minimum monthly collection and treatment charge	\$ 106.25	\$ 109.55
Monthly collection and treatment charge for Customers who do not take water service (per single family equivalent)	\$ 106.25	\$ 109.55
Treatment charge per dwelling unit		
Small (less than 2,500 gallons per month)	\$ 78.50	\$ 78.50
Medium (2,500 to 10,000 gallons per month)	\$ 139.50	\$ 139.50
Large (over 10,000 gallons per month)	\$ 219.50	\$ 219.50
Collection Charge (per 1,000 gallons)	\$ 13.93	\$ 13.93

Availability Rates (Monthly):

Applicable only to property owners in Fairfield Sapphire Valley Service Area	\$ 8.30	\$ 8.30
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Availability Rates (Monthly):

Applicable only to property owners in Connetsee Falls	\$ 4.70	\$ 4.70
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**TREASURE COVE, REGISTER PLACE ESTATES, NORTH HILLS AND GLEN ARBOR/NORTH BEND
SUBDIVISIONS, FAIRFIELD HARBOUR SERVICE AREA, BRADFIELD FARMS SUBDIVISION,
LARKHAVEN SUBDIVISION, SILVERTON AND WOODLAND SUBDIVISIONS AND HAWTHORNE AT THE
GREEN APARTMENTS**

Monthly Metered Water Service: (Residential and Commercial)

	<u>Existing</u>	<u>Proposed</u>
Base Facility Charges (based on meter size with zero usage)		
< 1" meter	\$ 11.44	\$ 18.08
1" meter	\$ 28.60	\$ 45.21
1-1/2" meter	\$ 57.20	\$ 90.42
2" meter	\$ 91.52	\$ 144.67
Usage Charge, per 1,000 gallons	\$ 3.36	\$ 4.92

Availability Rates (Monthly):

Applicable only to property owners in Fairfield Harbour Service Area	\$ 3.28	\$ 3.28
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Monthly Sewer Rates:

<u>Residential:</u>	<u>Existing</u>	<u>Proposed</u>
Flat Rate, per dwelling unit	\$ 41.40	\$50.81
Bulk Flat Rate, per REU	\$ 40.40	\$50.81
<u>Commercial and other:</u>		
Monthly Flat Rate (Customers who do not take water service)	\$ 41.40	\$ 50.81
Monthly Metered Rates (based on meter size with zero usage)		
	<u>Existing</u>	<u>Proposed</u>
<1" meter	\$ 11.12	\$ 13.65
1-1/2" mete	\$ 55.60	\$ 68.24
2" meter	\$ 88.96	\$ 109.18
Usage charge, per 1,000 gallons	\$ 6.20	\$ 6.36
Monthly Sewer Availability Rate	\$ 2.64	\$ 2.64
<u>Bulk Sewer for Hawthorne at the Green Apartments</u>		
Bulk Flat Rate, per REU	\$ 40.40	\$ 49.81
<u>Availability Rates (Monthly):</u>		
Applicable only to property owners in Fairfield Harbour Service Area	\$ 2.65	\$ 2.65

ELK RIVER DEVELOPMENT

Monthly Metered Water Service: (Residential and Commercial)

	<u>Elk River's Existing</u>	<u>CWSNC Uniform Proposed</u>
Base Facility Charges (zero usage)		
< 1"meter	\$ 19.52	\$ 28.16
1" meter	\$ 48.79	\$ 70.39
1-1/2" meter	N/A	\$ 140.79
2" meter	\$ 156.12	\$ 225.26
Usage Charge, per 1,000 gallons	\$ 4.29	\$ 8.87

Monthly Metered Sewer Service: (Residential and Commercial)

	<u>Elk River's Existing</u>
Base Facility Charges (zero usage)	
< 1"meter	\$ 23.38
1" meter	\$ 58.45
2" meter	\$ 187.05
Usage Charge, per 1,000 gallons	\$ 3.00

Base Facility Charges

	CWSNC Uniform <u>Proposed</u>
Residential (zero usage)	\$ 50.10
Commercial (zero usage)	
<1" meter	\$ 50.10
1" meter	\$ 125.25
1-1/2" meter	\$ 250.50
2" meter	\$ 400.80
Usage charge, per 1,000 gallons	\$ 3.39

Carolina Water Service, Inc. of North Carolina
Docket No. W-354, Sub 360
For the 12 Months Ending December 31, 2017

Casselberry
Exhibit No. 4
Page 1 of 4

Billing Analysis for End of Period Customers

CWSNC Water

Service Area	Total										Total						Total	C Forest	Woodrun	Linville	Conn F	Sapp V		
	5/8 R	3/4 R	1 R	1.5 R	2 R	3 R	4 R	6 R	Flat R	RES	5/8 C	1 C	1.5 C	2 C	3 C	4 C	6 C	Comm.	EOP	availb	availb	availb	availb	availb
Abington/InterLarken	591									591	1							1	592					
Bahia Bay	116									116								0	116					
Bear Paw	342	3								345	5	1						6	351					
Beechbrook	37									37								0	37					
Belvedere Plantation	1203		2							1205	3	2		7	4			16	1221					
Bent Creek	302									302	1							1	303					
Brandywine Bay	846		3		1					850	10	3	2					15	865					
Buffalo Creek	284									284								0	284					
Chapel Hill	103									103								0	103					
College Park	80									80								0	80					
Country Club Annex	24									24								0	24					
Country Hills	67									67								0	67					
Crestview	39									39								0	39					
Crystal Mountain	48									48								0	48					
Lamplight/Danby/Wdsd Fall	1311		3							1314	3	2	1	1				7	1321					
Eagle Crossing	78									78								0	78					
Eastwood Forest	127									127	1							1	128					
Forest Brook/Ole lamp Place	126	1								127		1						1	128					
Grandview at T-Square	75									75	1							1	76					
Harbor House Estates	60									60								0	60					
Heathfield	67									67		1						1	68					
Hestron Park										0	1		2	7				10	10					
High Meadows	274									274	3			1				4	278					
Holly Acres	53									53		1						1	54					
Hounds Ear	423		6	1						430	8	2	0	3				13	443					
Huntington Forest	59									59								0	59					
Kings Grant	180		1							181	1							1	182					
Larkhaven	147	16								163								0	163					
Lemmond Acres	34									34	1							1	35					

Carolina Water Service, Inc. of North Carolina
Docket No. W-354, Sub 360
For the 12 Months Ending December 31, 2017

Casselberry
Exhibit No. 4
Page 2 of 4

Billing Analysis for End of Period Customers

CWSNC Water

Service Area	Total										Total								Total	C Forest	Woodrun	Linville	Conn F	Sapp V
	5/8 R	3/4 R	1 R	1.5 R	2 R	3 R	4 R	6 R	Flat R	RES	5/8 C	1 C	1.5 C	2 C	3 C	4 C	6 C	Comm.	EOP	availb	availb	availb	availb	availb
Meadow Glen	33									33								0	33					
Misty Mountain	141									141								0	141					
Monteray	27									27								0	27					
Mt Mitchell	204								16	220	2		2	1				5	225					
Nero	124									124								0	124					
Oakdale terrace	41									41								0	41					
Olde Point	192		3							195	1			1				2	197					
Pinnacle Shores	162									162	10							10	172					
Powder Horn Mountain	230									230	1	1						2	232					
Quail Ridge	172		2							174	1							1	175					
Queen's Harbor	112									112	2					1		3	115					
Ridges at Mt Harbor									59	59	1			1				2	61					
Riverwood	192	1	1		1					195			1	0				1	196					
Saddlewood	127									127								0	127					
Sherwood Forest	252									252	6		1	1				8	260					
Sherwood Park	96									96			1					1	97					
Ski Mountain	245									245								0	245					
Stone Hollow	222									222	1							1	223					
Suburban Heights	24									24								0	24					
Sugar Mountain	1423									1423	62	4	4	22	1			93	1516					
The Harbor/Point	1520		2	1						1523	15	3	1	3			2	24	1547					
Vander	258									258	1			2				3	261					
Watauga Vista	141									141								0	141					
Waterglyn	43									43								0	43					
Westwood Forest	117									117								0	117					
Wildlife Bay	83									83	1							1	84					
Wildwood green	227									227	1							1	228					
Willowbrook	170									170		1						1	171					
Wolf Laurel	643									643	6	14		3				23	666					

Carolina Water Service, Inc. of North Carolina
Docket No. W-354, Sub 360
For the 12 Months Ending December 31, 2017

Casselberry
Exhibit No. 4
Page 3 of 4

Billing Analysis for End of Period Customers

CWSNC Water

Service Area	Total										Total						Total	Total	C Forest	Woodrun	Linville	Conn F	Sapp V	
	5/8 R	3/4 R	1 R	1.5 R	2 R	3 R	4 R	6 R	Flat R	RES	5/8 C	1 C	1.5 C	2 C	3 C	4 C	6 C	Comm.	EOP	availb	availb	availb	availlb	availb
Wood Trace	46									46								0	46					
Woodhaven Manor	78		1							79								0	79					
Mason Landing	14									14	1			1				2	16					
Linville Ridge									341	341	1	1		4	1			7	348			58		
Uniform	14455	21	24	2	2	0	0	0	416	14920	152	37	15	58	6	1	2	271	15191	0	0	58		
Clearwater	1969								99		4													
Forest Hills	119									119	1	2	3					6	125					
Connetsee Falls	1383									1383	16			3				19	1402				487	
Fairfield Sapphire Valley	1550	4	5	32	17					1608	41	3	5	12	1			62	1670					812
Fairfield Mt/Apple Valley	1010	17	12							1039	43	4	4	4				55	1094					
Uniform	20486	42	41	34	19	0	0	0	515	21137	257	46	27	77	7	1	2	417	21554	0	0	58	487	812
Elk River	2	267	13							282	34	1		4				39	321					
Total Uniform	20488	309	54	34	19	0	0	0	515	21419	291	47	27	81	7	1	2	456	21875	0	0	58	487	812
Purchased Water Systems																								
Carolina Trace	1589		2		2					1593	25	1	1	3				30	1623					
Carolina Forest	200		1							201	4	1	1					6	207	671				
High Vista	257		1							258	1			2				3	261					
Riverpointe	195		2							197	5							5	202					
Whispering Pines	1560		16							1576	28	6	5	1		1		41	1617					
White Oak Plantation	571									571			1					1	572					
Woodrun	457									457	4	1						5	462		682			
Yorktown	105									105								0	105					
Zemosa Acres	240	1	2							243		1						1	244					
Grant Total	25662	310	78	34	21	0	0	0	515	26620	358	57	35	87	7	2	2	548	27168	671	682	58	487	812

Carolina Water Service, Inc. of North Carolina
Docket No. W-354, Sub 360
For the 12 Months Ending December 31, 2017

Casselberry
Exhibit No. 4
Page 4 of 4

Billing Analysis for End of Period Customers

Service Area	Total										Total							Total						
	5/8 R	3/4 R	1 R	1.5 R	2 R	3 R	4 R	6 R	Flat R	RES	5/8 C	1 C	1.5 C	2 C	3 C	4 C	6 C	Comm.	EOP	availb	availb	availb	availb	availb
Bradfield Farms	997	96	0							1093	1	5						6	1099					
Fairfield Harbor	1836	2	2							1840	22	1	2	3				28	1868	1064				
Treasure Cove	299	1	1		1					302									302					
Total	3132	99	3	0	1	0	0	0	0	3235	23	6	2	3	0	0	0	34	3269	1064				

Carolina Water Service, Inc. of North Carolina
Docket No. W-354, Sub 360
For the 12 Months Ending December 31, 2017

Casselberry
Exhibit No. 5
Page 1 of 2

Billing Analysis for End of Period Customers at Present Rates

CWSNC Sewer

Service Area	5/8 R	1 R	1 5 R	2 R	3 R	Flat R	Total Res.	5/8 C	1 C	1.5 C	2 C	3 C	4 C	6 C	Flat Comm	Total Comm	Total EOP	Availability Connestee	Availability Sapphire
Abington/kynwood	591					110	701	1								1	702		
Ashley Hills	1,173					23	1,196									0	1,196		
Bear Paw	69						69	3								3	72		
Belvedere Plantation	704	2					706	1			4	3			3	11	717		
Bent Creek	302						302									0	302		
Brandywine Bay	766	3		1		47	817	4							3	7	824		
Carolina Pines						341	341	1								1	342		
Lamplight/Danby/Wdsd F	1,308	3				7	1,318	327		1	2				4	334	1,652		
Hestron Park							-	1	0	2	7				1	11	11		
Hounds Ear	179	4					183	6	1		3					10	193		
Huntwick transferred							-									0	-		
Hemby Acres/Beacon Hill						686	686								8	8	694		
Kings Grant - Charlotte							-									0	-		
Kings Grant - Raleigh						118	118									0	118		
Kynwood							-									0	-		
Nero	124						124									0	124		
Olde Point	118	3					121				1					1	122		
Queen's Harbor	112						112	1					1			2	114		
Ridges at Mt. Harbour							-	1			1				35	37	37		
Riverpointe	195	1					196	1								1	197		
Saddlewood	18						18									0	18		
Sugar Mountain	1,105	1				137	1,243	38	3	2	19	1				63	1,306		
Wolf Laurel	55						55				2					2	57		
Willowbrook	170						170									0	170		
Total	6,989	17	-	1	-	1,469	8,476	385	4	5	39	4	1	-	54	492	8,968		
Carolina Trace	1559	2		2			1,563	15	1	1	1					18	1,581		
Connestee Falls	998					5	1,003	7			1					8	1,011	260	
Nags Head						646	646	11	7	4	7			2		31	677		
Total	9,546	19	-	3	-	2,120	11,688	418	12	10	48	4	1	2	54	549	12,237	260	-

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Carolina Water Service, Inc. of North Carolina
Docket No. W-354, Sub 360
For the 12 Months Ending December 31, 2017

Casselberry
Exhibit No. 5
Page 2 of 2

Billing Analysis for End of Period Customers at Present Rates

CWSNC Sewer

Service Area	5/8 R	1 R	1.5 R	2 R	3 R	Flat R	Total Res.	5/8 C	1 C	1.5 C	2 C	3 C	4 C	6 C	Flat Comm	Total Comm	Total EOP	Availability Connestee	Availability Sapphire
Regalwood/white oak						1061	1,061									0	1,061		
White Oak Estates						0	-									0	-		
White oak High School						1	1									0	1		
Child Daycare						1	1									0	1		
Elk River	116	4					120	2	1	2						5	125		
CL/MS	781	90	0	0	0		871	67	19	3	2	1				92	963		
Sapphire Valley (1)	645	2	128	68			843	19	3	2	6	1				31	874		91
Purchased Sewer																			
White Oak Planation	478						478									0	478		
College Park	51					1	52									0	52		
Kings Grant Charlotte	180	1					181									0	181		
Mt Carmel	381						381									0	381		
Fairfield Mountain (2,3)	399	12					411									0	411		

Total	12,577	128	128	71	-	3,184	16,088	506	35	17	56	6	1	2	54	677	16,765	260	91
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Note

- 1 Sapphire Residential customers are flat rate. Pupic Staff is recommending meter rates
- 2 Fairfield Mountain residential customers are flat rate
- 3 Fairfield Mountain treatment for commercial customers : ww only flat 2, small 7, medium 11, large 3

Service Area	5/8 R	1 R	1.5 R	2 R	3 R	Bulk S	Total Res.	5/8 C	1 C	1.5 C	2 C	3 C	4 C	6 C	Apts.	Total Comm	Total EOP	Availb Harbour	Multi Units
Bradfield Farms	1089					158	1,247		2		0				379	381	3256		3
Fairfield Harbour	1821	0					1,821	15	1	2	1					19	1,840	1050	
Total	2910	0	0	0	0	158	3,068	15	3	2	1	0	0	0	379	400	3,468	1050	

Carolina Water Service, Inc. of North Carolina
Docket No. W-354, Sub 360
For the 12 Months Ending December 31, 2017

Casselberry
Exhibit No. 6
Page 1 of 3

Billing Analysis for Consumption

CWSNC Water

Service Area	5/8 R	3/4 R	1 R	1.5 R	2 R	Total Residential	5/8 C	1 C	1.5 C	2 C	3 C	4 C	6 C	TOTAL COMMERCIAL	Grand Total
Abington/InterLarken	29,648,018	-	-	-	-	29,648,018	189,990	-	-	-	-	-	-	189,990	29,838,008
Bahia Bay	5,388,322					5,388,322								-	5,388,322
Bear Paw	4,664,180	57,220				4,721,400	225,960	158,640						384,600	5,106,000
Beechbrook	1,621,770					1,621,770								-	1,621,770
Belvedere Plantation	57,874,288		131,750			58,006,038	49,290	158,160		2,153,382	5,619,395			7,980,227	65,986,265
Bent Creek	12,571,364					12,571,364	27,078							27,078	12,598,442
Brandywine Bay	33,713,863		66,140		58,000	33,838,003	396,580	552,980	52,400					1,001,960	34,839,963
Buffalo Creek	12,096,130					12,096,130								-	12,096,130
Chapel Hill	3,192,297					3,192,297								-	3,192,297
College Park	3,871,020					3,871,020								-	3,871,020
Country Club Annex	1,008,180					1,008,180								-	1,008,180
Country Hills	3,674,440					3,674,440								-	3,674,440
Crestview	1,233,623					1,233,623								-	1,233,623
Crystal Mountain	891,329					891,329								-	891,329
Lamplight/Danby/Wdsd Fall	64,248,880		164,970			64,413,850	151,700	206,480	390,900	64,900				813,980	65,227,830
Eagle Crossing	3,866,720					3,866,720								-	3,866,720
Eastwood Forest	5,944,815					5,944,815	32,800							32,800	5,977,615
Forest Brook/Ole lamp Place	6,436,973	12,170				6,449,143		109,170						109,170	6,558,313
Grandview at T-Square	3,451,440					3,451,440	71,030							71,030	3,522,470
Harbor House Estates	2,436,790					2,436,790								-	2,436,790
Heathfield	7,203,260					7,203,260		53,660						53,660	7,256,920
Hestron Park	-					-	34,040		689,800	3,204,570				3,928,410	3,928,410
High Meadows	6,628,615					6,628,615	408,782	-		238,807				647,589	7,276,204
Holly Acres	2,449,110					2,449,110		360,500						360,500	2,809,610
Hounds Ear	9,475,326		67,503	126,520		9,669,349	627,170	683,560		510,649				1,821,379	11,490,728
Huntington Forest	3,052,103					3,052,103								-	3,052,103
Kings Grant	8,043,531		223,570			8,267,101	37,560							37,560	8,304,661
Larkhaven	8,135,010	841,200				8,976,210								-	8,976,210
Lemmond Acres	2,011,360					2,011,360	78,680							78,680	2,090,040
Linville Ridge	-					-	70	3,208,786		1,785,753	96,600			5,091,209	5,091,209
Mason Landing	502,790					502,790	109,514			159,700				269,214	772,004
Meadow Glen	1,816,520					1,816,520								-	1,816,520
Misty Mountain	2,781,711					2,781,711								-	2,781,711
Monteray	1,372,700					1,372,700								-	1,372,700
Mt Mitchell	5,360,181					5,360,181	115,640		186,956	832				303,428	5,663,609
Nero	5,695,630					5,695,630								-	5,695,630
Oakdale terrace	1,558,190					1,558,190								-	1,558,190
Olde Point	8,588,148		104,920			8,693,068	32,390			290,600				322,990	9,016,058
Pinnacle Shores	10,688,380					10,688,380	1,122,570							1,122,570	11,810,950
Powder Horn Mountain	4,708,467					4,708,467	40,420	243,436						283,856	4,992,323
Quail Ridge	8,443,150		54,810			8,497,960	112,250							112,250	8,610,210

Carolina Water Service, Inc. of North Carolina
Docket No. W-354, Sub 360
For the 12 Months Ending December 31, 2017

Casselberry
Exhibit No. 6
Page 2 of 3

Billing Analysis for Consumption

CWSNC Water

Service Area	5/8 R	3/4 R	1 R	1.5 R	2 R	Total Residential	5/8 C	1 C	1.5 C	2 C	3 C	4 C	6 C	TOTAL COMMERCIAL	Grand Total
Queen's Harbor	4,076,820					4,076,820	93,700					904,300		998,000	5,074,820
Ridges at Mountain Harbour	2,915					2,915	464,520			207,600				672,120	
Riverwood	10,185,340	296,710	148,330		38,100	10,668,480	22,740		19,510	1,830				44,080	10,712,560
Saddlewood	6,085,890					6,085,890								-	6,085,890
Sherwood Forest	7,221,525					7,221,525	138,480		147,400	1,252,100				1,537,980	8,759,505
Sherwood Park	5,473,750					5,473,750			386,300					386,300	5,860,050
Ski Mountain	6,429,521					6,429,521								-	6,429,521
Stone Hollow	10,829,050					10,829,050	7,810							7,810	10,836,860
Suburban Heights	1,213,348					1,213,348								-	1,213,348
Sugar Mountain	21,218,546		57,370			21,275,916	2,620,613	331,736	1,779,220	6,144,812	3,557,971			14,434,352	35,710,268
The Harbor	192,815,683		155,140	102,030		193,072,853	887,170	708,970	1,166,800	740,790			3,976,660	7,480,390	200,553,243
Vander	12,114,137					12,114,137	9,300			1,244,867				1,254,167	13,368,304
Watauga Vista	3,031,575					3,031,575								-	3,031,575
Waterglyn	1,584,450					1,584,450								-	1,584,450
Westwood Forest	5,433,320					5,433,320								-	5,433,320
Wildlife Bay	4,811,120					4,811,120	-							-	4,811,120
Wildwood green	10,977,328					10,977,328	30,327							30,327	11,007,655
Willowbrook	5,941,530					5,941,530		52,500						52,500	5,994,030
Wolf Laurel	13,024,043					13,024,043	486,384	514,893		429,071				1,430,348	14,454,391
Wood Trace	2,358,980					2,358,980								-	2,358,980
Woodhaven Manor	3,159,420		33,760			3,193,180								-	3,193,180
Total	684,336,915	1,207,300	1,208,263	228,550	96,100	687,077,128	8,624,558	7,343,471	4,819,286	18,430,263	9,273,966	904,300	3,976,660	53,372,504	740,449,632
Clearwater	101,557,612					101,557,612	13,500							13,500	101,571,112
Forest Hill	5,333,743					5,333,743	101,120	101,910	863,540					1,066,570	6,400,313
Conneestee falls	35,001,080					35,001,080	275,000			1,757,300				2,032,300	37,033,380
Sapphire Valley	35,143,932	38,547	218,340	5,117,390	2,198,829	42,717,038	1,956,725	791,279	1,328,136	2,489,505	1,321,926			7,887,571	50,604,609
Fairfield Mountain	26,280,820	388,740	1,451,340			28,120,900	1,614,290	922,180	610,520	1,083,890				4,230,880	32,351,780
Total Uniform	887,654,102	1,634,587	2,877,943	5,345,940	2,294,929	899,807,501	12,585,193	9,158,840	7,621,482	23,760,958	10,595,892	904,300	3,976,660	68,603,325	968,410,826
Elk River	45,223	7,494,774	806,144			8,346,141	602,388	472,771		643,629				1,718,788	10,064,929
Total Uniform	887,699,325	9,129,361	3,684,087	5,345,940	2,294,929	908,153,642	13,187,581	9,631,611	7,621,482	24,404,587	10,595,892	904,300	3,976,660	70,322,113	978,475,755
Purchased Water															
Carolina Trace	57,731,470		155,083		16,200	57,902,753	1,319,932	113,540	481,600	2,161,310				4,076,382	61,979,135
Carolina Forest	6,961,899		17,330			6,979,229	25,238	84,850	57,940					168,028	7,147,257
High Vista	10,466,600		58,500			10,525,100	20,940			727,600				748,540	11,273,640
Riverpointe	14,385,655		554			14,386,209	649,240							649,240	15,035,449
Whispering Pines	94,454,327		1,350,099			95,804,426	1,203,630	3,031,860	840,430	567,800		300		5,644,020	101,448,446
White Oak Plantation	27,303,660					27,303,660			221,000					221,000	27,524,660
Woodrun	16,592,047					16,592,047	50,360	282,424						332,784	16,924,831
Yorktown	3,820,510					3,820,510								-	3,820,510
Zemosa Acres	11,902,225	69,960	92,124			12,064,309		83,327						83,327	12,147,636

Carolina Water Service, Inc. of North Carolina
Docket No. W-354, Sub 360
For the 12 Months Ending December 31, 2017

Casselberry
Exhibit No. 6
Page 3 of 3

Billing Analysis for Consumption

TC/BF/FH Water

Service Area	5/8 R	3/4 R	1 R	1.5 R	2 R	Residential	5/8 C	1 C	1.5 C	2 C	3 C	4 C	6 C	COMMERCIAL	Total
Bradfield Farms	58,926,259	6,040,320	123,944			65,090,523	137,910	391,083						528,993	65,619,516
Fairfield Harbor	76,520,506	56,890	87,020			76,664,416	1,487,405	39,270	513,000	260,890				2,300,565	78,964,981
Treasure Cove	17,698,657	3,950	50,250		76,700	17,829,557								-	17,829,557
Total	153,145,422	6,101,160	261,214	-	76,700	159,584,496	1,625,315	430,353	513,000	260,890	-	-	-	2,829,558	162,414,054

Carolina Water Service, Inc. of North Carolina
Docket No. W-354, Sub 344
For the 12 Months Ending June 30, 2015

Casselberry
Exhibit No. 7
Page 1 of 2

Billing Analysis for Consumption

CWSNC Sewer

Service Area	5/8 R	1 R	1.5R	2 R	Total Residential	5/8 C	1 C	1.5 C	2 C	3 C	4 C	6C	Total Commercial	Grand Total
Abington/InterLarken	29,648,018	-		-	29,648,018	189,990	-	-	-	-	-		189,990	29,838,008
Ashley Hills	59,626,015				59,626,015								-	59,626,015
Bear Paw	639,170				639,170	51,920							51,920	691,090
Belvedere Plantation	30,942,818	131,750			31,074,568	15,120			1,913,432	4,897,995			6,826,547	37,901,115
Bent Creek	12,571,364				12,571,364								-	12,571,364
Brandywine Bay	28,891,403	66,140		58,000	29,015,543	105,800							105,800	29,121,343
Carolina Pines	-				-	153,933							153,933	153,933
Lamplight/Danby/Wdsd Falls	64,181,740	164,970			64,346,710	19,412,635		390,900	633,810				20,437,345	84,784,055
Hestron Park	-				-	34,040		689,800	3,204,570				3,928,410	3,928,410
Hounds Ear	3,901,602	51,630			3,953,232	575,128	81,040		510,649				1,166,817	5,120,049
Huntwick transferred	-				-								-	-
Independ/Hemby Acres/Beacon	-				-								-	-
Kings Grant - Raleigh	-				-								-	-
Kynwood	-				-								-	-
Mt. Carmel/Lees Ridge					-								-	-
Nero	5,695,630				5,695,630								-	5,695,630
Olde Point	4,382,387	104,920			4,487,307				290,600				290,600	4,777,907
Queen's Harbor	4,076,820				4,076,820	90,260					904,300		994,560	5,071,380
Ridges at Mountain harbour					-	464,520			207,600				672,120	672,120
Riverpointe	14,385,655	277			14,385,932	51,660							51,660	14,437,592
Saddlewood	751,750				751,750								-	751,750
Sugar Mountain	14,556,536	57,370			14,613,906	1,404,335	287,263	1,764,920	5,879,812	3,557,971			12,894,301	27,508,207
Willowbrook	5,941,530				5,941,530								-	5,941,530
Wolf Laurel	867,743				867,743				400,571				400,571	1,268,314
Regalwood	-				-								-	-
White Oak Estates	-				-								-	-
White oak High School	-				-								-	-
Child Daycare	-				-								-	-
Uniform	281,060,181	577,057	-	58,000	281,695,238	22,549,341	368,303	2,845,620	13,041,044	8,455,966	904,300	-	48,164,574	329,859,812

Carolina Water Service, Inc. of North Carolina
Docket No. W-354, Sub 360
For the 12 Months Ending December 31, 2017

Casselberry
Exhibit No. 7
Page 2 of 2

Billing Analysis for Consumption

CWSNC Sewer

Service Area	Total												Grand Total	
	5/8 R	1 R	2 R	Residential	5/8 C	1 C	1.5 C	2 C	3 C	4C	6C	Commercial		
Carolina Trace	56,398,900	155,083		16,200	56,570,183	990,062	113,540	481,600	109,900				1,695,102	58,265,285
Connestee Falls	24,917,060				24,917,060	130,000			1,569,000				1,699,000	26,616,060
Nags Head					-	1,511,240	3,926,330	1,325,720	4,687,400			3,922,510	15,373,200	15,373,200
Total Uniform	362,376,141	732,140	-	74,200	363,182,481	25,180,643	4,408,173	4,652,940	19,407,344	8,455,966	904,300	3,922,510	66,931,876	430,114,357
Elk River	1,842,376	110,492			1,952,868	201,118	476,855		401,259				1,079,232	3,032,100
Total Uniform with Elk River	364,218,517	842,632	-	74,200	365,135,349	25,381,761	4,885,028	4,652,940	19,808,603	8,455,966	904,300	3,922,510	68,011,108	433,146,457
Sapphire Valley	13,580,338	87,117	5,117,390	2,198,829	20,983,674	1,692,720	791,279	877,016	2,401,171	1,321,926			7,084,112	28,067,786
Total Uniform with Sapphire	377,798,855	929,749	5,117,390	2,273,029	386,119,023	27,074,481	5,676,307	5,529,956	22,209,774	9,777,892	904,300	3,922,510	75,095,220	461,214,243
CL/MS	41,941,083	10,117,960			52,059,043	6,965,110	3,164,690	1,000,000	1,578,400	72,000			12,780,200	64,839,243
Purchased Sewer	32,486,251	223,570		-	32,709,821	-	-	-	-	-	-		-	32,709,821
White Oak Plantation	22,212,210				22,212,210								-	22,212,210
College Park	2,230,510				2,230,510								-	2,230,510
Kings Grant	8,043,531	223,570			8,267,101								-	8,267,101
Mt Carmel	15,998,846				15,998,846									
Fairfield Mountain														
LG	370,720													
MED	2,219,380													
SM	457,920													

Service Area	5/8 R	1 R	1.5R	2 R	Total Residential	5/8 C	1 C	1.5 C	2 C	3 C	4 C	6C	Total Commercial	Grand Total
Bradfield Farms	65,238,945	925,979			66,164,924		1,908,468						1,908,468	68,073,392
Fairfield Harbour	76,034,766	-			76,034,766	1,232,960	11,110	513,000	86,190				1,843,260	77,878,026
Total	141,273,711	925,979	-	-	142,199,690	1,232,960	1,919,578	513,000	86,190	-	-	-	3,751,728	145,951,418

Carolina Water Service, Inc. of North Carolina
Docket No. W-354, Sub 360
For the 12 Months Ending December 31, 2017

Casselberry
Exhibit No. 8

Customer growth for < 1 inch residential customers
at Present Rates

Water				Customer Growth Factor
Service Area	EOP	EOP x 12	Total Bills	
CWSNC Uniform Rates	14,476	173,712	172,354	1.00788
New Uniform Rate				
Clearwater	1,969	23,628	23,508	1.00510
Forest Hills	119	1,428	1,413	1.01062
Connetsee Falls	1,383	16,596	16,395	1.01226
Fairfield Sapphire Valley	1,554	18,648	18,415	1.01265
Fairfield Mt/Apple Valley	1,010	12,120	12,296	0.98569
Elk River	269	3,228	3,156	1.02281
Carolina Trace	1,589	19,068	18,932	1.00718
Carolina Forest	200	2,400	2,393	1.00293
High Vista	257	3,084	2,792	1.10458
Riverpointe	195	2,340	2,260	1.03540
Whispering Pines	1,560	18,720	18,451	1.01458
White Oak Plantation	571	6,852	6,521	1.05076
Woodrun	457	5,484	5,476	1.00146
Yorktown	105	1,260	1,277	0.98669
Zemosa Acres	241	2,892	2,927	0.98804
Total	25,955	311,460	308,566	1.00938
Harbor	1838	22,056	22133	0.99652
Bradfield farms	1093	13,116	12913	1.01572
Treasure Cove	300	3,600	3546	1.01523
Total	3231	38772	38592	1.00466

Carolina Water Service, Inc. of North Carolina
Docket No. W-354, Sub 360
For the 12 Months Ending December 31, 2017

Casselberry
Exhibit No. 9

Customer growth for < 1 inch residential customers

Sewer					Customer Growth Factor
Service Area	EOP	EOP x 12	Total Bills		
CWSNC Uniform Rates	6,989	83,868	83,214		1.00786
New Uniform Rate					
Carolina Trace	1,559	18,708	18,562		1.00787
Connestee Falls	998	11,976	11,860		1.00978
Elk River	116	1,392	905		1.53812
CL/MS	781	9,372	9,378		0.99936
Sapphire Valley	645	7,740	7,745		0.99935
White Oak Plantation	478	5,736	5,435		1.05538
College Park	51	612	602		1.01661
Kings Grant Charlotte	180	2,160	2,135		1.01171
Total	11,797	141,564	139,836		1.01236
Harbor	1838	22,056	22133		0.99652
Bradfield farms	1093	13,116	12913		1.01572
Total	2931	35172	35046		1.00360

Carolina Water Service, Inc. of North Carolina
Docket No. W-354, Sub 360
For the 12 Months Ending December 31, 2017

Casselberry
Exhibit No. 10
Page 1 of 6

Public Staff's Revenue at Present Rates

CWSNC Water

Billing Type	Usage	Usage Rate	Usage Revenue	EOP Customers	EOP x 12 months	Base Charge	Base Charge Revenue	Total Revenue
Flat Residential	-		-	515	6,180	47.45	293,241	293,241
5/8" Residential Metered	887,654,102	7.70	6,834,937	20,486	245,832	24.44	6,008,134	12,843,071
3/4" Residential Metered	1,634,587	7.70	12,586	42	504	24.44	12,318	24,904
1" Residential Metered	2,877,943	7.70	22,160	41	492	61.10	30,061	52,221
1.5" Residential Metered	5,345,940	7.70	41,164	34	408	122.20	49,858	91,021
2" Residential Metered	2,294,929	7.70	17,671	19	228	195.52	44,579	62,250
Total Residential Metered	899,807,501		6,928,518	20,622	247,464		6,144,949	13,073,467
5/8" Commercial Metered	12,585,193	7.70	96,906	257	3,084	24.44	75,373	172,279
1" Commercial Metered	9,158,840	7.70	70,523	46	552	61.10	33,727	104,250
1.5" Commercial Metered	7,621,482	7.70	58,685	27	324	122.20	39,593	98,278
2" Commercial Metered	23,760,958	7.70	182,959	77	924	195.52	180,660	363,620
3" Commercial Metered	10,595,892	7.70	81,588	7	84	366.60	30,794	112,383
4" Commercial Metered	904,300	7.70	6,963	1	12	611.00	7,332	14,295
6" Commercial Metered	3,976,660	7.70	30,620	2	24	1,222.00	29,328	59,948
Total Commercial Metered	68,603,325		528,246	417	5,004		396,808	925,053
Total	968,410,826		7,456,763	21,554	258,648		6,834,998	14,291,761

Carolina Water Service, Inc. of North Carolina
Docket No. W-354, Sub 360
For the 12 Months Ending December 31, 2017

Casselberry
Exhibit No. 10
Page 2 of 6

Public Staff's Revenue at Present Rates

Billing Type	Usage	Usage Rate	Usage Revenue	EOP Customers	EOP x 12 months	Base Charge	Base Charge Revenue	Total Revenue
Availability								
Linville Ridge (monthly)	-		-	58	696	12.35	8,596	8,596
Sapphire Valley (monthly)				812	9,744	9.10	88,670	88,670
Connetsee (monthly)				487	5,844	4.80	28,051	28,051
Total Uniform	968,410,826		7,456,763	22,911	274,932		6,960,315	14,417,079

Elk River

Billing Type	Usage	Usage Rate	Usage Revenue	EOP Customers	EOP x 12 months	Base Charge	Base Charge Revenue	Total Revenue
5/8" Residential Metered	45,223	4.29	194	2	24	19.52	468	662
3/4" Residential Metered	7,494,774	4.29	32,153	267	3,204	19.52	62,542	94,695
1" Residential Metered	806,144	4.29	3,458	13	156	48.79	7,611	11,070
Total Residential Metered	8,346,141		35,805	282	3,384		70,622	106,427
5/8" Commercial Metered	602,388	4.29	2,584	34	408	19.52	7,964	10,548
1" Commercial Metered	472,771	4.29	2,028	1	12	48.79	585	2,614
2" Commercial Metered	643,629	4.29	2,761	4	48	156.12	7,494	10,255
Total Commercial Metered	1,718,788		7,374	39	468		16,043	23,417
Total	10,064,929		43,179	321	3,852		86,665	129,844

Carolina Water Service, Inc. of North Carolina
Docket No. W-354, Sub 360
For the 12 Months Ending December 31, 2017

Casselberry
Exhibit No. 10
Page 3 of 6

Public Staff's Revenue at Present Rates

Purchased water

Carolina Trace

Billing Type	Usage	Usage Rate	Usage Revenue	EOP Customers	EOP x 12 months	Base Charge	Base Charge Revenue	Total Revenue
5/8" Residential Metered	57,731,470	2.21	127,587	1,589	19,068	24.44	466,022	593,608
1" Residential Metered	155,083	2.21	343	2	24	61.10	1,466	1,809
2" Residential Metered	16,200	2.21	36	2	24	195.52	4,692	4,728
5/8" Commercial Metered	1,319,932	2.21	2,917	25	300	24.44	7,332	10,249
1" Commercial Metered	113,540	2.21	251	1	12	61.10	733	984
1.5" Commercial Metered	481,600	2.21	1,064	1	12	122.20	1,466	2,531
2" Commercial Metered	2,161,310	2.21	4,776	3	36	195.52	7,039	11,815
Total	61,979,135		136,974	1,623	19,476		488,751	625,725

Carolina Forest

5/8" Residential Metered	6,961,899	3.19	22,208	200	2,400	24.44	58,656	80,864
1" Residential Metered	17,330	3.19	55	1	12	61.10	733	788
5/8" Commercial Metered	25,238	3.19	81	4	48	24.44	1,173	1,254
1" Commercial Metered	84,850	3.19	271	1	12	61.10	733	1,004
1.5" Commercial Metered	57,940	3.19	185	1	12	122.20	1,466	1,651
Availability				671	1,342	24.65	33,080	33,080
Total	7,147,257		22,800	878	3,826		95,842	118,642

Carolina Water Service, Inc. of North Carolina
Docket No. W-354, Sub 360
For the 12 Months Ending December 31, 2017

Casselberry
Exhibit No. 10
Page 4 of 6

Public Staff's Revenue at Present Rates

Purchased Water

High Vista Estates

Billing Type	Usage	Usage Rate	Usage Revenue	EOP Customers	EOP x 12 months	Base Charge	Base Charge Revenue	Total Revenue
5/8" Residential Metered	10,466,600	3.25	34,016	257	3,084	24.44	75,373	109,389
1" Residential Metered	58,500	3.25	190	1	12	61.10	733	923
5/8" Commercial Metered	20,940	3.25	68	1	12	24.44	293	361
2" Commercial Metered	727,600	3.25	2,365	2	24	195.52	4,692	7,057
Total	11,273,640		36,639	261	3,132		81,092	117,731

Riverpointe

5/8" Residential Metered	14,385,655	6.30	90,630	195	2,340	24.44	57,190	147,819
1" Residential Metered	554	6.30	3	2	24	61.10	1,466	1,470
5/8" Commercial Metered	649,240	6.30	4,090	5	60	24.44	1,466	5,557
Total	15,035,449		94,723	202	2,424		60,122	154,846

Whispering Pines

5/8" Residential Metered	94,454,327	2.23	210,633	1,560	18,720	24.44	457,517	668,150
1" Residential Metered	1,350,099	2.23	3,011	16	192	61.10	11,731	14,742
5/8" Commercial Metered	1,203,630	2.23	2,684	28	336	24.44	8,212	10,896
1" Commercial Metered	3,031,860	2.23	6,761	6	72	61.10	4,399	11,160
1.5" Commercial Metered	840,430	2.23	1,874	5	60	122.20	7,332	9,206
2" Commercial Metered	567,800	2.23	1,266	1	12	195.52	2,346	3,612
4" Commercial Metered	300	2.23	1	1	12	611.00	7,332	7,333
Total	101,448,446		226,230	1,617	19,404		498,869	725,099

Carolina Water Service, Inc. of North Carolina
Docket No. W-354, Sub 360
For the 12 Months Ending December 31, 2017

Casselberry
Exhibit No. 10
Page 5 of 6

Public Staff's Revenue at Present Rates

Purchased Water

**White Oak Planation/Lee
Forest/Winston
Planation/Winston Point**

Billing Type	Usage	Usage Rate	Usage Revenue	EOP Customers	EOP x 12 months	Base Charge	Base Charge Revenue	Total Revenue
5/8" Residential Metered	27,303,660	2.28	62,252	571	6,852	24.44	167,463	229,715
1.5" Commercial Metered	221,000	2.28	504	1	12	122.20	1,466	1,970
Total	27,524,660		62,756	572	6,864		168,929	231,686

Woodrun

5/8" Residential Metered	16,592,047	3.19	52,929	457	5,484	24.44	134,029	186,958
5/8" Commercial Metered	50,360	3.19	161	4	48	24.44	1,173	1,334
1" Commercial Metered	282,424	3.19	901	1	12	61.10	733	1,634
Total	16,924,831		53,990	462	5,544		135,935	189,925
Woodrun (semi annually)				682	1,364	24.65	33,623	33,623
Total	16,924,831		53,990	1,144	6,908		169,558	223,548

Yorktown

5/8" Residential Metered	3,820,510	5.01	19,141	105	1,260	24.44	30,794	49,935
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Carolina Water Service, Inc. of North Carolina
Docket No. W-354, Sub 360
For the 12 Months Ending December 31, 2017

Casselberry
Exhibit No. 10
Page 6 of 6

Public Staff's Revenue at Present Rates

Purchased Water
Zemosa Acres

Billing Type	Usage	Usage Rate	Usage Revenue	EOP Customers	EOP x 12 months	Base Charge	Base Charge Revenue	Total Revenue
5/8" Residential Metered	11,902,225	5.27	62,725	240	2,880	24.44	70,387	133,112
3/4" Residential Metered	69,960	5.27	369	1	12	24.44	293	662
1" Residential Metered	92,124	5.27	485	2	24	61.10	1,466	1,952
1" Commercial Metered	83,327	5.27	439	1	12	61.10	733	1,172
Total	12,147,636		64,018	244	2,928		72,880	136,898
TOTAL	1,235,777,319		8,217,213	29,878	345,006		8,713,819	16,931,032

Carolina Water Service, Inc. of North Carolina
Docket No. W-354, Sub 360
For the 12 Months Ending December 31, 2017

Casselberry
Exhibit No. 11
Page 1 of 5

Public Staff's Revenue at Proposed Rates

CWSNC Water

Billing Type	Usage	Usage Rate	Usage Revenue	EOP Customers	EOP x 12 months	Base Charge	Base Charge Revenue	Total Revenue
Flat Residential	-		-	515	6,180	54.67	337,861	337,861
5/8" Residential Metered	887,699,325	8.87	7,873,893	20,488	245,856	28.16	6,923,305	14,797,198
3/4" Residential Metered	9,129,361	8.87	80,977	309	3,708	28.16	104,417	185,395
1" Residential Metered	3,684,087	8.87	32,678	54	648	70.39	45,613	78,291
1.5" Residential Metered	5,345,940	8.87	47,418	34	408	140.79	57,442	104,861
2" Residential Metered	2,294,929	8.87	20,356	19	228	225.26	51,359	71,715
Total Residential Metered	908,153,642		8,055,323	20,904	250,848		7,182,137	15,237,459
5/8" Commercial Metered	13,187,581	8.87	116,974	291	3,492	28.16	98,335	215,309
1" Commercial Metered	9,631,611	8.87	85,432	47	564	70.39	39,700	125,132
1.5" Commercial Metered	7,621,482	8.87	67,603	27	324	140.79	45,616	113,219
2" Commercial Metered	24,404,587	8.87	216,469	81	972	225.26	218,953	435,421
3" Commercial Metered	10,595,892	8.87	93,986	7	84	422.36	35,478	129,464
4" Commercial Metered	904,300	8.87	8,021	1	12	703.93	8,447	16,468
6" Commercial Metered	3,976,660	8.87	35,273	2	24	1,407.87	33,789	69,062
Total Commercial Metered	70,322,113		623,757	456	5,472		480,318	1,104,075
Total	978,475,755		8,679,080	21,875	262,500		8,000,315	16,679,395

Carolina Water Service, Inc. of North Carolina
Docket No. W-354, Sub 360
For the 12 Months Ending December 31, 2017

Casselberry
Exhibit No. 11
Page 2 of 5

Public Staff's Revenue at Proposed Rates

CWSNC Water

Billing Type	Usage	Usage Rate	Usage Revenue	EOP Customers	EOP x 12 months	Base Charge	Base Charge Revenue	Total Revenue
Availability								
Linville Ridge (monthly)	-		-	58	696	12.35	8,596	8,596
Sapphire Valley (monthly)				812	9,744	9.10	88,670	88,670
Connestee (monthly)				487	5,844	4.80	28,051	28,051
Total Uniform	978,475,755		8,679,080	23,232	278,784		8,125,632	16,804,712

Purchased water

Carolina Trace

Billing Type	Usage	Usage Rate	Usage Revenue	EOP Customers	EOP x 12 months	Base Charge	Base Charge Revenue	Total Revenue
5/8" Residential Metered	57,731,470	2.21	127,587	1,589	19,068	28.16	536,955	664,541
1" Residential Metered	155,083	2.21	343	2	24	70.39	1,689	2,032
2" Residential Metered	16,200	2.21	36	2	24	225.26	5,406	5,442
5/8" Commercial Metered	1,319,932	2.21	2,917	25	300	28.16	8,448	11,365
1" Commercial Metered	113,540	2.21	251	1	12	70.39	845	1,096
1.5" Commercial Metered	481,600	2.21	1,064	1	12	140.79	1,689	2,754
2" Commercial Metered	2,161,310	2.21	4,776	3	36	225.26	8,109	12,886
Total	61,979,135		136,974	1,623	19,476		563,142	700,116

Carolina Water Service, Inc. of North Carolina
Docket No. W-354, Sub 360
For the 12 Months Ending December 31, 2017

Casselberry
Exhibit No. 11
Page 3 of 5

Public Staff's Revenue at Proposed Rates

Purchased water

Carolina Forest

Billing Type	Usage	Usage Rate	Usage Revenue	EOP Customers	EOP x 12 months	Base Charge	Base Charge Revenue	Total Revenue
5/8" Residential Metered	6,961,899	3.19	22,208	200	2,400	28.16	67,584	89,792
1" Residential Metered	17,330	3.19	55	1	12	70.39	845	900
5/8" Commercial Metered	25,238	3.19	81	4	48	28.16	1,352	1,432
1" Commercial Metered	84,850	3.19	271	1	12	70.39	845	1,115
1.5" Commercial Metered	57,940	3.19	185	1	12	140.79	1,689	1,874
Availability				671	1,342	24.65	33,080	33,080
Total	7,147,257		22,800	878	3,826		105,395	128,195

High Vista Estates

5/8" Residential Metered	10,466,600	3.25	34,016	257	3,084	28.16	86,845	120,862
1" Residential Metered	58,500	3.25	190	1	12	70.39	845	1,035
5/8" Commercial Metered	20,940	3.25	68	1	12	26.95	323	391
2" Commercial Metered	727,600	3.25	2,365	2	24	225.26	5,406	7,771
Total	11,273,640		36,639	261	3,132		93,420	130,059

Riverpointe

5/8" Residential Metered	14,385,655	6.30	90,630	195	2,340	28.16	65,894	156,524
1" Residential Metered	554	6.30	3	2	24	70.39	1,689	1,693
5/8" Commercial Metered	649,240	6.30	4,090	5	60	28.16	1,690	5,780
Total	15,035,449		94,723	202	2,424		69,273	163,997

Carolina Water Service, Inc. of North Carolina
Docket No. W-354, Sub 360
For the 12 Months Ending December 31, 2017

Casselberry
Exhibit No. 11
Page 4 of 5

Public Staff's Revenue at Proposed Rates

Purchased water

Whispering Pines

Billing Type	Usage	Usage Rate	Usage Revenue	EOP Customers	EOP x 12 months	Base Charge	Base Charge Revenue	Total Revenue
5/8" Residential Metered	94,454,327	2.23	210,633	1,560	18,720	28.16	527,155	737,788
1" Residential Metered	1,350,099	2.23	3,011	16	192	70.39	13,515	16,526
5/8" Commercial Metered	1,203,630	2.23	2,684	28	336	28.16	9,462	12,146
1" Commercial Metered	3,031,860	2.23	6,761	6	72	70.39	5,068	11,829
1.5" Commercial Metered	840,430	2.23	1,874	5	60	140.79	8,447	10,322
2" Commercial Metered	567,800	2.23	1,266	1	12	225.26	2,703	3,969
4" Commercial Metered	300	2.23	1	1	12	703.93	8,447	8,448
Total	101,448,446		226,230	1,617	19,404		574,798	801,028

**White Oak Planation/Lee
Forest/Winston
Planation/Winston Point**

5/8" Residential Metered	27,303,660	2.28	62,252	571	6,852	28.16	192,952	255,205
1.5" Commercial Metered	221,000	2.28	504	1	12	140.79	1,689	2,193
Total	27,524,660		62,756	572	6,864		194,642	257,398

Yorktown

5/8" Residential Metered	3,820,510	5.01	19,141	105	1,260	28.16	35,482	54,622
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Carolina Water Service, Inc. of North Carolina
Docket No. W-354, Sub 360
For the 12 Months Ending December 31, 2017

Casselberry
Exhibit No. 11
Page 5 of 5

Public Staff's Revenue at Proposed Rates

Purchased water

Woodrun

Billing Type	Usage	Usage Rate	Usage Revenue	EOP Customers	EOP x 12 months	Base Charge	Base Charge Revenue	Total Revenue
5/8" Residential Metered	16,592,047	3.19	52,929	457	5,484	28.16	154,429	207,358
5/8" Commercial Metered	50,360	3.19	161	4	48	28.16	1,352	1,512
1" Commercial Metered	282,424	3.19	901	1	12	70.39	845	1,746
Total	16,924,831		53,990	462	5,544		156,626	210,616
Woodrun (semi annually)				682	1,364	24.65	33,623	33,623
Total	16,924,831		53,990	1,144	6,908		190,248	244,239

Zemosa Acres

5/8" Residential Metered	11,902,225	5.27	62,725	240	2,880	28.16	81,101	143,826
5/8" Residential Metered	69,960	5.27	369	1	12	28.16	338	707
1" Residential Metered	92,124	5.27	485	2	24	70.39	1,689	2,175
1" Commercial Metered	83,327	5.27	439	1	12	70.39	845	1,284
Total	12,147,636		64,018	244	2,928		83,973	147,991

TOTAL	1,235,777,319		9,396,352	29,878	345,006		10,036,004	19,432,356
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Public Staff's Revenue at Present Rates

CWSNC Sewer									
Billing		Adusted							
Type	Usage	Usage CGF 1.01236	Usage Rate	Usage Revenue	EOP Customers	EOP x 12 months	Base Charge	Base Charge Revenue	Total Revenue
Residential Flat, Sewer			-	-	2,120	25,440	56.57	1,439,141	1,439,141
5/8" Residential Metered	362,376,141	366,855,110	3.11	1,140,919	9,546	114,552	45.97	5,265,955	6,406,875
1" Res Metered	732,140		3.11	2,277	19	228	45.97	10,481	12,758
1.5" Res Metered	-		3.11	-	-	-	45.97	-	-
2" Res Metered	74,200		3.11	231	3	36	45.97	1,655	1,886
Total	363,182,481			1,143,427	9,568	114,816		5,278,092	6,421,519
Commercial Flat Rate			-	-	54	648	56.57	36,657	36,657
5/8" Commercial Metered	25,180,643		3.11	78,312	418	5,016	45.97	230,586	308,897
1" Commercial Metered	4,408,173		3.11	13,709	12	144	114.93	16,550	30,259
1.5" Commercial Metered	4,652,940		3.11	14,471	10	120	229.85	27,582	42,053
2" Commercial Metered	19,407,344		3.11	60,357	48	576	367.76	211,830	272,187
3" Commercial Metered	8,455,966		3.11	26,298	4	48	689.55	33,098	59,396
4" Commercial Metered	904,300		3.11	2,812	1	12	1,149.25	13,791	16,603
6" Commercial Metered	3,922,510		3.11	12,199	2	24	2,298.50	55,164	67,363
Total	66,931,876			208,158	549	6,588		625,258	833,416
Regalwood/White Oaks	-			-	1,061	12,732	56.57	720,249	720,249
White Oaks School	-			-	1	12	1,770.10	21,241	21,241
Child Castle Daycare	-			-	1	12	219.90	2,639	2,639

Carolina Water Service, Inc. of North Carolina
Docket No. W-354, Sub 360
For the 12 Months Ending December 31, 2017

Casse berry
Exh bit No. 12
Page 2 of 5

Public Staff's Revenue at Present Rates

CWSNC Sewer									
Billing		Adusted							
Type	Usage	Usage	Usage	Usage	EOP	EOP	Base	Base Charge	Total
		CGF 1.01236	Rate	Revenue	Customers	x 12 months	Charge	Revenue	Revenue
Availibility Conneestee	-		-	-	260	3,120	4.70	14,664	14,664
Total	430,114,357			1,351,585	13,560	162,720		8,101,284	9,452,869
Purchased Water									
Mount Carmel	15,998,846	16,196,592	5.88	95,236	381	4,572	43.52	198,973	294,209
College Park									
Residential Flat, Sewer only	-		-	-	1	12	56.57	679	679
5/8" Residential Metered	2,230,510	2,258,079	5.70	12,871	51	612	36.75	22,491	35,362
Total	2,230,510			12,871	52	624		23,170	36,041
Kings Grant									
5/8" Residential Metered	8,043,531	8,142,949	3.80	30,943	180	2,160	36.75	79,380	110,323
1" Res Metered	223,570		3.80	850	1	12	36.75	441	1,291
Total	8,267,101			31,793	181	2,172		79,821	111,614
White Oak Plantation/Lee Forest/Winston Pointe									
5/8" Residential Metered	22,212,210	22,486,753	4.82	108,386	478	5,736	36.75	210,798	319,184

Carolina Water Service, Inc. of North Carolina
Docket No. W-354, Sub 360
For the 12 Months Ending December 31, 2017

Casse berry
Exh bit No. 12
Page 3 of 5

Public Staff's Revenue at Present Rates

CWSNC Sewer

Billing Type	Usage	Adusted Usage CGF 1.01236	Usage Rate	Usage Revenue	EOP Customers	EOP x 12 months	Base Charge	Base Charge Revenue	Total Revenue
Fairfield Mountain									
5/8" Res. Collection/Treatm.				-	399	4,788	106.25	508,725	508,725
1" Res Collection/Treatm.				-	12	144	106.25	15,300	15,300
Residential Collection				-	411	4,932		524,025	524,025
ww only flt	-		13.93	-	2	24	106.25	2,550	2,550
Small Commercial	457,920		13.93	6,378.83	7	84	78.50	6,594	12,973
Medium Commercial	2,219,380		13.93	30,915.96	11	132	139.50	18,414	49,330
Large Commercial	370,720		13.93	5,164.13	3	36	219.50	7,902	13,066
Nonresidential Metered	3,048,020.00			42,458.92	23.00	276.00		35,460.00	77,918.92
Total	3,048,020			42,459	434	5,208		559,485	601,944

Billing Type	Usage		Usage Rate	Usage Revenue	EOP Customers	EOP x 12 months	Base Charge	Base Charge Revenue	Total Revenue
CL/MS									
5/8" Residential Sewer	41,941,083	42,459,475	6.62	281,082	781	9,372	52.06	487,906	768,988
1" Residential Sewer	10,117,960		6.62	66,981	90	1,080	130.15	140,562	207,543
Total residential	52,059,043			348,063	871	10,452		628,468	976,531

Public Staff's Revenue at Present Rates

CWSNC Sewer

Billing Type	Usage	Adusted Usage CGF 1.01236	Usage Rate	Usage Revenue	EOP Customers	EOP x 12 months	Base Charge	Base Charge Revenue	Total Revenue
CL/MS									
5/8" Commercial Sewer	6,965,110		6.62	46,109	67	804	52.06	41,856	87,965
1" Commercial Sewer	3,164,690		6.62	20,950	19	228	130.15	29,674	50,624
1.5" Commercial Sewer	1,000,000		6.62	6,620	3	36	260.31	9,371	15,991
2" Commercial Sewer	1,578,400		6.62	10,449	2	24	416.49	9,996	20,445
3" Commercial Sewer	72,000		6.62	477	1	12	780.92	9,371	9,848
Total	64,839,243			432,668	963	11,556		728,737	1,161,404

Billing Type	Usage	Adusted Usage CGF 1.01236	Usage Rate	Usage Revenue	EOP Customers	EOP x 12 months	Base Charge	Base Charge Revenue	Total Revenue
Sapphire valley									
5/8" Residential Sewer	-		3.11	-	645	7,740	56.57	437,852	437,852
1" Residential Sewer	-		3.11	-	2	24	56.57	1,358	1,358
1.5" Residential Sewer	-		3.11	-	128	1,536	56.57	86,892	86,892
2" Residential Sewer	-		3.11	-	68	816	56.57	46,161	46,161
5/8" Commercial Sewer	1,692,720		3.11	5,264	19	228	45.97	10,481	15,746
1" Commercial Sewer	791,279		3.11	2,461	3	36	114.93	4,137	6,598
1.5" Commercial Sewer	877,016		3.11	2,728	2	24	229.85	5,516	8,244

Carolina Water Service, Inc. of North Carolina
Docket No. W-354, Sub 360
For the 12 Months Ending December 31, 2017

Casse berry
Exh bit No. 12
Page 5 of 5

Public Staff's Revenue at Present Rates

CWSNC Sewer

Billing Type	Usage	Adusted Usage CGF 1.01236	Usage Rate	Usage Revenue	EOP Customers	EOP x 12 months	Base Charge	Base Charge Revenue	Total Revenue
Sapphire valley									
2" Commercial Sewer	2,401,171		3.11	7,468	6	72	367.76	26,479	33,946
3" Commercial Sewer	1,321,926		3.11	4,111	1	12	689.55	8,275	12,386
Avaiability					91	1,092	8.30	9,064	9,064
Total	7,084,112			22,032	965	11,580		636,214	658,246

Billing Type	Usage	Adusted Usage CGF 1.01236	Usage Rate	Usage Revenue	EOP Customers	EOP x 12 months	Base Charge	Base Charge Revenue	Total Revenue
Elk River									
5/8" Residential Metered	1,842,376	1,865,148	3.00	5,595	116	1,392	23.38	32,545	38,140
1" Res Residential Metered	110,492		3.00	331	4	48	58.45	2,806	3,137
Total Residential Metered	1,952,868			34	120	1,440		35,351	41,277
5/8" Commercial Metered	201,118		3.00	603	2	24	23.38	561	1,164
1" Commercial Metered	476,855		3.00	1,431	1	12	58.45	701	2,132
2" Commercial Metered	401,259		3.00	1,204	2	24	187.05	4,489	5,693
Total Commercial Metered	1,079,232			3,238	5	60		5,752	8,989
Total	3,032,100			3,272	125	1,500		41,102	50,267
Grand Total	556,826,499			2,100,301	17,139	205,668		10,579,584	12,685,778

Public Staff's Revenue at Proposed Rates

CWSNC Sewer									
Billing		Adjusted							
Type	Usage	Usgae CGF 1.01236	Usage Rate	Usage Revenue	EOP Customers	EOP x 12 months	Base Charge	Base Charge Revenue	Total Revenue
Residential Flat, Sewer			-	-	2,120	25,440	61.65	1,568,376	1,568,376
5/8" Res Metered	362,376,141	366,855,110	3.39	1,243,639	9,546	114,552	50.10	5,739,055	6,982,694
1" Res Metered	732,140		3.39	2,482	19	228	50.10	11,423	13,905
1.5" Res Metered	-		3.39	-	-	-	50.10	-	-
2" Res Metered	74,200		3.39	252	3	36	50.10	1,804	2,055
Total	363,182,481			1,246,372	9,568	114,816		5,752,282	6,998,654
Commercial Flat Rate			-	-	54	648	61.65	39,949	39,949
5/8" Commercial Metered	25,180,643		3.39	85,362	418	5,016	50.10	251,302	336,664
1" Commercial Metered	4,408,173		3.39	14,944	12	144	125.25	18,036	32,980
1.5" Commercial Metered	4,652,940		3.39	15,773	10	120	250.50	30,060	45,833
2" Commercial Metered	19,407,344		3.39	65,791	48	576	400.80	230,861	296,652
3" Commercial Metered	8,455,966		3.39	28,666	4	48	751.50	36,072	64,738
4" Commercial Metered	904,300		3.39	3,066	1	12	1,252.50	15,030	18,096
6" Commercial Metered	3,922,510		3.39	13,297	2	24	2,504.99	60,120	73,417
Total	66,931,876			226,899	549	6,588		681,429	908,328
Regalwood/White Oaks	-			-	1,061	12,732	61.65	784,928	784,928
White Oaks School	-			-	1	12	1,929.12	23,149	23,149
Child Castle Daycare	-			-	1	12	239.66	2,876	2,876

Carolina Water Service, Inc. of North Carolina
Docket No. W-354, Sub 360
For the 12 Months Ending December 31, 2017

Casselberry
Exhibit No. 13
Page 2 of 5

Public Staff's Revenue at Proposed Rates

Billing Type	Usage	Adjusted Usgae CGF 1.01236	Usage Rate	Usage Revenue	EOP Customers	EOP x 12 months	Base Charge	Base Charge Revenue	Total Revenue
Avalability Connestee	-		-	-	260	3,120	4.70	14,664	14,664
Total	430,114,357			1,473,271	13,560	162,720		8,827,704	10,300,975

Purchased Water

Billing Type	Usage		Usage Rate	Usage Revenue	EOP Customers	EOP x 12 months	Base Charge	Base Charge Revenue	Total Revenue
Mount Carmel	15,998,846	16,196,592	5.88	95,236	381	4,572	46.82	214,061	309,297

College Park

Residential Flat, Sewer only	-		-	-	1	12	61.65	740	740
5/8" Residential Metered	2,230,510	2,258,079	5.70	12,871	51	612	40.05	24,511	37,382
Total	2,230,510			12,871	52	624		25,250	38,121

Kings Grant

5/8" Residential Metered	8,043,531	8,142,949	3.80	30,943	180	2,160	40.05	86,508	117,451
1" Res Metered	223,570		3.80	850	1	12	40.05	481	1,330
Total	8,267,101			31,793	181	2,172		86,989	118,781

White Oak Plantation/Lee Forest/Winston Pointe

5/8" Residential Metered	22,212,210	22,486,753	4.82	108,386	478	5,736	40.05	229,727	338,113
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Carolina Water Service, Inc. of North Carolina
Docket No. W-354, Sub 360
For the 12 Months Ending December 31, 2017

Casselberry
Exhibit No. 13
Page 3 of 5

Public Staff's Revenue at Proposed Rates

Billing Type	Usage	Adjusted Usgae CGF 1.01236	Usage Rate	Usage Revenue	EOP Customers	EOP x 12 months	Base Charge	Base Charge Revenue	Total Revenue
Fairfield Mountain									
5/8" Res. Collection/Treatm.				-	399	4,788	109.55	524,525	524,525
1" Res Collection/Treatm.				-	12	144	109.55	15,775	15,775
Residential Collection				-	411	4,932		540,301	540,301
ww only flt	-		13.93	-	2	24	109.55	2,629	2,629
Small Commercial	457,920		13.93	6,378.83	7	84	78.50	6,594	12,973
Medium Commercial	2,219,380		13.93	30,915.96	11	132	139.50	18,414	49,330
Large Commercial	370,720		13.93	5,164.13	3	36	219.50	7,902	13,066
Nonresidential Metered	3,048,020			42,458.92	23.00	276.00		35,539.20	77,998.12
Total	3,048,020			42,459	434	5,208		575,840	618,299

Billing Type	Usage		Usage Rate	Usage Revenue	EOP Customers	EOP x 12 months	Base Charge	Base Charge Revenue	Total Revenue
CL/MS									
5/8" Residential Sewer	41,941,083	42,459,475	6.62	281,082	781	9,372	52.06	487,906	768,988
1" Residential Sewer	10,117,960		6.62	66,981	90	1,080	130.15	140,562	207,543
5/8" Commercial Sewer	6,965,110		6.62	46,109	67	804	52.06	41,856	87,965
1" Commercial Sewer	3,164,690		6.62	20,950	19	228	130.15	29,674	50,624
1.5" Commercial Sewer	1,000,000		6.62	6,620	3	36	260.31	9,371	15,991

Carolina Water Service, Inc. of North Carolina
Docket No. W-354, Sub 360
For the 12 Months Ending December 31, 2017

Casselberry
Exhibit No. 13
Page 4 of 5

Public Staff's Revenue at Proposed Rates

Billing Type	Usage	Adjusted Usgae CGF 1.01236	Usage Rate	Usage Revenue	EOP Customers	EOP x 12 months	Base Charge	Base Charge Revenue	Total Revenue
CL/MS									
2" Commercial Sewer	1,578,400		6.62	10,449	2	24	416.49	9,996	20,445
3" Commercial Sewer	72,000		6.62	477	1	12	780.92	9,371	9,848
Total	64,839,243			432,668	963	11,556		728,737	1,161,404

Billing Type	Usage	Usage Rate	Usage Revenue	EOP Customers	EOP x 12 months	Base Charge	Base Charge Revenue	Total Revenue
Sapphire valley								
5/8" Residential Sewer	-	3.39	-	645	7,740	61.65	477,171	477,171
1" Residential Sewer	-	3.39	-	2	24	61.65	1,480	1,480
1.5" Residential Sewer	-	3.39	-	128	1,536	61.65	94,694	94,694
2" Residential Sewer	-	3.39	-	68	816	61.65	50,306	50,306
5/8" Commercial Sewer	1,692,720	3.39	5,738	19	228	50.10	11,423	17,161
1" Commercial Sewer	791,279	3.39	2,682	3	36	125.25	4,509	7,191
1.5" Commercial Sewer	877,016	3.39	2,973	2	24	250.50	6,012	8,985
2" Commercial Sewer	2,401,171	3.39	8,140	6	72	400.80	28,858	36,998
3" Commercial Sewer	1,321,926	3.39	4,481	1	12	751.50	9,018	13,499
Avaibility				91	1,092	8.30	9,064	9,064
Total	7,084,112		24,015	965	11,580		692,534	716,550

Carolina Water Service, Inc. of North Carolina
Docket No. W-354, Sub 360
For the 12 Months Ending December 31, 2017

Casselberry
Exhibit No. 13
Page 5 of 5

Public Staff's Revenue at Proposed Rates

Billing		Adjusted	Usage	Usage	EOP	EOP	Base	Base Charge	Total
Type	Usage	Usgae CGF 1.01236	Rate	Revenue	Customers	x 12 months	Charge	Revenue	Revenue
Elk River									
5/8" Residential Metered	1,842,376	1,865,148	3.39	6,323	116	1,392	50.10	69,739	76,062
1" Res Residential Metered	110,492		3.39	375	4	48	50.10	2,405	2,779
Total Residential Metered	1,952,868			34	120	1,440		72,144	78,841
5/8" Commercial Metered	201,118		3.39	682	2	24	50.10	1,202	1,884
1" Commercial Metered	476,855		3.39	1,617	1	12	125.25	1,503	3,120
2" Commercial Metered	401,259		3.39	1,360	2	24	400.80	9,619	10,979
Total Commercial Metered	1,079,232			3,659	5	60		12,325	15,983
Total	3,032,100			3,693	125	1,500		84,469	94,825
Total	556,826,499			2,224,392	17,139	205,668		11,465,310	13,696,365

Carolina Water Service, Inc. of North Carolina
Docket No. W-354, Sub 360
For the 12 Months December 31, 2017

Casselberry
Exhibit No. 14
Page 1 of 1

Public Staff's Revenue at Present Rates

WATER

Treasure Cove/Bradfield Farms/Fairfield Harboour

Billing Type	Usage	Usage Rate	Usage Revenue	EOP Customers	EOP x 12 months	Base Charge	Base Charge Revenue	Total Revenue
5/8" Residential Metered	153,145,422	3.36	514,569	3,132	37,584	11.44	429,961	944,530
3/4" Residential Metered	6,101,160	3.36	20,500	99	1,188	11.44	13,591	34,091
1" Residential Metered	261,214	3.36	878	3	36	28.60	1,030	1,907
2" Residential Metered	76,700	3.36	258	1	12	91.52	1,098	1,356
Total Residential Metered	159,584,496		536,204	3,235	38,820		445,680	981,883
5/8" Commercial Metered	1,625,315	3.36	5,461	23	276	11.44	3,157	8,618
1" Commercial Metered	430,353	3.36	1,446	6	72	28.60	2,059	3,505
1.5" Commercial Metered	513,000	3.36	1,724	2	24	57.20	1,373	3,096
2" Commercial Metered	260,890	3.36	877	3	36	91.52	3,295	4,171
Total Commercial Metered	2,829,558		9,507	34	408		9,884	19,391
Availability				1,064	12,762	3.28	41,859	41,859
Total	162,414,054		545,711	4,333	51,990		497,423	1,043,134

Carolina Water Service, Inc. of North Carolina
Docket No. W-354, Sub 360
For the 12 Months December 31, 2017

Casselberry
Exhibit No. 15
Page 1 of 1

Public Staff's Revenue at Proposed Rates

WATER

Treasure Cove/Bradfield Farms/Fairfield Harboour

Billing Type	Usage	Usage Rate	Usage Revenue	EOP Customers	EOP x 12 months	Base Charge	Base Charge Revenue	Total Revenue
5/8" Residential Metered	153,145,422	4.92	753,475	3,132	37,584	18.08	679,519	1,432,994
3/4" Residential Metered	6,101,160	4.92	30,018	99	1,188	18.08	21,479	51,497
1" Residential Metered	261,214	4.92	1,285	3	36	45.21	1,628	2,913
2" Residential Metered	76,700	4.92	377	1	12	144.67	1,736	2,113
Total Residential Metered	159,584,496		785,156	3,235	38,820		704,361	1,489,517
5/8" Commercial Metered	1,625,315	4.92	7,997	23	276	18.08	4,990	12,987
1" Commercial Metered	430,353	4.92	2,117	6	72	45.21	3,255	5,372
1.5" Commercial Metered	513,000	4.92	2,524	2	24	90.42	2,170	4,694
2" Commercial Metered	260,890	4.92	1,284	3	36	144.67	5,208	6,492
Total Commercial Metered	2,829,558		13,921	34	408		15,623	29,545
Availability				1,064	12,762	3.28	41,859	41,859
Total	162,414,054		799,077	4,333	51,990		761,844	1,560,921

Carolina Water Service, Inc. of North Carolina
Docket No. W-354, Sub 360
For the 12 Months Ending December 31, 2017

Casselberry
Exhibit No. 16
Page 1 of 1

Public Staff's Revenue at Present Rates

Sewer

Fairfield Harbour and Bradfield Farms

Billing Type	Usage	Usage Rate	Usage Revenue	EOP Customers	EOP x 12 months	Base Charge	Base Charge Revenue	Total Revenue
5/8" Residential Metered				2,910	34,920	41.40	1,445,688	1,445,688
Multiple units				3	36	41.40	1,490	1,490
Bulk Sewer				158	1,896	40.40	76,598	76,598
Apartments				379	4,548	40.40	183,739	183,739
Total Residential				3,450	41,400		1,707,516	1,707,516
5/8" Commercial Metered	1,232,960	6.20	7,644	15	180	11.12	2,002	9,646
1" Commercial Metered	1,919,578	6.20	11,901	3	36	33.36	1,201	13,102
1.5" Commercial Metered	513,000	6.20	3,181	2	24	55.60	1,334	4,515
2" Commercial Metered	86,190	6.20	534	1	12	88.96	1,068	1,602
Total Commercial				21	252		5,604	28,865
Total				3,471	41,652		1,713,120	1,736,381
Availability				1,050	12,594	2.65	33,374	33,374
Total				4,521	54,246		1,746,495	1,769,755

Carolina Water Service, Inc. of North Carolina
Docket No. W-354, Sub 360
For the 12 Months Ending December 31, 2017

Casselberry
Exhibit No. 17
Page 1 of 1

Public Staff's Revenue at Proposed Rates

Sewer

Fairfield Harbour and Bradfield Farms

Billing Type	Usage	Usage Rate	Usage Revenue	EOP Customers	EOP x 12 months	Base Charge	Base Charge Revenue	Total Revenue
5/8" Residential Metered				2,910	34,920	50.81	1,774,285	1,774,285
Multiple units				3	36	50.81	1,829	1,829
Bulk Sewer				158	1,896	50.81	96,336	96,336
Apartments				379	4,548	49.81	226,536	226,536
Total Residential				3,450	41,400		2,098,986	2,098,986
5/8" Commercial Metered	1,232,960	6.36	7,842	15	180	13.65	2,457	10,299
1" Commercial Metered	1,919,578	6.36	12,209	3	36	40.95	1,474	13,683
1.5" Commercial Metered	513,000	6.36	3,263	2	24	68.24	1,638	4,900
2" Commercial Metered	86,190	6.36	548	1	12	109.18	1,310	1,858
Total Commercial	3,751,728		23,861	21	252		6,879	30,740
Total	3,751,728		23,861	3,471	41,652		2,105,865	2,129,726
Availability				1,050	12,594	2.65	33,374	33,374
Total	3,751,728		23,861	4,521	54,246		2,139,239	2,163,100

Carolina Water Service, Inc. of North Carolina
Docket No. W-354, Sub 360
Test Year Ending December 31, 2017

Casse berry
Exh bit No. 18
Page 1 of 1

Purchased Water Adjustment for Water Loss

Service Area	Total Gallons Purchased	Total Gallons Sold	Loss	20% Loss	Sold Plus 20% loss	Loss at 20%	Reduction In gallons	Usage Rate per 1000 gal.	Adjusted Expense
Carolina Forest	21,149,345	7,147,257	14,002,088	66.21	8,934,071	1,786,814	12,215,273.75	3.19	38,967
High Vista Estates	17,582,200	11,273,640	6,308,560	35.88	14,092,050	2,818,410	3,490,150.00	3.25	11,343
Riverpointe	15,854,172	15,035,449	818,723	5.16					
Whispering Pines	133,017,887	101,448,446	31,569,441	23.73	126,810,558	25,362,112	6,207,329.50	2.23	13,842
Woodrun	23,641,300	16,924,831	6,716,469	28.41	21,156,039	4,231,208	2,485,261.25	3.19	7,928
Zemosa Acres	16,121,250	12,147,636	3,973,614	24.65	15,184,545	3,036,909	936,705.00	5.27	4,936
Yorktown	4,179,221	3,820,510	358,711	8.58					
White Oak	27,364,610	27,524,660	(160,050)	-0.58					
Carolina Trace	69,032,247	61,979,135	7,053,112	10.22					
						Total Loss			77,016

Carolina Water Service, Inc. of North Carolina
Docket No. W-354, Sub 360
Test Year Ending December 31, 2017

Casselberry
Exhibit No. 19
Page 1 of 1

Purchased Water Summary

Acct #	Service Area	Public	Public	Public Staff	Company	Correction	Company's	Public Staff
		Staff	Staff	Corrected	Ledger		Adjustment	
		Invoices	Adjustments	Invoices	Total	to ledger	for	Company
							Dec Accrual	Total
182104	The Point	193,721.14	-	193,721.14	236,916.24		43,195.10	193,721.14
114	Zemosa	87,726.17	-	87,726.17	75,241.10	6,495.07	(5,990.00)	87,726.17
125	Willow Brook	3,680.11	-	3,680.11	3,780.11		100.00	3,680.11
132	Vander	54,368.89	-	54,368.89	53,791.34	122.45	(700.00)	54,368.89
133	White oak	63,317.76	-	63,317.76	64,317.76		1,000.00	63,317.76
137	Bent Creek	50,978.12	-	50,978.12	51,278.12		300.00	50,978.12
141	Whispering P	296,628.73	-	296,628.73	291,828.73	(17,800.00)	(22,600.00)	296,628.73
152	C. Forest	59,957.90	-	59,957.90	57,857.90	-	(2,100.00)	59,957.90
153	Woodrun	62,902.87	6,854.35	69,757.22	71,757.22	1,000.00	3,000.00	69,757.22
154	Kings Grant	13,877.74		13,877.74	14,277.74		400.00	13,877.74
170	Yorktown	14,923.95	9,115.03	24,038.98	14,923.95	9,115.03	-	24,038.98
189	Danby	130,727.55	-	130,727.55	112,947.81	8,479.74	(9,300.00)	130,727.55
214	High Vista	56,227.26	-	56,227.26	68,054.09	(17,726.83)	(5,900.00)	56,227.26
235	Riverpoint	100,977.31	-	100,977.31	96,977.31	-	(4,000.00)	100,977.31
187100	Carolina Trace	153,963.72	-	153,963.72	153,963.72	-	-	153,963.72
196100	River Bend	39,913.40	(39,913.38)	-	39,913.40	(39,913.40)	-	-
		1,383,892.62	(23,944.00)	1,359,948.60	1,407,826.54	(50,227.94)		1,359,948.60
	Water loss			(77,016.00)				
	Total Purchased Water			1,282,932.60				

Carolina Water Service, Inc. of North Carolina
Docket No. W-354, Sub 360
Test Year Ending December 31, 2017

Casselberry
Exhibit No. 20
Page 1 of 1

Purchased Sewer Summary

Acct #	Service Area	Public	Public	Public Staff	Company	Correction	Company's	Public Staff
		Staff	Staff	Corrected	Ledger	to	Adjustment	Company
		Invoices	Adjustments	Invoices	Total	Ledger	for	Total
							Dec Accrual	
182160	Colledge Park	27,070.56	-	27,070.56	27,170.56	-	100.00	27,070.56
182155	Kings Grant	19,183.05	-	19,183.05	19,283.05	-	100.00	19,183.05
183109	Fairfield Mt.	399,692.00	-	399,692.00	399,653.00	139.00	100.00	399,692.00
182140	Mt. Carmel	129,241.68	-	129,241.68	129,841.68	10,800.00	(10,200.00)	129,241.68
182247	Ridges at Mt. H.	9,153.91	573.53	9,727.44	9,552.04	424.60	(600.00)	9,727.44
182134	White Oak	95,827.10	-	95,827.10	97,227.10		1,400.00	95,827.10
Total Purchased Sewer		680,168.30	573.53	680,741.83	682,727.43	11,363.60		680,741.83

Water Testing Costs

Uniform Service Areas (less Fairfield Harbour, Bradfield Farms and Treasure Cove)

Water Analysis	# of Samples Required	Frequency	Tests Per Year	Cost Per Test	Annual Cost
Bacteriological	14	Monthly	168.00	\$20.00	\$3,360
Bacteriological	12	Monthly	144.00	\$21.00	\$3,024
Bacteriological	40	Monthly	480.00	\$22.00	\$10,560
Bacteriological	33	Monthly	396.00	\$25.00	\$9,900
Bacteriological	15	Monthly	180.00	\$26.25	\$4,725
Bacteriological	7	Monthly	84.00	\$35.00	\$2,940
Bacteriological	7	Monthly	84.00	\$50.00	\$4,200
HPC	4	Monthly	48.00	\$50.00	\$2,400
DBP stage 2	54	Every 3 yrs	18.00	\$153.61	\$2,765
DBP stage 2	44	Annual	44.00	\$153.61	\$6,759
DBP stage 2	27	Quarterly	108.00	\$153.61	\$16,590
Lead/Copper	715	Every 3 yrs	238.33	\$24.25	\$5,780
Lead/Copper	5	Annually	5.00	\$24.25	\$121
Lead/Copper	10	6 months	20.00	\$24.25	\$485
Asbestos	50	Every 9 yrs	5.56	\$123.00	\$683
Inorganics	214	Every 3 yrs	71.33	\$214.62	\$15,310
Chloride	2	Annual	2.00	\$13.00	\$26
Nitrate	205	Annual	205.00	\$13.00	\$2,665
Nitrate	9	Quarterly	36.00	\$13.00	\$468
VOC	182	Every 3 yrs	60.67	\$105.10	\$6,376
VOC	20	Annually	20.00	\$105.10	\$2,102
VOC	12	Quarterly	48.00	\$105.10	\$5,045
SOC - Complete	233	Every 3 yrs	77.67	\$613.72	\$47,666
SOC - Complete	1	annually	1.00	\$613.72	\$614
SOC (505 & 506)	6	annually	6.00	\$86.73	\$520
SOC (550)	1	Quarterly	4.00	\$86.73	\$347
SOC 515	1	Quarterly	4.00	\$93.34	\$373
Rads-Gross Alpha	161	Every 9 yrs	17.89	\$55.00	\$984
Rads-Gross Alpha	40	Every 6 yrs	6.67	\$55.00	\$367
Rads-Gross Alpha	6	Every 3 yrs	2.00	\$55.00	\$110
Rads-Gross Alpha	4	annually	4.00	\$55.00	\$220
Rads-Gross Alpha	2	Quarterly	8.00	\$55.00	\$440
Rads-Uranium	139	Every 9 yrs	15.44	\$50.00	\$772
Rads-Uranium	57	Every 6 yrs	9.50	\$50.00	\$475
Rads-Uranium	9	Every 3 yrs	3.00	\$50.00	\$150
Rads-Uranium	5	annually	5.00	\$50.00	\$250
Rads-Uranium	3	Quarterly	12.00	\$50.00	\$600
Combined Rad (228 & 226)	158	Every 9 yrs	17.56	\$170.00	\$2,984
Combined Rad (228 & 226)	32	Every 6 yrs	5.33	\$170.00	\$907
Combined Rad (228 & 226)	10	Every 3 yrs	3.33	\$170.00	\$567
Combined Rad (228 & 226)	8	annually	8.00	\$170.00	\$1,360
Combined Rad (228 & 226)	5	Quarterly	20.00	\$170.00	\$3,400

Total (All systems on Stage 2 DBP monitoring): \$169,389

Water Testing Costs

Fairfield Harbour

Water Analysis	# of Samples Required	Frequency	Tests Per Year	Cost Per Test	Annual Cost
Bacteriological	5	Monthly	60.00	\$22.00	\$1,320
DBP stage 2	2	Quarterly	8.00	\$153.61	\$1,229
Lead/Copper	20	Every 3 yrs	6.67	\$24.25	\$162
Asbestos	1	Every 9 yrs	0.11	\$123.00	\$14
Inorganics	1	Every 3 yrs	0.33	\$214.62	\$72
Chloride	3	Annual	3.00	\$13.00	\$39
Nitrate	1	Annual	1.00	\$13.00	\$13
VOC	1	Every 3 yrs	0.33	\$105.10	\$35
SOC - Complete	2	Every 3 yrs	0.67	\$613.72	\$409
Rads-Gross Alpha	1	Every 9 yrs	0.11	\$55.00	\$6
Rads-Uranium	1	Every 9 yrs	0.11	\$50.00	\$6
Combined Rad (228 & 226)	1	Every 9 yrs	0.11	\$170.00	\$19

Total Fairfield Harbour: \$3,322

Bradfield Farms

Water Analysis	# of Samples Required	Frequency	Tests Per Year	Cost Per Test	Annual Cost
Bacteriological	3	Monthly	36.00	\$21.00	\$756
DBP stage 2	1	Annual	1.00	\$153.61	\$154
Lead/Copper	10	Every 3 yrs	3.33	\$24.25	\$81
Asbestos	1	Every 9 yrs	0.11	\$123.00	\$14
Inorganics	6	Every 3 yrs	2.00	\$214.62	\$429
Nitrate	6	Annual	6.00	\$13.00	\$78
VOC	6	Every 3 yrs	2.00	\$105.10	\$210
SOC - Complete	6	Every 3 yrs	2.00	\$613.72	\$1,227
Rads-Gross Alpha	4	Every 9 yrs	0.44	\$55.00	\$24
Rads-Gross Alpha	2	Every 6 yrs	0.33	\$55.00	\$18
Rads-Uranium	3	Every 9 yrs	0.33	\$50.00	\$17
Rads-Uranium	3	Every 6 yrs	0.50	\$50.00	\$25
Combined Rad (228 & 226)	5	Every 9 yrs	0.56	\$170.00	\$94
Combined Rad (228 & 226)	1	Every 6 yrs	0.17	\$170.00	\$28

Total Bradfield Farms: \$3,156

Treasure Cove

Water Analysis	# of Samples Required	Frequency	Tests Per Year	Cost Per Test	Annual Cost
Bacteriological	1	Monthly	12.00	\$25.00	\$300
DBP stage 2	1	Annual	1.00	\$153.61	\$154
Lead/Copper	10	Every 3 yrs	3.33	\$24.25	\$81
Asbestos	1	Every 9 yrs	0.11	\$123.00	\$14
Inorganics	2	Every 3 yrs	0.67	\$214.62	\$143
Nitrate	2	Annual	2.00	\$13.00	\$26
VOC	2	Every 3 yrs	0.67	\$105.10	\$70
SOC - Complete	2	Every 3 yrs	0.67	\$613.72	\$409
Rads-Gross Alpha	2	Every 9 yrs	0.22	\$55.00	\$12
Rads-Uranium	2	Every 9 yrs	0.22	\$50.00	\$11
Combined Rad (228 & 226)	2	Every 9 yrs	0.22	\$170.00	\$38

Total Treasure Cove \$1,258

Total Non-Uniform

\$7,736

Wastewater Testing

	Testing Costs 10	# of Samples Required	Frequency	Tests Per Year	Cost Per Test	Annual Cost
	Wastewater Analysis					
Abington	BOD	1	Weekly	52	\$ 25.00	\$ 1,300
	Total Suspended Solids (TSS)	1	Weekly	52	\$ 15.00	\$ 780
	Ammonia Nitrogen (NH ₃ as N)	1	Weekly	52	\$ 15.00	\$ 780
	Fecal Coliform	1	Weekly	52	\$ 10.00	\$ 520
	Total Nitrogen (NN/TKN) (Qtrly)	4	Annually	4	\$ 40.00	\$ 160
	Total Phosphorus (Qtrly)	4	Annually	4	\$ 15.00	\$ 60
Amherst	BOD	1	Weekly	52	\$ 22.31	\$ 1,160
	Total Suspended Solids (TSS)	1	Weekly	52	\$ 12.61	\$ 656
	Ammonia Nitrogen (NH ₃ as N)	1	Weekly	52	\$ 17.46	\$ 908
	Fecal Coliform	1	Weekly	52	\$ 18.43	\$ 958
	Total Nitrogen (NN/TKN)	2	Monthly	24	\$ 33.95	\$ 815
	Total Phosphorus	2	Monthly	24	\$ 17.46	\$ 419
	Sludge Testing (for land application)	1	Annually	1	\$ 1,953.34	\$ 1,953
Ashley Hills	BOD (3/week effluent)	3	Weekly	156	\$ 22.31	\$ 3,480
	BOD (1 @ each of 3 plants once per month)	3	Monthly	36	\$ 22.31	\$ 803
	Total Suspended Solids (TSS)	3	Weekly	156	\$ 12.61	\$ 1,967
	Ammonia Nitrogen (NH ₃ as N)	3	Weekly	156	\$ 17.46	\$ 2,724
	Fecal Coliform	3	Weekly	156	\$ 18.43	\$ 2,875
	Total Nitrogen (NN/TKN)	1	Weekly	52	\$ 33.95	\$ 1,765
	Total Phosphorus	2	Monthly	24	\$ 17.46	\$ 419
Bear Paw	BOD	1	Weekly	52	\$ 25.00	\$ 1,300
	Total Suspended Solids (TSS)	1	Weekly	52	\$ 15.00	\$ 780
	Ammonia Nitrogen (NH ₃ as N)	2	Monthly	24	\$ 20.00	\$ 480
	Total Nitrogen (NN/TKN)	2	Annually	2	\$ 50.00	\$ 100
	Total Phosphorus	2	Annually	2	\$ 30.00	\$ 60
Belvedere	WWTF Effluent: BOD (2/wk)	2	Weekly	104	\$ 25.00	\$ 2,600
	WWTF Effluent: Fecal Coliform (2/wk)	2	Weekly	104	\$ 25.00	\$ 2,600
	WWTF Effluent: Ammonia Nitrogen (2/wk)	2	Weekly	104	\$ 20.00	\$ 2,080
	WWTF Effluent: Total Nitrogen (NN/TKN) (2/wk)	2	Weekly	104	\$ 55.00	\$ 5,720
	WWTF Effluent: Total Phosphorus (2/wk)	2	Weekly	104	\$ 20.00	\$ 2,080
	WWTF Effluent: TSS (2/wk)	2	Weekly	104	\$ 20.00	\$ 2,080
	WWTF Effluent: Chloride (3/yr)	3	Annually	3	\$ 20.00	\$ 60
	WWTF Effluent: TDS (3/yr)	3	Annually	3	\$ 20.00	\$ 60
	GWLS Eff: BOD (1/wk)	1	Weekly	52	\$ 25.00	\$ 1,300
	GWLS Eff: Fecal Coliform (1/wk)	1	Weekly	52	\$ 25.00	\$ 1,300
	GWLS Eff: Ammonia Nitrogen (1/wk)	1	Weekly	52	\$ 20.00	\$ 1,040
	GWLS Eff: Total Nitrogen (NN/TKN) (1/wk)	1	Weekly	52	\$ 55.00	\$ 2,860
	GWLS Eff: Total Phosphorus (1/wk)	1	Weekly	52	\$ 20.00	\$ 1,040
	GWLS Eff: Chloride (3/yr)	3	Annually	3	\$ 20.00	\$ 60
	GWLS Eff: TDS (3/yr)	3	Annually	3	\$ 20.00	\$ 60
	Lab (Env Chemists) Sample Pick up fee (2/wk)	2	Weekly	104	\$ 10.00	\$ 1,040
	Monitoring Wells (9 total - 3/yr) Depth, Ammonia Nitrogen, Gallons, Odor, TDS, Temp, Chloride, pH, Total Phosphorus, Fecal Coliform, Nitrate Nitrogen	27	Annually	27	\$ 230.00	\$ 6,210
	Sludge Resting	1	Annually	1	\$ 375.00	\$ 375
Bent Creek	BOD	1	Weekly	52	\$ 25.00	\$ 1,300
	Total Suspended Solids (TSS)	1	Weekly	52	\$ 10.00	\$ 520
	Ammonia Nitrogen (NH ₃ as N)	1	Weekly	52	\$ 18.00	\$ 936
	Fecal Coliform	1	Weekly	52	\$ 25.00	\$ 1,300
	Total Nitrogen (NN/TKN)	2	Annually	2	\$ 40.00	\$ 80
	Total Phosphorus	2	Annually	2	\$ 18.00	\$ 36
Brandywine Bay	Effluent: BOD (2/mth)	2	Monthly	24	\$ 25.00	\$ 600
	Effluent: Fecal Coliform (2/mth)	2	Monthly	24	\$ 25.00	\$ 600
	Effluent: Ammonia Nitrogen (2/mth)	2	Monthly	24	\$ 20.00	\$ 480
	Effluent: Nitrate Nitrogen (2/mth)	2	Monthly	24	\$ 25.00	\$ 600
	Effluent: TSS (2/mth)	2	Monthly	24	\$ 20.00	\$ 480
	Effluent: Chloride (3/yr)	3	Annually	3	\$ 20.00	\$ 60
	Effluent: TOC (3/yr)	3	Annually	3	\$ 20.00	\$ 60
	Effluent: TDS (3/yr)	3	Annually	3	\$ 20.00	\$ 60
	Influent: Chloride (3/yr)	3	Annually	3	\$ 20.00	\$ 60
	Influent: TOC (3/yr)	3	Annually	3	\$ 20.00	\$ 60
	Influent: TDS (3/yr)	3	Annually	3	\$ 20.00	\$ 60
	Monitoring Wells (6 total - 3/yr) Depth, Gallons, Temp, pH, Color, Odor, TDS, Chloride, Total Phosphorus, TOC, Fecal Coliform, Nitrate Nitrogen	18	Annually	18	\$ 230.00	\$ 4,140
	VOC (Monitoring Wells; 6 total - 1/yr)	6	Annually	6	\$ 110.00	\$ 660
	Lab (Env Chemists) Sample Pick up fee	2	Monthly	24	\$ 10.00	\$ 240
	Field Lab Certification Testing (July)	1	Annually	1	\$ 683.29	\$ 683
	Field Lab Certification Testing (Sept) Low level TRC only	1	Annually	1	\$ 170.10	\$ 170
	Sludge Testing	1	Annually	1	\$ 375.00	\$ 375
Carolina Pines	BOD	1	Weekly	52	\$ 22.31	\$ 1,160
	Total Suspended Solids (TSS)	1	Weekly	52	\$ 12.61	\$ 656
	Ammonia Nitrogen (NH ₃ as N)	1	Weekly	52	\$ 17.46	\$ 908
	Total Nitrogen (NN/TKN)	1	Weekly	52	\$ 33.95	\$ 1,765
	Total Phosphorus	1	Weekly	52	\$ 17.46	\$ 908
	Enterococci	1	Weekly	52	\$ 32.01	\$ 1,665

Wastewater Testing

	Testing Costs 10	# of Samples Required	Frequency	Tests Per Year	Cost	
	Wastewater Analysis				Per Test	Annual Cost
	Sludge Testing (for land application)	1	Annually	1	\$ 375.00	\$ 375
Danby/Lamplighter South	BOD	1	Weekly	52	\$ 38.00	\$ 1,976
	Total Suspended Solids (TSS)	1	Weekly	52	\$ 11.00	\$ 572
	Ammonia Nitrogen (NH ₃ as N)	1	Weekly	52	\$ 28.00	\$ 1,456
	E. Coli	2	Weekly	104	\$ 55.00	\$ 5,720
	Total Phosphorus (permit change from 1/wk to 1/mth)	1	Monthly	12	\$ 28.00	\$ 336
	Lab (Prism) Environmental Fee for Sample Disposal	1	Weekly	52	\$ 3.00	\$ 156
	Field Lab Certification (SC)	1	Annually	1	\$ 395.64	\$ 396
	Instream Biological Assessment	1	Every 5 yrs	0.2	\$ 1,680.00	\$ 336
Hemby	BOD	1	Weekly	52	\$ 20.00	\$ 1,040
	Total Suspended Solids (TSS)	1	Weekly	52	\$ 12.00	\$ 624
	Ammonia Nitrogen (NH ₃ as N)	1	Weekly	52	\$ 19.00	\$ 988
	Fecal Coliform (Effluent, Upstream & Downstream)	3	Weekly	156	\$ 25.00	\$ 3,900
	Total Nitrogen (NN/TKN) (Qtrly)	4	Annually	4	\$ 52.00	\$ 208
	Total Phosphorus (Qtrly)	4	Annually	4	\$ 26.00	\$ 104
	Field Lab Certification Testing	1	Annually	1	\$ 395.64	\$ 396
Hestron Park	Effluent: BOD (1/mth)	1	Monthly	12	\$ 25.00	\$ 300
	Effluent: Fecal Coliform (1/mth)	1	Monthly	12	\$ 25.00	\$ 300
	Effluent: Ammonia Nitrogen (1/mth)	1	Monthly	12	\$ 20.00	\$ 240
	Effluent: Nitrate Nitrogen (1/mth)	1	Monthly	12	\$ 25.00	\$ 300
	Effluent: TSS (1/mth)	1	Monthly	12	\$ 20.00	\$ 240
	Effluent: TDS (3/yr)	3	Annually	36	\$ 20.00	\$ 720
	Effluent: Chloride (3/yr)	3	Annually	36	\$ 20.00	\$ 720
	Influent: TDS (3/yr)	3	Annually	3	\$ 20.00	\$ 60
	Influent: Chloride (3/yr)	3	Annually	3	\$ 20.00	\$ 60
	Monitoring Wells (5 total - 3/yr) Depth, Gallons, Temp, pH, Odor, TDS, Chloride, TOC, Fecal Coliform, Nitrate Nitrogen, Ammonia Nitrogen (Mar, Jul, Nov)	15	Annually	15	\$ 230.00	\$ 3,450
	VOC (Monitoring wells; 5 total - 1/yr November)	5	Annually	5	\$ 110.00	\$ 550
	Sludge Testing (for land application)	1	Annually	1	\$ 375.00	\$ 375
	Lab (Env Chemists) Sample Pick up fee	1	Monthly	12	\$ 10.00	\$ 120
Hound Ears	BOD	1	Weekly	52	\$ 16.00	\$ 832
	Total Suspended Solids (TSS)	1	Weekly	52	\$ 9.60	\$ 499
	Ammonia Nitrogen (NH ₃ as N)	1	Weekly	52	\$ 14.40	\$ 749
	Fecal Coliform	1	Weekly	52	\$ 13.60	\$ 707
	Oil and Grease (2/mth)	2	Monthly	24	\$ 35.00	\$ 840
	Total Kjeldahl Nitrogen (TKN)	2	Annually	2	\$ 44.00	\$ 88
	Total Phosphorus	2	Annually	2	\$ 35.00	\$ 70
	BOD	1	Weekly	52	\$ 22.31	\$ 1,160
Kings Grant (Raleigh)	Total Suspended Solids (TSS)	1	Weekly	52	\$ 12.61	\$ 656
	Ammonia Nitrogen (NH ₃ as N)	1	Weekly	52	\$ 17.46	\$ 908
	Fecal Coliform	1	Weekly	52	\$ 18.43	\$ 958
	Total Nitrogen (NN/TKN)	1	Weekly	52	\$ 33.95	\$ 1,765
	Total Phosphorus	2	Monthly	24	\$ 17.46	\$ 419
	Chronic Toxicity (Qtrly)	4	Annually	4	\$ 400.00	\$ 1,600
	Sludge Testing (for land application)	1	Annually	1	\$ 1,953.34	\$ 1,953
Olde Point	Effluent: BOD (2/mth Apr-Oct)	2	Monthly	14	\$ 25.00	\$ 350
	Effluent: BOD (1/mth Nov-Mar)	1	Monthly	5	\$ 25.00	\$ 125
	Effluent: TSS (2/mth Apr-Oct)	2	Monthly	14	\$ 20.00	\$ 280
	Effluent: TSS (1/mth Nov-Mar)	1	Monthly	5	\$ 20.00	\$ 100
	Effluent: Ammonia Nitrogen (2/mth Apr-Oct)	2	Monthly	14	\$ 20.00	\$ 280
	Effluent: Ammonia Nitrogen (1/mth Nov-Mar)	1	Monthly	5	\$ 20.00	\$ 100
	Effluent: Fecal Coliform (2/mth Apr-Oct)	2	Monthly	14	\$ 25.00	\$ 350
	Effluent: Fecal Coliform (1/mth Nov-Mar)	1	Monthly	5	\$ 25.00	\$ 125
	Effluent: Chloride (3/yr)	3	Annually	3	\$ 20.00	\$ 60
	Effluent: Nitrate Nitrogen (3/yr)	3	Annually	3	\$ 25.00	\$ 75
	Effluent: TDS (3/yr)	3	Annually	3	\$ 20.00	\$ 60
	Effluent: TOC (3/yr)	3	Annually	3	\$ 20.00	\$ 60
	Influent: Chloride (3/yr)	3	Annually	3	\$ 20.00	\$ 60
	Influent: Nitrate Nitrogen (3/yr)	3	Annually	3	\$ 25.00	\$ 75
	Influent: TDS (3/yr)	3	Annually	3	\$ 20.00	\$ 60
	Influent: TOC (3/yr)	3	Annually	3	\$ 20.00	\$ 60
	Influent: Enterococci (3/yr)	3	Annually	3	\$ 40.00	\$ 120
	Monitoring Wells (3 total - 3/yr) Depth, Gallons, Temp, pH, Color, Odor, TDS, Chloride, Orthophosphate, TOC, Fecal Coliform, Nitrate Nitrogen, Ammonia Nitrogen	9	Annually	9	\$ 270.00	\$ 2,430
	VOC (Monitoring wells; 3 total - 1/yr)	3	Annually	3	\$ 110.00	\$ 330
	Lab (Env Chemists) Sample Pick up fee (2/mth Apr-Oct)	2	Monthly	14	\$ 10.00	\$ 140
	Lab (Env Chemists) Sample Pick up fee (1/mth Nov-Mar)	1	Monthly	5	\$ 10.00	\$ 50
	Sludge Testing (for land application)	1	Annually	1	\$ 375.00	\$ 375
The Harbour/The Point	Chloride (1/mth per discharge)	3	Monthly	36	\$ 19.80	\$ 713
	Lead (1/mth per discharge)	3	Monthly	36	\$ 11.00	\$ 396
	Manganese (1/mth per discharge)	3	Monthly	36	\$ 11.00	\$ 396
	Turbidity (1/mth per discharge)	3	Monthly	36	\$ 19.80	\$ 713

Wastewater Testing

	Testing Costs 10	# of Samples Required	Frequency	Tests Per Year	Cost Per Test	Annual Cost
	Wastewater Analysis					
	Salinity (1/mth per discharge)	3	Monthly	36	\$ 19.00	\$ 684
	Conductivity (1/mth per discharge)	3	Monthly	36	\$ 18.00	\$ 648
	Courier fee (1/mth per discharge)	3	Monthly	36	\$ 15.00	\$ 540
	TDS (2/mth per discharge)	6	Monthly	72	\$ 11.00	\$ 792
	TSS (2/mth per discharge)	6	Monthly	72	\$ 11.00	\$ 792
	Processing & Disposal Fee (2/month per discharge)	6	Monthly	72	\$ 3.00	\$ 216
	Copper (1/qtr per discharge)	12	Annually	12	\$ 22.00	\$ 264
	Iron (1/qtr per discharge)	12	Annually	12	\$ 22.00	\$ 264
	Zinc (1/qtr per discharge)	12	Annually	12	\$ 11.00	\$ 132
	Chronic Toxicity (1/qtr per discharge) (cost includes \$50/sample courier fee)	12	Annually	12	\$ 484.50	\$ 5,814
Queens Harbor	BOD	1	Weekly	52	\$ 20.00	\$ 1,040
	Total Suspended Solids (TSS)	1	Weekly	52	\$ 12.00	\$ 624
	Ammonia Nitrogen (NH ₃ as N)	1	Weekly	52	\$ 19.00	\$ 988
	Fecal Coliform	1	Weekly	52	\$ 20.00	\$ 1,040
	Total Nitrogen (NN/TKN) (Qtrly)	4	Annually	4	\$ 52.00	\$ 208
	Total Phosphorus (Qtrly)	4	Annually	4	\$ 26.00	\$ 104
	Sample Pick-up Fee (Weekly)	1	Weekly	52	\$ 15.00	\$ 780
Regalwood	BOD	3	Weekly	156	\$ 1,300.00	\$ 15,600
	Total Suspended Solids (TSS)	3	Weekly	156		
	Ammonia Nitrogen (NH ₃ as N)	1	Weekly	52		
	Enterococci	3	Weekly	156		
	Total Nitrogen (NN/TKN) (Qtrly)	4	Annually	4		
	Total Phosphorus	1	Weekly	52		
	Sludge Testing (for land application)	1	Annually	1	\$ 375.00	\$ 375
River Pointe Estates	BOD	1	Weekly	52	\$ 20.00	\$ 1,040
	Total Suspended Solids (TSS)	1	Weekly	52	\$ 12.00	\$ 624
	Ammonia Nitrogen (NH ₃ as N)	2	Monthly	24	\$ 19.00	\$ 456
	Fecal Coliform	1	Weekly	52	\$ 20.00	\$ 1,040
	Total Nitrogen (NN/TKN) (Qtrly)	4	Annually	4	\$ 52.00	\$ 208
	Total Phosphorus (Qtrly)	4	Annually	4	\$ 26.00	\$ 104
Saddlewood	BOD	1	Weekly	52	\$ 20.00	\$ 1,040
	Total Suspended Solids (TSS)	1	Weekly	52	\$ 12.00	\$ 624
	Ammonia Nitrogen (NH ₃ as N)	1	Weekly	52	\$ 19.00	\$ 988
	Fecal Coliform	1	Weekly	52	\$ 20.00	\$ 1,040
Sugar Mountain	BOD	3	Weekly	156	\$ 16.00	\$ 2,496
	Total Suspended Solids (TSS)	3	Weekly	156	\$ 9.60	\$ 1,498
	Ammonia Nitrogen (NH ₃ as N)	3	Weekly	156	\$ 14.40	\$ 2,246
	Fecal Coliform	3	Weekly	156	\$ 13.60	\$ 2,122
	Total Nitrogen (NN/TKN) (2/yr)	2	Annually	2	\$ 44.00	\$ 88
	Total Phosphorus (2/yr)	2	Annually	2	\$ 35.00	\$ 70
	Chronic Toxicity (Qtrly)	4	Annually	4	\$ 375.00	\$ 1,500
	Field Lab Certification Testing	1	Annually	1	\$ 349.45	\$ 349
White Oak Est	BOD	3	Weekly	156	\$ 1,300.00	\$ 15,600
	Total Suspended Solids (TSS)	3	Weekly	156		
	Ammonia Nitrogen (NH ₃ as N)	1	Weekly	52		
	Enterococci	3	Weekly	156		
	Total Nitrogen (NN/TKN) (Qtrly)	4	Annually	4		
	Total Phosphorus	1	Weekly	52		
	Sludge Testing (for land application)	1	Annually	1	\$ 375.00	\$ 375
Willowbrook	BOD	1	Weekly	52	\$ 22.31	\$ 1,160
	Total Suspended Solids (TSS)	1	Weekly	52	\$ 12.61	\$ 656
	Ammonia Nitrogen (NH ₃ as N)	1	Weekly	52	\$ 17.46	\$ 908
	Fecal Coliform	1	Weekly	52	\$ 18.43	\$ 958
	Total Nitrogen (NN/TKN)	1	Weekly	52	\$ 33.95	\$ 1,765
	Total Phosphorus	2	Monthly	24	\$ 17.46	\$ 419
	Chronic Toxicity (Qtrly)	4	Annually	4	\$ 400.00	\$ 1,600
	Gross Alpha (Qtrly)	4	Annually	4	\$ 450.00	\$ 1,800
	Combined Radium (Qtrly)					
	Gross Beta (Qtrly)					
	Uranium (Qtrly)					
	Sludge Testing (for land application)	1	Annually	1	\$ 1,932.00	\$ 1,932
Wolf Laurel	BOD	1	Weekly	52	\$ 16.00	\$ 832
	Total Suspended Solids (TSS)	1	Weekly	52	\$ 9.60	\$ 499
	Ammonia Nitrogen (NH ₃ as N)	1	Weekly	52	\$ 14.40	\$ 749
	Fecal Coliform	1	Weekly	52	\$ 13.60	\$ 707
	Turbidity (Effluent)	1	Weekly	52	\$ 10.00	\$ 520
	Turbidity (upstream)	1	Weekly	52	\$ 10.00	\$ 520
	Turbidity (downstream)	1	Weekly	52	\$ 10.00	\$ 520
					Total 182	\$ 207,474
Nags Head	Effluent: BOD (1/wk), May-Aug	1	Weekly	16	\$ 25.00	\$ 400
	Effluent: BOD (2/mth) Sep-Apr	2	Monthly	16	\$ 25.00	\$ 400
	Effluent: Fecal Coliform (1/wk) May-Aug	1	Weekly	16	\$ 25.00	\$ 400
	Effluent: Fecal Coliform (2/mth) Sep-Apr	2	Monthly	16	\$ 25.00	\$ 400
	Effluent: Ammonia Nitrogen (1/wk) May-Aug	1	Weekly	16	\$ 20.00	\$ 320
	Effluent: Ammonia Nitrogen (2/mth) Sep-Apr	2	Monthly	16	\$ 20.00	\$ 320

Wastewater Testing

	Testing Costs 10	# of Samples Required	Frequency	Tests Per Year	Cost Per Test	Annual Cost
	Wastewater Analysis					
	Effluent: Total Nitrogen (NN/TKN) (1/wk) May-Aug	1	Weekly	16	\$ 50.00	\$ 800
	Effluent: Total Nitrogen (NN/TKN) (2/mth) Sep-Apr	2	Monthly	16	\$ 50.00	\$ 800
	Effluent: TSS (1/wk) May-Aug	1	Weekly	16	\$ 20.00	\$ 320
	Effluent: TSS (2/mth) Sep-Apr	2	Monthly	16	\$ 20.00	\$ 320
	Effluent: Total Phosphorus (1/wk) May-Aug	1	Weekly	16	\$ 25.00	\$ 400
	Effluent: Total Phosphorus (2/mth) Sep-Apr	2	Monthly	16	\$ 25.00	\$ 400
	Effluent: Chloride (3/yr)	3	Annually	3	\$ 20.00	\$ 60
	Effluent: TDS (3/yr)	3	Annually	3	\$ 20.00	\$ 60
	Effluent: TOC (3/yr)	3	Annually	3	\$ 20.00	\$ 60
	Influent: Chlorides (3/yr)	3	Annually	3	\$ 20.00	\$ 60
	Influent: TDS (3/yr)	3	Annually	3	\$ 20.00	\$ 60
	Influent: TOC (3/yr)	3	Annually	3	\$ 20.00	\$ 60
	Influent: Nitrate Nitrogen (3/yr)	3	Annually	3	\$ 25.00	\$ 75
	Monitoring Wells (4 total - 3/yr) Color, Depth, Ammonia Nitrogen, Gallons, Odor, TOC, TDS, Chloride, fecal Coliform, Nitrate Nitrogen, Temp, pH	12	Annually	12	\$ 215.00	\$ 2,580
	VOC (4 Monitoring wells - 1/yr)	4	Annually	4	\$ 110.00	\$ 440
	Sludge Testing (for land application)	1	Annually	1	\$ 1,700.00	\$ 1,700
Corolla Light	*Plant #1 Effluent: BOD, Fecal Coliform, Ammonia Nitrogen, Total Nitrogen, Total Phosphorus, TSS (1/week May-Aug)	1	Weekly	16	\$ 165.00	\$ 2,640
	**Plant #1 Effluent: BOD, Fecal Coliform, Ammonia Nitrogen, Total Nitrogen, Total Phosphorus, TSS (2/month Sept-April)	2	Monthly	16	\$ 165.00	\$ 2,640
	***Plant #1 Effluent: TOC, Chlorides, TDS (3/yr)	3	Annually	3	\$ 60.00	\$ 180
	Plant #1 Influent: TOC, Chlorides, Nitrate Nitrogen, TDS (3/yr) (decrease from 4/yr. Added Nitrates, dropped Total Phosphorus)	3	Annually	3	\$ 85.00	\$ 255
	Monitoring Wells (Plant #1) (7 total - 3/yr) Color, Depth, Gallons, TDS, Temperature, Chloride, pH, TOC, Ammonia Nitrogen, Fecal Coliform, Odor (decrease from 4/yr)	21	Annually	21	\$ 240.00	\$ 5,040
	VOC (Monitoring wells; Plant #1; 7 total - 1/yr)	7	Annually	7	\$ 110.00	\$ 770
	Plant #1 Sludge Testing (for land application)	1	Annually	1	\$ 375.00	\$ 375
	Monitoring Wells (Plant #2) (5 total - 2/yr) Color, Depth, Gallons, TDS, Temperature, Chloride, pH, TOC, Ammonia Nitrogen, Total Coliforms, Nitrate Nitrogen, Orthophosphate, TSS	10	Annually	10	\$ 225.00	\$ 2,250
	Monitoring Wells (Plant #2) (5 total - 1/yr November only) Color, Depth, Gallons, TDS, Temperature, Chloride, pH, TOC, Ammonia Nitrogen, Total Coliforms, Nitrate Nitrogen, Orthophosphate TSS TOX	5	Annually	5	\$ 335.00	\$ 1,675
Monterey Shores	*Effluent: BOD, Ammonia Nitrogen, Total Nitrogen, Total Phosphorous, TSS, Fecal Coliform	1	Weekly	52	\$ 165.00	\$ 8,580
	Effluent: Chlorides, TDS	3	Annually	3	\$ 40.00	\$ 120
	Influent: TOC, TDS, Chlorides, Nitrate Nitrogen	3	Annually	3	\$ 85.00	\$ 255
	GWLS Effluent: BOD, Ammonia Nitrogen, Fecal Coliform, Total Nitrogen, Total Phosphorous	1	Weekly	52	\$ 145.00	\$ 7,540
	GWLS Effluent: TDS, Chlorides, TOC	3	Annually	3	\$ 60.00	\$ 180
	Monitoring Wells (2 total - 3 per yr) Color, Depth, Ammonia Nitrogen, Gallons, TDS, Temp, Chloride, pH, Total Phosphorus, TOC, Nitrate Nitrogen, Fecal Coliform	6	Annually	6	\$ 250.00	\$ 1,500
	VOC (Monitoring wells; Plant #1; 2 total - 1/yr)	2	Annually	2	\$ 110.00	\$ 220
	Sludge testing (for land application)	1	Annually	1	\$ 375.00	\$ 375
					Total OBX	\$ 45,030
Fairfield Sapphire Valley	BOD	1	Weekly	52		
	Total Suspended Solids (TSS)	1	Weekly	52	\$ 235.00	\$ 2,820
	Ammonia Nitrogen (NH ₃ as N)	1	Weekly	52		
	Fecal Coliform	1	Weekly	52		
	Total Nitrogen (NN/TKN)	2	Annually	2	\$ 35.00	\$ 70
	Total Phosphorus	2	Annually	2	\$ 18.00	\$ 36
					Total BU 183 (less Fairfield Harbour)	\$ 2,926
Carolina Trace	BOD	3	Weekly	156	\$ 22.31	\$ 3,480
	Total Suspended Solids (TSS)	3	Weekly	156	\$ 12.61	\$ 1,967
	Ammonia Nitrogen (NH ₃ as N)	3	Weekly	156	\$ 17.46	\$ 2,724
	Fecal Coliform	3	Weekly	156	\$ 18.43	\$ 2,875
	Total Nitrogen (NN/TKN)	1	Quarterly	4	\$ 33.95	\$ 136
	Total Phosphorus	1	Quarterly	4	\$ 17.46	\$ 70
	Chronic Toxicity (Qtrly)	1	Annually	4	\$ 400.00	\$ 1,600
	Field Lab Certification Testing	1	Annually	1	\$ 506.37	\$ 506
					Total 187	\$ 13,358
Connestee Falls	Plant #1: BOD (1/wk)	1	Weekly	52	\$ 25.00	\$ 1,300
	Plant #1: TSS (1/wk)	1	Weekly	52	\$ 10.00	\$ 520
	Plant #1: Fecal Coliform (1/wk)	1	Weekly	52	\$ 25.00	\$ 1,300
	Plant #1: Ammonia Nitrogen (2/mth)	2	Monthly	24	\$ 18.00	\$ 432
	Plant #1: Total Phosphorus (2/yr)	2	Annually	2	\$ 18.00	\$ 36
	Plant #1: Total Nitrogen (NN/TKN) (2/yr)	2	Annually	2	\$ 40.00	\$ 80
	Plant #2: BOD (1/wk)	1	Weekly	52	\$ 25.00	\$ 1,300

Wastewater Testing

	Testing Costs 10	# of Samples Required	Frequency	Tests Per Year	Cost Per Test	Annual Cost
	Wastewater Analysis					
	Plant #2: TSS (1/wk)	1	Weekly	52	\$ 10.00	\$ 520
	Plant #2: Fecal Coliform (1/wk)	1	Weekly	52	\$ 25.00	\$ 1,300
	Plant #2: Ammonia Nitrogen (2/mth)	2	Monthly	24	\$ 18.00	\$ 432
					Total 188	\$ 7,220
Elk River	BOD	1	Weekly	52	\$ 16.00	\$ 832
	Total Suspended Solids (TSS)	1	Weekly	52	\$ 9.60	\$ 499
	Ammonia Nitrogen (NH ₃ as N)	1	Weekly	52	\$ 14.40	\$ 749
	Fecal Coliform	1	Weekly	52	\$ 13.60	\$ 707
	Total Nitrogen (NN/TKN)	2	Annually	2	\$ 44.00	\$ 88
	Total Phosphorus	2	Annually	2	\$ 35.00	\$ 70
					Total 181	\$ 2,945

Fairfield Harbor and Bradfield Farms

	Testing Costs 10		# of Samples R	Frequency	Tests Per Year	Cost Per Test	Annual Cost
	Wastewater Analysis						
Fairfield Harbor	BOD	3	Weekly	156	\$ 22.31	\$ 3,480	
	Total Suspended Solids (TSS)	3	Weekly	156	\$ 12.61	\$ 1,967	
	Ammonia Nitrogen (NH ₃ as N)	3	Weekly	156	\$ 17.46	\$ 2,724	
	Enterococci	3	Weekly	156	\$ 32.01	\$ 4,994	
	Total Nitrogen (NN/TKN)	1	Weekly	52	\$ 33.95	\$ 1,765	
	Total Phosphorus (Qtrly)	1	Weekly	52	\$ 17.46	\$ 908	
				Total Fairfield Harbour		\$ 15,838	
Bradfield Farms	BOD	1	Weekly	52	\$ 20.00	\$ 1,040	
	Total Suspended Solids (TSS)	1	Weekly	52	\$ 12.00	\$ 624	
	Ammonia Nitrogen (NH ₃ as N)	1	Weekly	52	\$ 19.00	\$ 988	
	Fecal Coliform	3	Weekly	156	\$ 20.00	\$ 3,120	
	Total Nitrogen (NN/TKN)	1	Quarterly	4	\$ 52.00	\$ 208	
	Total Phosphorus	1	Quarterly	4	\$ 26.00	\$ 104	
				Total 191		\$ 6,084	

Grand total \$ 300,876

Totals:
Uniform \$ 278,954
FH & BF \$ 21,922

Sludge Hauling

CWSNC

Bus.	Unit	Service Area	Sub 336	Sub 344	Sub 356		Sub 360	Adjusted
			2011/2012	2014	2015	2016	2017	
			Amount	Amount	Amount	Amount		average
182101	Kynwood	Abington	15,056	15,712	24,436	14,436	22,333	20,402
	102	Brandywine Bay/Spooners Cr.	10,558	13,500	14,580	9,030	28,380	a 17,330
	107	Sugar Mountain	14,455	14,560	10,640	15,120	18,410	14,723
	110	Saddlewood	1,120	1,996	432	756	5,262	2,150
	115	Ashely Hills	19,273	44,013	43,446	49,313	52,643	48,467
	117	Corolla Light	18,525	13,500	17,450	7,390	13,350	12,730
	120	Hestron Park	6,570	3,780	4,320	3,090	4,320	3,910
	123	Hounds Ear	2,240	-	-	2,800	500	1,100
	126	Willowbrook	5,736	5,856	9,150	9,516	9,846	9,504
	130	Wolf Laurel	720	920	3,920	3,000	1,080	2,667
	136	Kings Grant - Raleigh	4,312	2,186	5,876	1,830	2,562	3,423
	138	Bent Creek	9,470	12,950	12,630	30,410	14,000	19,013
	149	Bear Paw Resort		-	-	200	4,500	1,567
	155	Kings Grant Charlotte	9,572	-	-	370	-	123
	160	College Park	2,135	1,890	-	-	-	-
	173	Monteray Shores	27,900	35,815	32,850	28,650	51,850	b 37,783
	176	Olde Point	1,033	1,575	1,960	875	1,575	1,470
	178	Independent/Hemby	17,935	11,687	22,045	22,121	28,162	24,109
	190	Danby	41,116	25,797	17,819	31,190	40,422	29,810
	197	Queens harbor	2,120	16,153	4,050	6,048	3,100	4,399
	209	Nags head	22,000	29,800	40,065	46,120	15,845	1,c 34,010
	217	Regalwood	20,391	9,720	10,260	9,180	9,270	9,570
	218	White Oak Estates	15,450	21,450	22,680	23,250	25,380	23,770
	233	Belvedere Middle Point	13,170	9,981	18,130	25,166	24,570	2 24,868
	236	Riverpointe	4,345	9,652	3,348	5,805	5,373	4,842

Carolina Water Service, Inc. of North Carolina
Docket No. W-354, Sub 360
Test year Ending December 31, 2017

Casselberry
Exhibit No. 23
Page 2 of 2

Sludge Hauling

Bus.	Unit	Service Area	Sub 336	Sub 344	Sub 356		Sub 360	Adjusted
			2011/2012	2014	2015	2016	2017	
			Amount	Amount	Amount	Amount		average
	241	Carolina Pines	3,922	11,340	12,960	12,960	11,430	12,450
	243	Nero	6,055	6,605	5,124	3,680	4,372	4,392
	2247	Ridges at Mountain Harbor (new)		-	-	555	-	185
	181101	Elk River	n/a	5,315	10,080	10,018	5,160	3 8,419
	183102	Sapphire valley	n/a	10,099	4,665	5,829	17,377	d 9,290
	183109	Fairfield Mountain	n/a	425	-	-	-	-
	187101	Carolina Trace	n/a	47,239	38,641	44,796	41,732	41,723
	188101	Transylvania	n/a	14,960	15,050	19,600	17,325	17,325
Total CWSNC				400,491	408,622	445,120	482,146	445,526

Bradfield Farms/Fairfield Harbor

Bus.	Unit	Service Area	Sub 336	Sub 344	Sub 356		Sub 360	Adjusted
			2011/2012	2014	2015	2016	2017	
			Amount	Amount	Amount	Amount		average
	191101	Bradfield Farms	n/a	29,014	33,122	31,037	57,935	40,698
	183106	Fairfield harbor	n/a	19,844	24,664	25,067	22,498	24,076
Total BF/FH				48,858	57,786	56,104		64,774

Notes

- 1 New treatment process three year average
- 2 New treatment process two year average
- 3 New treatment process three year average

- a reclassified \$16,500 from sewer rodding to sludge removal to clean trains 1,2 3 & 4 at WWTP
- b reclassified \$4,500 from sewer rodding to sludge removal to clean membrane tanks 1-5 at WWTP
- c reclassified \$3,825 from sewer rodding to sludge removal to clean trains 1 and 2 at WWTP
- d reclassified \$8,850 from sewer rodding to sludge removal for cleaning ponds