

OFFICIAL COPY

INFORMATION SHEET

PRESIDING: Finley, Beatty, Brown-Bland, Dockham, Patterson, Gray, Clodfelter  
PLACE: Dobbs Building, Raleigh, North Carolina  
DATE: September 20, 2017 (Volume 7)  
TIME: 9:32 a.m. to 10:03 a.m.  
DOCKET NO.: W-354, Sub 356  
COMPANIES: Carolina Water Service, Inc. of North Carolina  
DESCRIPTION: Application by Carolina Water Service, Inc. of North Carolina,  
5701 Westpark Drive, Suite 101, Charlotte, North Carolina 28217  
for Authority to Adjust and Increase Rates for Water and Sewer  
Utility Service in All of Its Service Areas for North Carolina, Except  
Corolla Light and Monteray Shores Service Area and  
Elk River Development

APPEARANCES

FOR CAROLINA WATER SERVICE, INC. OF NORTH CAROLINA  
Jo Anne Sanford, Esq.  
Robert Bennink, Esq.

FOR COROLLA LIGHT COMMUNITY ASSOCIATION  
Brady W. Allen, Esq.

FOR THE USING AND CONSUMING PUBLIC  
Gina C. Holt, Esq.  
William E. Grantmyre, Esq.

WITNESSES

Bryan McCabe  
Vincent P. Roy  
Richard Linneman  
Gina Y. Casselberry  
Lindsay Quant  
Sonja R. Johnson  
William E. Grantmyre (adopting the testimony of Calvin C. Craig, III)

EXHIBITS

- ✓ Linneman Exhibit 1 I/--
  - ✓ Casselberry Exhibits 1-27 I/--
  - ✓ Quant Exhibits 1-3 I/--
  - ✓ Johnson Exhibit 1 I/--
  - ✓ Exhibits CCC-1 through CCC-5 I/--
  - ✓ Joint Stipulation --/A
  - ✓ Stipulation Between Carolina Water Service, Inc. of North Carolina  
and the Public Staff Regarding Cost of Capital and Capital Structure  
Issues --/A
  - ✓ Application --/A
  - ✓ Form W-1 --/A
  - ✓ Customer Reports --/A
- (confidential under seal) ✓*

FILED

SEP 25 2017

Clerk's Office  
N.C. Utilities Commission

---

EMAIL COPIES ORDERED: Holt, Johnson, Craig, Casselberry, Sanford

REPORTED BY: Linda Garrett

TRANSCRIBED BY: Linda Garrett

DATE TRANSCRIBED: September 24, 2017

TRANSCRIPT PAGES: 31

PREFILED PAGES: 92

**NORTH CAROLINA UTILITIES COMMISSION**  
**APPEARANCE SLIP**

DATE 9-20-17  
DOCKET #: W-354 Sub 356  
NAME OF ATTORNEY Jo Anne Sanford  
TITLE Attorney  
FIRM NAME Sanford Law Office, PLLC  
ADDRESS PO Box 28050  
CITY Raleigh NC  
ZIP 27601

**APPEARING FOR:** CWSNC

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

PLEASE NOTE: Electronic Copies of the regular transcript can be obtained from the NCUC website at HTTP://NCUC.commerce.state.nc.us/docksr ch.html under the respective docket number.

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

☒ Please check for an electronic copy of the transcript.

\_\_\_ # of Copies

Email: Sanford@SanfordLawOffice.com  
(Required for distribution)

☐ Please check for the **confidential** portion of the transcript, **only if a confidentiality agreement has been signed.**

\_\_\_ # of Copies

Signature: Jo Anne Sanford  
(Required for distribution)



**NORTH CAROLINA UTILITIES COMMISSION**  
**APPEARANCE SLIP**

DATE 9/20/17  
DOCKET #: W-354, SUB 356  
NAME OF ATTORNEY ROBERT H. BENNINK, JR.  
TITLE \_\_\_\_\_  
FIRM NAME BENNINK LAW OFFICE  
ADDRESS 130 MURPHY DRIVE  
CITY CARY, NC  
ZIP 27513

**APPEARING FOR:** CAROLINA WATER SERVICE, INC. of  
NORTH CAROLINA

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

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

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

☐ Please check for an electronic copy of the transcript.

\_\_\_\_ # of Copies

Email: \_\_\_\_\_  
(Required for distribution)

☐ Please check for the confidential portion of the transcript, only if a confidentiality agreement has been signed.

\_\_\_\_ # of Copies

Signature: Robert H. Bennink, Jr.  
(Required for distribution)



**NORTH CAROLINA UTILITIES COMMISSION**  
**APPEARANCE SLIP**

DATE 9/20/2017  
DOCKET #: W-354 sub 386  
NAME OF ATTORNEY Brady W Allen  
TITLE Attorney  
FIRM NAME Allen Law Offices, PLLC  
ADDRESS 1514 Glenwood Ave  
CITY Raleigh, NC 27604  
ZIP \_\_\_\_\_

**APPEARING FOR:** Corolla Light Community Association

APPLICANT \_\_\_\_\_ COMPLAINANT \_\_\_\_\_ INTERVENO R ☒  
PROTESTANT \_\_\_\_\_ RESPONDENT \_\_\_\_\_ DEFENDANT \_\_\_\_\_

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

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

☐ Please check for an electronic copy of the transcript.

\_\_\_ # of Copies

Email: \_\_\_\_\_  
(Required for distribution)

☐ Please check for the **confidential** portion of the transcript, **only if a confidentiality agreement has been signed.**

\_\_\_ # of Copies

Signature: \_\_\_\_\_  
(Required for distribution)

**NORTH CAROLINA UTILITIES COMMISSION**  
**PUBLIC STAFF - APPEARANCE SLIP**

DATE September 20, 2017 DOCKET # W-354, Sub 356

PUBLIC STAFF MEMBER Gina C. Holt, William Grantmyre

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

ACCOUNTING sonja.johnson@psncuc.nc.gov  
WATER gina.casselberry@psncuc.nc.gov;  
COMMUNICATIONS \_\_\_\_\_  
ELECTRIC \_\_\_\_\_  
GAS \_\_\_\_\_  
TRANSPORTATION \_\_\_\_\_  
ECONOMICS calvin.craig@psncuc.nc.gov  
LEGAL gina.holt@psncuc.nc.gov  
CONSUMER SERVICES \_\_\_\_\_

PLEASE NOTE: Electronic Copies of the regular transcript can be obtained from the NCUC web site at HTTP://NCUC.commerce.state.nc.us/docksrch.html under the respective docket number.

\_\_\_\_\_ Number of copies of Confidential portion of regular transcript (assuming a confidentiality agreement has been signed). Confidential pages will still be received in paper copies.

\*\*\*PLEASE INDICATE BELOW WHO HAS SIGNED A CONFIDENTIALITY AGREEMENT. IF YOU DO NOT SIGN, YOU WILL NOT RECEIVE THE CONFIDENTIAL PORTIONS!!!!

  
Signature of Public Staff Member

I/f

Linneman  
Exhibit 1

DOCKET NO. W-354, SUB 356

Carolina Water Service, Inc. of North Carolina

In the Matter of  
Application by Carolina Water Service, Inc. )  
of North Carolina, 5701 Westpark Drive, )  
Suite 101, Charlotte, North Carolina 28217, )  
for Authority to Adjust and Increase Rates )  
for Water and Sewer Utility Service in All )  
Service Areas in North Carolina )

**APPLICATION FOR  
A GENERAL INCREASE  
IN RATES**

**PROPOSED SCHEDULES OF RATES**



SCHEDULE OF RATES

for

CAROLINA WATER SERVICE, INC. OF NORTH CAROLINA

for providing water and sewer utility service

in

ALL OF ITS SERVICE AREAS IN NORTH CAROLINA

(excluding Corolla Light, Monteray Shores, Fairfield Harbour Service Area, Bradfield Farms, Elk River, Larkhaven, Silverton and Woodland Farms Subdivisions and Hawthorne at the Green Apartments)

WATER RATES AND CHARGES

Monthly Metered Water Service (Residential and Commercial):

Base Facility Charge (based on meter size with zero usage):

|              |            |
|--------------|------------|
| < 1" meter   | \$ 26.95   |
| 1" meter     | \$ 67.38   |
| 1 1/2" meter | \$ 134.75  |
| 2" meter     | \$ 215.60  |
| 3" meter     | \$ 404.25  |
| 4" meter     | \$ 673.75  |
| 6" meter     | \$1,347.50 |

Usage Charge:

|  |         |
|--|---------|
| A. Treated Water, per 1,000 gallons  | \$ 7.70 |
| B. Untreated Water, per 1,000 gallons<br>(Brandywine Bay Irrigation Water) | \$ 4.11 |

C. Purchased Water for Resale, per 1,000 gallons:

| <u>Service Area</u>                 | <u>Bulk Provider</u>   |         |
|-------------------------------------|------------------------|---------|
| Carolina Forest                     | Montgomery County      | \$ 3.19 |
| Carolina Trace                      | City of Sanford        | \$ 2.21 |
| High Vista Estates                  | City of Hendersonville | \$ 3.20 |
| Riverpointe                         | Charlotte Water        | \$ 6.30 |
| Whispering Pines                    | Town of Southern Pines | \$ 2.23 |
| White Oak Plantation/<br>Lee Forest | Johnston County        | \$ 3.25 |
| Winston Plantation                  | Johnston County        | \$ 3.25 |
| Winston Point                       | Johnston County        | \$ 3.25 |
| Woodrun                             | Montgomery County      | \$ 3.19 |
| Yorktown                            | City of Winston Salem  | \$ 5.01 |
| Zemosa Acres                        | City of Concord        | \$ 5.27 |

Commercial customers, including condominiums or other property owner associations who bill their members directly, shall have a separate account set up for each meter and each meter shall be billed separately based on the size of the meter and usage associated with the meter.

When because of the method of water line installation utilized by the developer or owner, it is impractical to meter each unit or other structure separately, the following will apply:

Sugar Mountain Service Area:

Where service to multiple units or other structures is provided through a single meter, the average usage for each unit or structure served by that meter will be calculated. Each unit or structure will be billed based upon that average usage plus the base monthly charge for a <1" meter.

Mount Mitchell Service Area:

Service will be billed based upon the Commission-approved monthly flat rate.

Monthly Flat Rate Water Service: (Billed in Arrears) \$ 50.17  
(Per residence or single family equivalent)<sup>3/</sup>

Availability Rate: (Semiannual)

Applicable only to property owners in Carolina Forest  
and Woodrun Subdivisions in Montgomery County \$ 24.64

Availability Rate: (Monthly)

|  |          |
|--|----------|
| Applicable only to property owners in Linville Ridge Subdivision | \$ 12.32 |
| Applicable to Fairfield Sapphire Valley service area             | \$ 9.07  |
| Applicable to Connestee Falls                                    | \$ 4.79  |

Meter Testing Fee: <sup>1/</sup> \$ 20.00

New Water Customer Charge: \$ 27.00

Reconnection Charge: <sup>2/</sup>

|  |          |
|--|----------|
| If water service is cut off by utility for good cause  | \$ 27.00 |
| If water service is discontinued at customer's request | \$ 27.00 |

Reconnection Charge: <sup>2/</sup>

If water service is cut off by utility for good cause Actual Cost

Management Fee: (in the following subdivision only)

|                               |          |
|-------------------------------|----------|
| Wolf Laurel                   | \$150.00 |
| Covington Cross (Phase 1 & 2) | \$100.00 |

Oversizing Fee: (in the following subdivision only)

|           |          |
|-----------|----------|
| Winghurst | \$400.00 |
|-----------|----------|

Meter Fee:

|                         |             |
|-------------------------|-------------|
| For <1" meter           | \$ 50.00    |
| For meters 1" or larger | Actual Cost |

New Meter Charge: (Clearwater and Sapphire) Actual Cost

Irrigation Meter Installation: Actual Cost

Uniform Connection Fees: <sup>4/</sup>

The following uniform connection fees apply unless specified differently by contract approved by and on file with the North Carolina Utilities Commission.



Connection Charge (CC), per SFE (Single Family Equivalent) \$ 100.00  
Plant Modification Fee (PMF), per SFE<sup>3/</sup> \$ 400.00

The systems where connection fees other than the uniform fees have been approved and/or allowed to become effective by the North Carolina Utilities Commission are as follows. CC is Connection Charge PMF is Plant Modification Fee and RCF is Recovery of Capital Fee. These fees are per SFE<sup>3/</sup>

| <u>Subdivision</u>                    | <u>CC</u>   | <u>PMF</u> |
|---------------------------------------|-------------|------------|
| Abington                              | \$ 0.00     | \$ 0.00    |
| Abington, Phase 14                    | \$ 0.00     | \$ 0.00    |
| Amherst                               | \$ 250.00   | \$ 0.00    |
| Bent Creek                            | \$ 0.00     | \$ 0.00    |
| Blue Mountain at Wolf Laurel          | \$ 925.00   | \$ 0.00    |
| Buffalo Creek, Phase I, II, III, IV   | \$ 825.00   | \$ 0.00    |
| Carolina Forest                       | \$ 0.00     | \$ 0.00    |
| Chapel Hills                          | \$ 150.00   | \$ 400.00  |
| Eagle Crossing                        | \$ 0.00     | \$ 0.00    |
| Forest Brook/Old Lamp Place           | \$ 0.00     | \$ 0.00    |
| Harbour                               | \$ 75.00    | \$ 0.00    |
| Hestron Park                          | \$ 0.00     | \$ 0.00    |
| Hound Ears                            | \$ 300.00   | \$ 0.00    |
| Kings Grant/Willow Run                | \$ 0.00     | \$ 0.00    |
| Lemmond Acres                         | \$ 0.00     | \$ 0.00    |
| Linville Ridge                        | \$ 400.00   | \$ 0.00    |
| Monterrey (Monterrey LLC)             | \$ 0.00     | \$ 0.00    |
| Quail Ridge                           | \$ 750.00   | \$ 0.00    |
| Queens Harbour/Yachtsman              | \$ 0.00     | \$ 0.00    |
| Riverpointe                           | \$ 300.00   | \$ 0.00    |
| Riverpointe (Simonini Bldrs.)         | \$ 0.00     | \$ 0.00    |
| Riverwood, Phase 6E (Johnston County) | \$ 825.00   | \$ 0.00    |
| Saddlewood/Oak Hollow (Summey Bldrs.) | \$ 0.00     | \$ 0.00    |
| Sherwood Forest                       | \$ 950.00   | \$ 0.00    |
| Ski Country                           | \$ 100.00   | \$ 0.00    |
| White Oak Plantation                  | \$ 0.00     | \$ 0.00    |
| Wildlife Bay.                         | \$ 870.00   | \$ 0.00    |
| Willowbrook                           | \$ 0.00     | \$ 0.00    |
| Winston Plantation                    | \$ 1,100.00 | \$ 0.00    |
| Winston Pointe, Phase 1A              | \$ 500.00   | \$ 0.00    |
| Wolf Laurel                           | \$ 925.00   | \$ 0.00    |
| Woodrun                               | \$ 0.00     | \$ 0.00    |
| Woodside Falls                        | \$ 500.00   | \$ 0.00    |

Former Clearwater systems

|                                     |           |
|-------------------------------------|-----------|
| Lindsey Point                       | \$ 0.00   |
| Amber Acres North, Sections II & IV | \$ 570.00 |

All other service areas:

|                          |                                       |
|--------------------------|---------------------------------------|
| A. 5/8" meter            | \$ 500.00                             |
| B. All other meter sizes | Actual cost of meter and installation |

Fairfield Sapphire Valley Service Area

|                               | <u>CC</u> | <u>RCF</u>  |
|-------------------------------|-----------|-------------|
| Holly Forest XI               | \$ 400.00 | \$ 2,400.00 |
| Holly Forest XIV              | \$ 400.00 | \$ 250.00   |
| Holly Forest XV               | \$ 400.00 | \$ 500.00   |
| Whisper Lake Phase I          | \$ 400.00 | \$ 1,250.00 |
| Whisper Lake Phase II & III   | \$ 400.00 | \$ 2,450.00 |
| Deer Run                      | \$ 400.00 | \$ 1,900.00 |
| Lonesome Valley Phases I & II | \$ 0.00   | \$ 0.00     |
| Chattooga Ridge               | \$ 0.00   | \$ 0.00     |
| All other service areas       | \$ 400.00 | \$ 0.00     |

Carolina Trace Service Area \$ 605.00

Connestee Falls \$ 600.00

Fairfield Mountain Service Area

|                         |           |
|-------------------------|-----------|
| Laurel Mountain Estates | \$ 0.00   |
| All others              | \$ 500.00 |

Elk River Service Area \$ 1,000.00

Treasure Cove Service Area

|                                   |           |
|-----------------------------------|-----------|
| Treasure Cove Subdivision         | \$ 0.00   |
| Northern Hills Subdivision        | \$ 100.00 |
| Glen Arbor/North Bend Subdivision | \$ 0.00   |
| Register Place Estates            | \$ 500.00 |

Forest Hills Service Area:

|                          |                                       |
|--------------------------|---------------------------------------|
| A. 5/8" meter            | \$ 500.00                             |
| B. All other meter sizes | Actual cost of meter and installation |

## SEWER RATES AND CHARGES

### Monthly Metered Sewer Service:

#### A. Base Facility Charge Residential and Commercial (zero usage):

|              |    |          |
|--------------|----|----------|
| < 1" meter   | \$ | 48.59    |
| 1" meter     | \$ | 121.48   |
| 1 1/2" meter | \$ | 242.95   |
| 2" meter     | \$ | 388.72   |
| 3" meter     | \$ | 728.85   |
| 4" meter     | \$ | 1,214.75 |
| 6" meter     | \$ | 2,429.50 |

|  |    |      |
|--|----|------|
| B. Usage Charge, per 1,000 gallons<br>(based on metered water usage) | \$ | 3.32 |
|--|----|------|

Commercial customers, including condominiums or other property owner associations who bill their members directly, shall have a separate account set up for each meter and each meter shall be billed separately based on the size of the meter and usage associated with the meter.

Commercial customers, who do not take water service will be charged the residential rate per single family equivalent (SFE) with a minimum of 1 SFE.<sup>3/</sup>

### Monthly Metered Purchased Sewer Service:

|  |    |       |
|--|----|-------|
| Collection Charge (Residential and Commercial/SFE) | \$ | 38.87 |
|--|----|-------|

Usage Charge, per 1,000 gallons based on purchased water consumption

| <u>Service Area</u>                             | <u>Bulk Provider</u> |         |
|---|----------------------|---------|
| White Oak Plantation/<br>Lee Forest/Winston Pt. | Johnston County      | \$ 4.55 |
| Kings Grant                                     | Two Rivers Utilities | \$ 3.80 |
| College Park                                    | Town of Dallas       | \$ 5.70 |

|   |    |       |
|---|----|-------|
| <u>Monthly Flat Rate Sewer Service:</u> | \$ | 60.22 |
|---|----|-------|

|   |    |       |
|---|----|-------|
| Multi-residential customers who are served by a master meter shall be charged the flat rate per unit. | \$ | 60.22 |
|---|----|-------|

### Availability Rate: (Monthly)



|  |    |      |
|--|----|------|
| Applicable to Fairfield Sapphire Valley service area | \$ | 8.28 |
| Applicable to Connestee Falls                        | \$ | 4.69 |

Mt. Carmel Subdivision Service Area:

|   |    |       |
|---|----|-------|
| Monthly Base Facility Charge  | \$ | 6.77  |
| Monthly Collection Charge<br>(Residential and Commercial/SFEY) <sup>3</sup> | \$ | 38.87 |
| Usage Charge, per 1,000 gallons based on<br>purchased water consumption     | \$ | 5.88  |

Regalwood and White Oak Estates Subdivision Service Areas:

Monthly Flat Rate Sewer Service

|                       |    |          |
|-----------------------|----|----------|
| Residential Service   | \$ | 60.22    |
| White Oak High School | \$ | 1,868.71 |
| Child Castle Daycare  | \$ | 232.45   |
| Pantry                | \$ | 123.46   |

Fairfield Mountain/Apple Valley Service Area

Monthly Sewer Rates:

Residential:

|  |    |        |
|--|----|--------|
| Collection Charge/dwelling unit        | \$ | 38.87  |
| Treatment Charge/dwelling unit         | \$ | 69.50  |
| Total monthly flat rate/dwelling unit. | \$ | 108.37 |

Commercial and Other:

|   |    |        |
|---|----|--------|
| Minimum monthly collection and treatment charge   | \$ | 108.37 |
| Monthly collection and treatment charge for<br>customers who do not take water service<br>(per single family equivalent) <sup>3</sup> | \$ | 108.37 |

Treatment charge per dwelling unit

|  |           |
|--|-----------|
| Small (less than 2,500 gallons per month)  | \$ 78.50  |
| Medium (2,500 to 10,000 gallons per month) | \$ 139.50 |
| Large (over 10,000 gallons per month)      | \$ 219.50 |
| Collection charge (per 1,000 gallons)      | \$ 13.93  |

Note: All treatment charges are Town of Lake Lure Charges. The treatment charges shown above are the Town of Lake Lure's inside rates, and outside users are charged double the inside rates. (Classification of user is determined by the Town of Lake Lure.)

New Sewer Customer Charge: <sup>5/</sup> \$ 27.00

Reconnection Charge: <sup>6/</sup>

If sewer service is cut off by utility for good cause: Actual Cost

Carolina Pines Subdivision Connection Fees: (sewer only)

|                |   |
|----------------|---|
| Residential    | \$1,350.00 per unit (including single family homes, condominiums, apartments, and mobile homes) |
| Hotels         | \$750.00 per unit   |
| Nonresidential | \$3.57 per gallon of daily design of discharge or \$900.00 per unit, whichever is greater       |

Uniform Connection Fees: <sup>4/</sup>

The following uniform connection fees apply unless specified differently by contract approved by and on file with the North Carolina Utilities Commission.

|  |             |
|--|-------------|
| Connection Charge (CC), per SFE (Single Family Equivalent) | \$ 100.00   |
| Plant Modification Fee (PMF) per SFE <sup>3/</sup>         | \$ 1,000.00 |

The systems where connection fees other than the uniform fees have been approved and/or allowed to become effective by the North Carolina Utilities Commission are as follows. CC is Connection Charge PMF is Plant Modification Fee and RCF is Recovery of Capital Fee. These fees are per SFE:<sup>3/</sup>

| <u>Subdivision</u>                 | <u>CC</u> | <u>PMF</u> |
|------------------------------------|-----------|------------|
| Abington                           | \$ 0.00   | \$ 0.00    |
| Abington, Phase 14                 | \$ 0.00   | \$ 0.00    |
| Amber Acres North (Phases II & IV) | \$ 815.00 | \$ 0.00    |
| Ashley Hills                       | \$ 0.00   | \$ 0.00    |
| Amherst                            | \$ 500.00 | \$ 0.00    |

|  |    |          |    |          |
|--|----|----------|----|----------|
| Bent Creek   | \$ | 0.00     | \$ | 0.00     |
| Brandywine Bay   | \$ | 100.00   | \$ | 1,456.00 |
| Camp Morehead by the Sea                                 | \$ | 100.00   | \$ | 1,456.00 |
| Hammock Place  | \$ | 100.00   | \$ | 1,456.00 |
| Hestron Park   | \$ | 0.00     | \$ | 0.00     |
| Hound Ears   | \$ | 30.00    | \$ | 0.00     |
| Independent/Hemby Acres/Beacon Hills<br>(Griffin Bldrs.) | \$ | 0.00     | \$ | 0.00     |
| Kings Grant/Willow Run                                   | \$ | 0.00     | \$ | 0.00     |
| Kynwood  | \$ | 0.00     | \$ | 0.00     |
| Mt. Carmel/Section 5A                                    | \$ | 500.00   | \$ | 0.00     |
| Queens Harbor/Yachtsman                                  | \$ | 0.00     | \$ | 0.00     |
| Riverpointe  | \$ | 300.00   | \$ | 0.00     |
| Riverpointe (Simonini Bldrs.)                            | \$ | 0.00     | \$ | 0.00     |
| Steeplechase (Spartabrook)                               | \$ | 0.00     | \$ | 0.00     |
| White Oak Plantation                                     | \$ | 0.00     | \$ | 0.00     |
| Willowbrook  | \$ | 0.00     | \$ | 0.00     |
| Willowbrook (Phase 3)                                    | \$ | 0.00     | \$ | 0.00     |
| Winston Pointe (Phase 1A)                                | \$ | 2,000.00 | \$ | 0.00     |
| Woodside Falls   | \$ | 0.00     | \$ | 0.00     |

|   |    |           |    |                          |
|---|----|-----------|----|--------------------------|
| <u>Fairfield Sapphire Valley Service Area</u> |    | <u>CC</u> |    | <u>RCE</u> <sup>7/</sup> |
| Holly Forest XIV                              | \$ | 550.00    | \$ | 1,650.00                 |
| Holly Forest XV                               | \$ | 550.00    | \$ | 475.00                   |
| Deer Run                                      | \$ | 550.00    | \$ | 1,650.00                 |
| Lonesome Valley Phases I & II                 | \$ | 0.00      | \$ | 0.00                     |
| All other service areas                       | \$ | 550.00    | \$ | 0.00                     |

Carolina Trace Service Area \$ 533.00

Connestee Falls \$ 400.00

Fairfield Mountain Service Area \$ 550.00

Elk River Service Area \$ 1,200.00

#### MISCELLANEOUS UTILITY MATTERS

Charge for Processing NSF Checks: \$ 25.00

Bills Due: On billing date



Bills Past Due:

21 days after billing date

Billing Frequency:

Bills shall be rendered monthly in all service areas, except for Mt. Carmel, which will be billed bimonthly; \*\*Availability rates will be billed semiannually in Carolina Forest and Woodrun and monthly for Linville Ridge.

Finance Charge for Late Payment:

1% per month will be applied to the unpaid balance of all bills still past due 25 days after billing date.

Notes:

<sup>1/</sup> If a customer requests a test of a water meter more frequently than once in a 24-month period, the Company will collect a \$20.00 service charge to defray the cost of the test. If the meter is found to register in excess of the prescribed accuracy limits, the meter testing charge will be waived. If the meter is found to register accurately or below prescribed accuracy limits, the charge shall be retained by the Company. Regardless of the test results, customers may request a meter test once in a 24-month period without charge.

<sup>2/</sup> Customers who request to be reconnected within nine months of disconnection at the same address shall be charged the base facility charge for the service period they were disconnected.

<sup>3/</sup> Single Family Equivalent (SFE) is defined as a three bedroom home with 400 gallons per day (gpd) of water design capacity pursuant to Administrative Code 15A NCAC 18C .0409 and 360 gpd for sewer design capacity pursuant to 15A NCAC 02T .0114. Non-residential SFE's shall be determined by dividing the design flow for that customer by 400 for water and 360 for sewer pursuant to those Administrative Codes.

<sup>4/</sup> These fees are only applicable one time, when the unit is initially connected to the system.

<sup>5/</sup> This charge shall be waived if customer is also a water customer within the same service area.

<sup>6/</sup> The utility shall itemize the estimated cost of disconnecting and reconnecting service and shall furnish this estimate to customer with cut-off notice. This charge will be waived if customer also receives water service from Carolina Water Service, Inc. of North Carolina within the same service area. Customers who request to be reconnected within nine months of disconnection at the same address shall be charged the base facility charge for the service period they were disconnected.

<sup>7/</sup> The recoupment of capital portion of the connection charges in the Sapphire Valley Service Area shall be due and payable at such time as the main water and sewer lines are installed in front of each lot, and the tap-on fee for water and sewer shall be payable upon request by the owner of each lot to be connected to the water and sewer lines. With written consent of the Company, payment of the recoupment capital portion of the connection charge may be made payable over five-year period following the installation of the water and sewer mains in front of each lot, payment to be made in such a manner and in such installments as agreed upon between lot owner and the Company, together with interest on the balance of the unpaid recoupment of capital fee from said time until payment in full at the rate of 6% per annum.

---

Issued in Accordance with Authority Granted by the North Carolina Utilities Commission in Docket No. W-354, Sub 356 on this the \_\_\_\_\_ day of \_\_\_\_\_, 2017.

SCHEDULE OF RATES

for

CAROLINA WATER SERVICE, INC. OF NORTH CAROLINA

for providing sewer utility service

in

COROLLA LIGHT AND MONTERAY SHORES SERVICE AREA

SEWER RATES AND CHARGES

Monthly Metered Service (Residential and Commercial):

Base Facility Charge (based on meter size with zero usage)

|              |            |
|--------------|------------|
| < 1" meter   | \$ 52.06   |
| 1" meter     | \$ 130.15  |
| 1 1/2" meter | \$ 260.31  |
| 2" meter     | \$ 416.49  |
| 3" meter     | \$ 780.92  |
| 4" meter     | \$1,301.54 |
| 6" meter     | \$2,603.07 |

Usage Charge, per 1,000 gallons \$ 6.62  
(based on purchased water usage)

Commercial customers, including condominiums or other property owner associations who bill their members directly, shall have a separate account set up for each meter and each meter shall be billed separately based on the size of the meter and usage associated with the meter.

New Sewer Customer Charge: \$ 21.92

Reconnection Charge: <sup>1/</sup>

If sewer service cut off by utility for good cause

Actual Cost

Uniform Connection Fees: <sup>2/</sup>

The following uniform connection fees apply unless specified differently by contract approved by and on file with the North Carolina Utilities Commission.

|  |            |
|--|------------|
| Connection Charge (CC), per SFE (Single Family Equivalent) | \$ 100.00  |
| Plant Modification Fee (PMF), per SFE                      | \$1,000.00 |

The systems where connection fees other than the uniform fees have been approved and/or allowed to become effective by the North Carolina Utilities Commission are as follows. These fees are per SFE:

| <u>Subdivision</u>                   | <u>CC</u> | <u>PMF</u> |
|--------------------------------------|-----------|------------|
| Corolla Light                        | \$ 700.00 | \$ 0.00    |
| Monteray Shores                      | \$ 700.00 | \$ 0.00    |
| Monteray Shores (Degabrielle Bldrs.) | \$ 0.00   | \$ 0.00    |
| Corolla Bay <sup>3/</sup>            | \$ 100.00 | \$1,000.00 |
| Corolla Bay <sup>4/</sup>            | \$ 700.00 | \$ 0.00    |
| Corolla Shores                       | \$ 700.00 | \$ 0.00    |

One SFE shall equal 360 gallons per day of capacity.

MISCELLANEOUS UTILITY MATTERS

Charge for Processing NSF Checks: \$ 24.91

Bills Due: On billing date

Bills Past Due: 21 days after billing date

Billing Frequency: Bills shall be rendered monthly

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

Notes:

<sup>1/</sup> The Utility shall itemize the estimated cost of disconnecting and reconnecting service and shall furnish the estimate to customer with cut-off notice.

Customers who request to be reconnected within nine months of disconnection at the same address shall be charged the base facility charge for the service period they were disconnected.

<sup>2/</sup> These fees are only applicable one time, when the unit is initially connected to the system.

<sup>3/</sup> The connection charge of \$100 per SFE and the plant modification fee of \$1,000 per SFE specified herein apply to new wastewater connections requested at Corolla Bay prior to June 4, 2015.

<sup>4/</sup> The connection charge of \$700 per SFE applies to new wastewater connections requested at Corolla Bay on and after June 4, 2015.

SCHEDULE OF RATES

for

CAROLINA WATER SERVICE, INC. OF NORTH CAROLINA

for providing water and sewer utility service

in

FAIRFIELD HARBOUR SERVICE AREA

Craven County, North Carolina

and

BRADFIELD FARMS SUBDIVISION

for providing sewer only service in

LARKHAVEN SUBDIVISION

and for providing bulk sewer utility service

SILVERTON AND WOODLAND FARMS SUBDIVISIONS and HAWTHORNE AT THE  
GREENS APARTMENTS

In Cabarrus and Mecklenburg Counties, North Carolina

WATER UTILITY SERVICE

Monthly Metered Water Rates:

A. Base Charge Residential and Commercial (zero usage)

|              |          |
|--------------|----------|
| < 1" meter   | \$ 12.84 |
| 1" meter     | \$ 32.10 |
| 1 1/2" meter | \$ 64.20 |
| 2" meter     | \$102.72 |

B. Usage Charge, per 1,000 gallons

\$3.55

Monthly Water Availability Rate: (Fairfield Harbor Area)

\$3.28

Connection Charge: <sup>1/</sup>

All Fairfield Harbor Areas Except Harbor Pointe II Subdivision

\$ 335.00 per tap (recoupment of capital fee)

\$ 140.00 per tap (tap-on fee)

Harbor Pointe Subdivision and any area where mains have been installed  
after  
July 24, 1989

\$ 650.00 per tap (recoupment of capital fee)

\$ 320.00 per tap (tap-on fee)

Bradfield Farms Service Area

No connection charge

Irrigation Meter Installation: Actual Cost

New Meter Charge: Actual Cost

New Water Customer Charge: \$ 27.00

Meter Testing Fee: <sup>2/</sup> \$ 20.00

Reconnection Charge:

If water service cut off by utility for good cause \$ 27.00

If service discontinued at customers request \$ 27.00

(Customers who ask to be reconnected within nine months of disconnection will be charged the base monthly charge for zero usage for the service periods they were disconnected.)

SEWER UTILITY SERVICE

Monthly Sewer Rates:

Residential:



|   |          |
|---|----------|
| Flat Rate (per dwelling unit)                 | \$ 42.83 |
| Bulk Flat Rate, per customer (Bradfield Area) | \$ 41.83 |

Bulk Sewer Service for Hawthorne at the Green Apartments (Bradfield Farms Area):

|                         |              |
|-------------------------|--------------|
| Bulk Flat Rate, per REU | \$ 41.83 per |
| month <sup>3/</sup>     |              |

(To be collected from Hawthorne and delivered to Carolina Water Service, Inc. of North Carolina for treatment of the Hawthorne wastewater pursuant to Docket No. W-218, Sub 291)

Commercial and Others:

A. Customers who do not take water service

|                   |          |
|-------------------|----------|
| Monthly Flat Rate | \$ 41.83 |
|-------------------|----------|

B. Monthly Metered Rates:

Base charge, zero  
usage

|              |          |
|--------------|----------|
| <1" meter    | \$ 11.50 |
| 1 1/2" meter | \$ 57.50 |
| 2" meter     | \$ 92.00 |

C. Usage Charge, per 1,000 gallons

\$6.36

Monthly Sewer Availability Rate: (Fairfield Harbor Area)

\$2.64

Connection Charge: <sup>1/</sup>

All Fairfield Harbor Areas Except Harbor Pointe II Subdivision

\$ 735.00 per tap (recoupment of capital fee)  
\$ 140.00 per tap (tap on fee)

Harbor Pointe Subdivision and any area where mains have been installed after July 24, 1989

\$2,215.00 per tap (recoupment of capital fee)  
\$ 310.00 per tap (tap on fee)

Bradfield Farms Service Area

No connection charge

New Sewer Customer Charge:

\$27.

0 (If customer also receives water service, this charge will be waived.)

Reconnection Charge:

If sewer service is cut off by utility for good cause, the actual cost of disconnection and reconnection will be charged.

The utility will itemize the estimated cost of disconnecting and reconnecting service and will furnish the estimate to customer with the cut-off notice.

This charge will be waived if customer also receives water service from Carolina Water Service, Inc. of North Carolina.

Customers who ask to be reconnected within nine months of disconnection will be charged the base monthly charge for zero usage for the service period they were disconnected.

Bills Due:

On billing date

Bills Past Due:

21 days after billing date

Returned Check Charge:

\$25.00

Billing Frequency:

Shall be monthly for service in arrears

Availability billings semi-annually in advance

Finance Charge for Late Payment:

1% per month will be applied to the unpaid balance of all bills still past due 25 days after billing date.

NOTES:

1/ The recoupment of capital portion of the connection charges shall be due and payable at such

time as the main water and sewer lines are installed in front of each lot, and the tap-on fee for water and sewer shall be payable upon request by the owner of each lot to be connected to the water and sewer lines. With written consent of the Company, payment of the recoupment capital portion of the connection charge may be made payable over five-year period following the installation of the water and sewer mains in front of each lot, payment to be made in such a manner and in such installments as agreed upon between lot owner and the Company, together with interest on the balance of the unpaid recoupment of capital fee from said time until payment in full at the rate of 6% per annum.

<sup>2/</sup> If a customer requests a test of a water meter more frequently than once in a 24-month period, the Company will collect a \$19.96 service charge to defray the cost of the test. If the meter is found to register in excess of the prescribed accuracy limits, the meter test charge will be waived. If the meter is found to register accurately or below such prescribed accuracy limits, the charge shall be retained by the Company. Regardless of the test results, customers may request a meter test once in a 24-month period without charge.

<sup>3/</sup> Each apartment building at Hawthorne at the Green Apartments in the Bradfield Farms Area will be considered 92.42% occupied on an ongoing basis for billing purposes as soon as the certificate of occupancy is issued for that apartment building.

---

Issued in Accordance with Authority Granted by the North Carolina Utilities Commission in Docket No. W-354, Sub 356 on this the \_\_\_\_\_ day of \_\_\_\_\_, 2017.

SCHEDULE OF RATES

for

CAROLINA WATER SERVICE, INC. OF NORTH CAROLINA

for providing water and sewer utility service

in

ELK RIVER DEVELOPMENT

WATER UTILITY SERVICE

Monthly Metered Water Service: (Residential and Non-residential)

Base Facility Charge (based on meter size with zero usage)

|            |           |
|------------|-----------|
| < 1" meter | \$ 19.52  |
| 1" meter   | \$ 48.79  |
| 2" meter   | \$ 156.12 |

|                                 |         |
|---------------------------------|---------|
| Usage Charge, per 1,000 gallons | \$ 4.29 |
|---------------------------------|---------|

SEWER UTILITY SERVICE

Monthly Metered Sewer Service: (Residential and Non-residential)

Base Facility Charge (based on meter size with zero usage)

|            |           |
|------------|-----------|
| < 1" meter | \$ 23.38  |
| 1" meter   | \$ 58.45  |
| 2" meter   | \$ 187.05 |

|   |         |
|---|---------|
| Usage Charge, per 1,000 gallons<br>(based on metered water usage) | \$ 3.00 |
|---|---------|

Connection Charge:

|       |            |
|-------|------------|
| Water | \$1,000.00 |
| Sewer | \$1,200.00 |

Reconnection Charge:

|  |                          |
|--|--------------------------|
| If water service is cut off by utility for good cause  | \$26.92                  |
| If water service is disconnected at customer's request | \$26.92                  |
| If sewer service is cut off by utility for good cause  | Actual Cost <sup>1</sup> |

<sup>1</sup> The utility shall itemize the estimated cost of disconnecting and reconnecting service and shall furnish this estimate to customer with cut-off notice. This charge will be waived if customer also receives water service from the utility within the same service area.

(Customers who ask to be reconnected within nine months of disconnection will be charged the approved base facility charges for water and sewer for the service period during which they were disconnected.)

New Water Customer Charge: \$26.92

Bills Due: On billing date

Bills Past Due: 21 days after billing date

Billing Frequency: Shall be monthly for service in arrears

Returned Check Charge: \$24.93

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

### **CERTIFICATE OF SERVICE**

I hereby certify that on this the 7th day of August, 2017, a copy of the foregoing **Direct Testimony and Exhibit of Richard Linneman** has been duly served upon all parties of record to Docket No. W-354, Sub 356 by electronic service.

**Electronically Submitted  
/s/Jo Anne Sanford**

State Bar No. 6831  
SANFORD LAW OFFICE, PLLC  
Post Office Box 28085  
Raleigh, North Carolina 27611-8085  
Tel: (919) 210.4900  
sanford@sanfordlawoffice.com  
**Attorney for Carolina Water Service, Inc. of  
North Carolina**

7/11

Carolina Water Service, Inc. of North Carolina  
Docket No. W-354, Sub 356  
For the 12 Months Ending December 31, 2016

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 356  
For the 12 Months Ending December 31, 2016

Casselberry  
Exhibit No. 1  
Page 2 of 3

CWSNC Water

Service Area

Olde Point  
Pinnacle Shores  
Powder Horn Mountain  
Quail Ridge  
Queen's Harbor  
Ridges at Mt Harbor  
Riverwood  
Saddlewood  
Sherwood Forest  
Sherwood Park  
Ski Mountain  
Stone Hollow  
Suburban Heights  
Sugar Mountain  
The Harbor/Point  
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 Tralls  
Stewarts Ridge  
Wilders Village  
Neuse Woods

OFFICIAL COPY

Sep 19 2017

Carolina Water Service, Inc. of North Carolina  
Docket No. W-354, Sub 356  
For the 12 Months Ending December 31, 2016

Casselberry  
Exhibit No. 1  
Page 3 of 3

**CWSNC Water**

**Service Area**

---

Tuckahoe  
Jordan Woods  
Hidden Hollow  
Lindsey Point

**New Under Uniform Rates**

Treasure Cove  
Forest Hills  
Carolina Trace  
Connettee Falls  
Fairfield Sapphire Valley  
Fairfield Mountain (a.k.a. Rumbling Bald)

**Purchased Water Systems**

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

**Service Area**

---

Bradfield Farms  
Fairfield Harbor  
Elk River

OFFICIAL COPY

Sep 19 2017

I/--

Carolina Water Service, Inc. of North Carolina  
Docket No. W-354, Sub 356  
For the 12 Months Ending December 31, 2016

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  
Ridges at Mt. Harbour  
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

**New Under Uniform Rates**

Carolina Trace  
Connestee Falls  
Fairfield Mountain  
Nags Head  
Sapphire Valley

**Service Area**

Bradfield Farms  
Fairfield Harbour  
Elk River  
Corolla Light/Monteray Shores

OFFICIAL COPY

Sep 19 2017

I/--

Carolina Water Service, Inc. of North Carolina  
Docket No. W-354, Sub 356  
Test Year Ending December 31, 2016

Casselberry  
Exhibit No. 3  
Page 1 of 10

OFFICIAL COPY

Sep 19 2017

# WATER UTILITY SERVICE

## Monthly Metered Water Service: (Residential and Commercial)

|                                    | <u>Existing</u> | <u>Proposed</u> |
|------------------------------------|-----------------|-----------------|
| Base Facility Charges (zero usage) |                 |                 |
| < 1" meter                         | \$ 22.40        | \$ 26.95        |
| 1" meter                           | \$ 55.01        | \$ 67.38        |
| 1-1/2" meter                       | \$ 112.02       | \$ 134.75       |
| 2" meter                           | \$ 179.23       | \$ 215.60       |
| 3" meter                           | \$ 336.06       | \$ 404.25       |
| 4" meter                           | \$ 560.10       | \$ 673.75       |
| 6" meter                           | \$1,120.19      | \$1,347.50      |

|  | <u>Existing</u> | <u>Proposed</u> |
|--|-----------------|-----------------|
| Usage Charge, per 1,000 gallons                      |                 |                 |
| Treated Water  | \$ 6.40         | \$ 7.70         |
| Untreated Water<br>(Brandywine Bay Irrigation Water) | \$ 4.11         | \$ 4.11         |

## Purchased Water for Resale

| <u>Service Area</u>                 | <u>Bulk Provider</u>   | <u>Usage Charge per<br/>1,000 gallons</u> |         |
|-------------------------------------|------------------------|---|---------|
| Carolina Forest                     | Montgomery County      | \$ 3.19                                   | \$ 3.19 |
| High Vista Estates                  | City of Hendersonville | \$ 3.25                                   | \$ 3.25 |
| Riverpointe                         | CLT Water              | \$ 6.30                                   | \$ 6.30 |
| Whispering Pines                    | Town of Southern Pines | \$ 2.23                                   | \$ 2.23 |
| White Oak Plantation/<br>Lee Forest | Johnston County        | \$ 3.25                                   | \$ 3.25 |
| Winston Plantation                  | Johnston County        | \$ 3.25                                   | \$ 3.25 |
| Winston Pointe                      | Johnston County        | \$ 3.25                                   | \$ 3.25 |
| 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 |

|  |          |          |
|--|----------|----------|
| <u>Monthly Flat Rate Water Service:</u><br>(per residence or single family equivalent) | \$ 41.60 | \$ 50.17 |
|--|----------|----------|

## Availability Rates (semi-annual):

|  |          |          |
|--|----------|----------|
| Applicable only to property owners in Carolina Forest<br>and Woodrun Subdivisions in Montgomery County | \$ 24.64 | \$ 24.64 |
|--|----------|----------|

## Availability Rates (Monthly):

|   |          |          |
|---|----------|----------|
| Applicable only to property owners in Linville Ridge<br>Subdivision | \$ 12.32 | \$ 12.32 |
|---|----------|----------|

**FORMER CLEARWATER SYSTEMS:** Amber Acres, Amber Acres North, Amber Ridge, Ashley Hills North, Bishop Pointe, Carriage Manor, Country Crossing, Covington Cross, Heather Glen, Hidden Hollow, Jordan Woods, Lindsey Point, Neuse Woods, Oakes Plantation, Randsdell Forest, Rutledge Landing, Sandy Trails, Stewart's Ridge, Tuckahoe, and Wilder's Village Subdivisions

## Monthly Metered Water Rates:

|                         | <u>Existing</u> | <u>Proposed</u> |
|-------------------------|-----------------|-----------------|
| Base Charge, zero usage |                 |                 |
| 5/8" meter              | \$ 16.27        |                 |
| 1" meter                | \$ 40.67        |                 |
| 1-1/2" meter            | \$ 81.34        |                 |
| 2" meter                | \$ 130.14       |                 |
| 3" meter                | \$ 244.07       |                 |

|                                 | <u>Existing</u> | <u>Proposed</u> |
|---------------------------------|-----------------|-----------------|
| 4" meter                        | \$ 406.76       |                 |
| 6" meter                        | \$ 813.37       |                 |
| Usage Charge, per 1,000 gallons | \$ 4.50         |                 |

Monthly Metered Water Service: (Residential and Commercial)

|  | <u>Existing</u> | <u>Proposed</u> |
|--|-----------------|-----------------|
| Base Facility Charges (zero usage)               |                 |                 |
| < 1" meter                                       |                 | \$ 26.95        |
| 1" meter   |                 | \$ 67.38        |
| 1-1/2" meter                                     |                 | \$ 134.75       |
| 2" meter   |                 | \$ 215.60       |
| 3" meter   |                 | \$ 404.25       |
| 4" meter   |                 | \$ 673.75       |
| 6" meter   |                 | \$1,347.50      |
| Usage Charge, per 1,000 gallons<br>Treated Water |                 | \$ 7.70         |

Monthly Flat Water Rates

|   |          |          |
|---|----------|----------|
| (per residence of single family equivalent) | \$ 37.18 | \$ 50.17 |
|---|----------|----------|

Management Fee

|  |           |           |
|--|-----------|-----------|
| Covington Cross Subdivision (Phases 1 & 2) | \$ 100.00 | \$ 100.00 |
|--|-----------|-----------|

TREASURE COVE, REGISTER PLACE ESTATES, NORTH HILLS, AND GLEN ARBOR/NORTH BEND SUBDIVISIONS

Monthly Metered Water Rates:

|                                 | <u>Existing</u> | <u>Proposed</u> |
|---------------------------------|-----------------|-----------------|
| Base Charge, zero usage         | \$ 14.50        |                 |
| Usage Charge, per 1,000 gallons | \$ 1.90         |                 |

Monthly Metered Water Service: (Residential and Commercial)

|  |  |            |
|--|--|------------|
| Base Facility Charges (zero usage)               |  |            |
| < 1" meter                                       |  | \$ 26.95   |
| 1" meter   |  | \$ 67.38   |
| 1-1/2" meter                                     |  | \$ 134.75  |
| 2" meter   |  | \$ 215.60  |
| 3" meter   |  | \$ 404.25  |
| 4" meter   |  | \$ 673.75  |
| 6" meter   |  | \$1,347.50 |
| Usage Charge, per 1,000 gallons<br>Treated Water |  | \$ 7.70    |

FOREST HILLS SUBDIVISION

Monthly Metered Water Service:

|                                    | <u>Existing</u> | <u>Proposed</u> |
|------------------------------------|-----------------|-----------------|
| Base Facility Charges (zero usage) |                 |                 |
| Residential                        | \$ 22.43        |                 |
| Commercial and Other:              |                 |                 |
| 5/8" meter                         | \$ 22.43        |                 |
| 3/4" meter                         | \$ 33.66        |                 |

Carolina Water Service, Inc. of North Carolina  
Docket No. W-354, Sub 356  
Test Year Ending December 31, 2016

Casselberry  
Exhibit No. 3  
Page 3 of 10

|                                 | <u>Existing</u> | <u>Proposed</u> |
|---------------------------------|-----------------|-----------------|
| 1" meter                        | \$ 56.08        |                 |
| 1-1/2" meter                    | \$ 112.16       |                 |
| 2" meter                        | \$ 179.46       |                 |
| 3" meter                        | \$ 336.49       |                 |
| 4" meter                        | \$ 560.81       |                 |
| 6" meter                        | \$1,121.63      |                 |
| Usage Charge, per 1,000 gallons | \$ 5.23         |                 |

Monthly Metered Water Service: (Residential and Commercial)

|  | <u>Existing</u> | <u>Proposed</u> |
|--|-----------------|-----------------|
| Base Facility Charges (zero usage)               |                 |                 |
| < 1" meter                                       |                 | \$ 26.95        |
| 1" meter   |                 | \$ 67.38        |
| 1-1/2" meter                                     |                 | \$ 134.75       |
| 2" meter   |                 | \$ 215.60       |
| 3" meter   |                 | \$ 404.25       |
| 4" meter   |                 | \$ 673.75       |
| 6" meter   |                 | \$1,347.50      |
| Usage Charge, per 1,000 gallons<br>Treated Water |                 | \$ 7.70         |

FAIRFIELD MOUNTAIN/APPLE VALLEY (a.k.a. RUMBLING BALD) SERVICE AREA, HIGHLAND SHORES  
SUBDIVISION AND LAUREL MOUNTAIN ESTATES

Monthly Metered Water Service:

|                                    | <u>Existing</u> | <u>Proposed</u> |
|------------------------------------|-----------------|-----------------|
| Base Facility Charges (zero usage) |                 |                 |
| Residential                        | \$ 19.23        |                 |
| Commercial and Other:              |                 |                 |
| 5/8" meter                         | \$ 19.23        |                 |
| 3/4" meter                         | \$ 28.84        |                 |
| 1" meter                           | \$ 48.07        |                 |
| 1-1/2" meter                       | \$ 96.14        |                 |
| 2" meter                           | \$ 153.83       |                 |
| 3" meter                           | \$ 288.42       |                 |
| 4" meter                           | \$ 480.70       |                 |
| 6" meter                           | \$ 961.40       |                 |
| Usage Charge, per 1,000 gallons    | \$ 7.10         |                 |

Monthly Metered Water Service: (Residential and Commercial)

|  | <u>Existing</u> | <u>Proposed</u> |
|--|-----------------|-----------------|
| Base Facility Charges (zero usage)               |                 |                 |
| < 1" meter                                       |                 | \$ 26.95        |
| 1" meter   |                 | \$ 67.38        |
| 1-1/2" meter                                     |                 | \$ 134.75       |
| 2" meter   |                 | \$ 215.60       |
| 3" meter   |                 | \$ 404.25       |
| 4" meter   |                 | \$ 673.75       |
| 6" meter   |                 | \$1,347.50      |
| Usage Charge, per 1,000 gallons<br>Treated Water |                 | \$ 7.70         |

**FAIRFIELD SAPPHIRE VALLEY SERVICE AREA**

**Monthly Metered Water Service:**

|                                    | <u>Existing</u> | <u>Proposed</u> |
|------------------------------------|-----------------|-----------------|
| Base Facility Charges (zero usage) |                 |                 |
| Residential                        | \$ 19.89        |                 |
| Commercial and Other:              |                 |                 |
| 5/8" meter                         | \$ 19.89        |                 |
| 3/4" meter                         | \$ 29.84        |                 |
| 1" meter                           | \$ 49.73        |                 |
| 1-1/2" meter                       | \$ 99.45        |                 |
| 2" meter                           | \$ 159.13       |                 |
| 3" meter                           | \$ 298.37       |                 |
| 4" meter                           | \$ 497.20       |                 |
| 6" meter                           | \$ 994.41       |                 |
| Usage Charge, per 1,000 gallons    | \$ 9.17         |                 |

**Monthly Metered Water Service: (Residential and Commercial)**

|  | <u>Existing</u> | <u>Proposed</u> |
|--|-----------------|-----------------|
| Base Facility Charges (zero usage)               |                 |                 |
| < 1" meter                                       |                 | \$ 26.95        |
| 1" meter   |                 | \$ 67.38        |
| 1-1/2" meter                                     |                 | \$ 134.75       |
| 2" meter   |                 | \$ 215.60       |
| 3" meter   |                 | \$ 404.25       |
| 4" meter   |                 | \$ 673.75       |
| 6" meter   |                 | \$1,347.50      |
| Usage Charge, per 1,000 gallons<br>Treated Water |                 | \$ 7.70         |
| <b><u>Monthly Water Availability Rate:</u></b>   | \$ 9.07         | \$ 9.07         |

**CAROLINA TRACE DEVELOPMENT**

**Monthly Metered Water Rates:**

|                                 | <u>Existing</u>       | <u>Proposed</u> |
|---------------------------------|-----------------------|-----------------|
| Base Charge, zero usage         | \$ 14.05<br>(minimum) |                 |
| Usage Charge, per 1,000 gallons | \$ 5.06               |                 |

**Monthly Metered Water Service: (Residential and Commercial)**

|   |  |            |
|---|--|------------|
| Base Facility Charges (zero usage)            |  |            |
| < 1" meter                                    |  | \$ 26.95   |
| 1" meter                                      |  | \$ 67.38   |
| 1-1/2" meter                                  |  | \$ 134.75  |
| 2" meter                                      |  | \$ 215.60  |
| 3" meter                                      |  | \$ 404.25  |
| 4" meter                                      |  | \$ 673.75  |
| 6" meter                                      |  | \$1,347.50 |
| Purchased Water for Resale, per 1,000 gallons |  | \$ 2.21    |

CONNESTEE FALLS SUBDIVISION

Monthly Metered Water Rates:

|                                 | <u>Existing</u> | <u>Proposed</u> |
|---------------------------------|-----------------|-----------------|
| Base Charge, zero usage         |                 |                 |
| 5/8" X 3/4" meter               | \$ 27.41        |                 |
| 1" meter                        | \$ 68.51        |                 |
| 2" meter                        | \$ 219.22       |                 |
| Usage Charge, per 1,000 gallons | \$ 6.65         |                 |

Monthly Metered Water Service: (Residential and Commercial)

|  |  |            |
|--|--|------------|
| Base Facility Charges (zero usage)               |  |            |
| < 1" meter                                       |  | \$ 26.95   |
| 1" meter   |  | \$ 67.38   |
| 1-1/2" meter                                     |  | \$ 134.75  |
| 2" meter   |  | \$ 215.60  |
| 3" meter   |  | \$ 404.25  |
| 4" meter   |  | \$ 673.75  |
| 6" meter   |  | \$1,347.50 |
| Usage Charge, per 1,000 gallons<br>Treated Water |  | \$ 7.70    |

|                                   |         |         |
|-----------------------------------|---------|---------|
| <u>Monthly Availability Rate:</u> | \$ 4.79 | \$ 4.79 |
|-----------------------------------|---------|---------|

SEWER UTILITY SERVICE

Monthly Metered Sewer Service:

|   |                             |                 |
|---|-----------------------------|-----------------|
| Base Facility Charges   |                             |                 |
| Residential (zero usage)                                      | <u>Existing</u><br>\$ 42.40 | <u>Proposed</u> |
| Commercial (zero usage)                                       |                             |                 |
| <1" meter   | \$ 42.40                    |                 |
| 1" meter  | \$ 106.00                   |                 |
| 1-1/2" meter  | \$ 211.99                   |                 |
| 2" meter  | \$ 339.18                   |                 |
| 3" meter  | \$ 635.97                   |                 |
| 4" meter  | \$1,059.95                  |                 |
| 6" meter  | \$2,119.90                  |                 |
| Base Facility Charge: Residential and commercial (zero usage) |                             |                 |
| <1" meter   |                             | \$ 48.59        |
| 1" meter  |                             | \$ 121.48       |
| 1-1/2" meter  |                             | \$ 242.95       |
| 2" meter  |                             | \$ 388.72       |
| 3" meter  |                             | \$ 728.85       |
| 4" meter  |                             | \$1,214.75      |
| 6" meter  |                             | \$2,429.50      |
| Usage charge, per 1,000 gallons                               | \$ 2.90                     | \$ 3.32         |

Monthly Metered Purchased Sewer Service:

|  |          |          |
|--|----------|----------|
| Collection charge (Residential and Commercial/SFE) | \$ 33.92 | \$ 38.87 |
|--|----------|----------|

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/<br>Lee Forest/Winston Point | Johnston County      | \$ 4.55         | \$ 4.55         |
| 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>           |                      | \$ 52.55        | \$ 60.22        |

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<br>(Residential and commercial/SFE) | \$ 27.33 | \$ 38.87 |
| Usage Charge/1,000 gallons<br>(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   | \$ 52.55        | \$ 60.22        |
| White Oak High School | \$1,630.74      | \$1,868.71      |
| Child Castle Daycare  | \$ 202.85       | \$ 232.45       |
| Pantry                | \$ 107.74       | \$ 123.46       |

FAIRFIELD MOUNTAIN/APPLE VALLEY (a.k.a. RUMBLING BALD) SERVICE AREA, HIGHLAND SHORES  
SUBDIVISION AND LAUREL MOUNTAIN ESTATES

Monthly Sewer Rates:

| <u>Residential</u>   | <u>Existing</u> | <u>Proposed</u> |
|--|-----------------|-----------------|
| Collection charge/dwelling unit  | \$ 17.17        | \$ 38.87        |
| Treatment charge/dwelling unit   | \$ 69.50        | \$ 69.50        |
| Total monthly flat rate/dwelling charge  | \$ 86.67        | \$ 108.37       |
| <u>Commercial and Other</u>  |                 |                 |
| Minimum monthly collection and treatment charge  | \$ 86.67        | \$ 108.37       |
| Monthly collection and treatment charge for<br>Customers who do not take water service<br>(per single family equivalent) | \$ 86.67        | \$ 108.37       |
| <u>Treatment charge per dwelling unit</u>  |                 |                 |
| 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)  | \$ 12.16        | \$ 13.93        |

**FAIRFIELD SAPPHIRE VALLEY SERVICE AREA**

**Monthly Sewer Rates:**

| Residential  | <u>Existing</u> | <u>Proposed</u> |
|--|-----------------|-----------------|
| Flat Rate, per dwelling unit   | \$ 35.52        |                 |
| Commercial and other   |                 |                 |
| Minimum rate   | \$ 35.52        |                 |
| Customers who do not take water service (per single family equivalent) | \$ 35.52        |                 |
| Base Facility Charges<br>(based on meter size with zero usage)         |                 |                 |
|  | <u>Existing</u> | <u>Proposed</u> |
| 5/8" meter   | \$ 15.62        |                 |
| 3/4" meter   | \$ 23.43        |                 |
| 1" meter   | \$ 39.04        |                 |
| 1-1/2" meter   | \$ 78.08        |                 |
| 2" meter   | \$ 124.92       |                 |
| 3" meter   | \$ 234.23       |                 |
| 4" meter   | \$ 390.39       |                 |
| 6" meter   | \$ 780.78       |                 |

**Monthly Metered Sewer Service:**

|  |         |            |
|--|---------|------------|
| Base Facility Charges: Residential and Commercial (zero usage) |         |            |
| <1" meter  |         | \$ 48.59   |
| 1" meter   |         | \$ 121.48  |
| 1-1/2" meter   |         | \$ 242.95  |
| 2" meter   |         | \$ 388.72  |
| 3" meter   |         | \$ 728.85  |
| 4" meter   |         | \$1,214.75 |
| 6" meter   |         | \$2,429.50 |
| Usage charge, per 1,000 gallons                                | \$ 7.88 | \$ 3.32    |

**Monthly Flat Rate Sewer Service:**

Multi-residential customers who are served by a  
Master meter shall be charged the flat rate per unit

**NAGS HEAD SERVICE AREA:**

**Monthly Metered Sewer Service: (Commercial)**

|   |                 |                 |
|---|-----------------|-----------------|
| Base Facility Charges (based on meter size with zero usage) |                 |                 |
|   | <u>Existing</u> | <u>Proposed</u> |
| <1" meter   | \$ 18.48        |                 |
| 1" meter  | \$ 46.10        |                 |
| 1-1/2" meter  | \$ 92.19        |                 |
| 2" meter  | \$ 147.51       |                 |
| 3" meter  | \$ 276.58       |                 |
| 4" meter  | \$ 460.95       |                 |
| 6" meter  | \$ 921.93       |                 |
| Usage charge, per 1,000 gallons                             | \$ 9.31         |                 |
| Minimum Monthly Charge                                      | \$ 62.65        |                 |

|  | <u>Existing</u> | <u>Proposed</u> |
|--|-----------------|-----------------|
| <u>Monthly Flat Rate Sewer Service:</u>  | \$ 62.65        |                 |
| <u>Monthly Metered Sewer Service:</u>  |                 |                 |
| Base Facility Charges: Residential and Commercial (zero usage)                                       |                 |                 |
|  | <u>Existing</u> | <u>Proposed</u> |
| <1" meter  |                 | \$ 48.59        |
| 1" meter   |                 | \$ 121.48       |
| 1-1/2" meter   |                 | \$ 242.95       |
| 2" meter   |                 | \$ 388.72       |
| 3" meter   |                 | \$ 728.85       |
| 4" meter   |                 | \$1,214.75      |
| 6" meter   |                 | \$2,429.50      |
| Usage charge, per 1,000 gallons  |                 | \$ 3.32         |
| <u>Monthly Flat Rate Sewer Service:</u>  |                 | \$ 60.22        |
| Multi-residential customers who are served by a Master meter shall be charged the flat rate per unit |                 |                 |

CAROLINA TRACE DEVELOPMENT

|  |  |                 |
|--|--|-----------------|
| <u>Monthly Metered Sewer Rates:</u>                            |  |                 |
| Base Charge, zero usage  | <u>Existing</u><br>\$ 35.41<br>(minimum) | <u>Proposed</u> |
| Usage Charge, per 1,000 gallons                                | \$ 8.38                                  |                 |
| <u>Monthly Metered Sewer Service:</u>                          |  |                 |
| Base Facility Charges: Residential and Commercial (zero usage) |  |                 |
|  | <u>Existing</u>                          | <u>Proposed</u> |
| <1" meter  |  | \$ 48.59        |
| 1" meter   |  | \$ 121.48       |
| 1-1/2" meter   |  | \$ 242.95       |
| 2" meter   |  | \$ 388.72       |
| 3" meter   |  | \$ 728.85       |
| 4" meter   |  | \$1,214.75      |
| 6" meter   |  | \$2,429.50      |
| Usage charge, per 1,000 gallons                                |  | \$ 3.32         |

CONNESTEE FALLS SUBDIVISION

|  |                 |                 |
|--|-----------------|-----------------|
| Monthly Flat Rate  | \$ 45.11        |                 |
| Monthly Metered Service  |                 |                 |
| Base Charge, zero usage  |                 |                 |
| 5/8" x3/4" meter   | \$ 26.86        |                 |
| 1" meter   | \$ 67.15        |                 |
| 2" meter   | \$ 219.22       |                 |
| Usage Charge, per 1,000 gallons                                | \$ 6.75         |                 |
| <u>Monthly Metered Sewer Service:</u>                          |                 |                 |
| Base Facility Charges: Residential and Commercial (zero usage) |                 |                 |
|  | <u>Existing</u> | <u>Proposed</u> |
| <1" meter  |                 | \$ 48.59        |

|   | <u>Existing</u> | <u>Proposed</u> |
|---|-----------------|-----------------|
| 1" meter                                |                 | \$ 121.48       |
| 1-1/2" meter                            |                 | \$ 242.95       |
| 2" meter                                |                 | \$ 388.72       |
| 3" meter                                |                 | \$ 728.85       |
| 4" meter                                |                 | \$1,214.75      |
| 6" meter                                |                 | \$2,429.50      |
| Usage charge, per 1,000 gallons         |                 | \$ 3.32         |
| <u>Monthly Flat Rate Sewer Service:</u> |                 | \$ 60.22        |

Multi-residential customers who are served by a  
Master meter shall be charged the flat rate per unit

#### WATER UTILITY SERVICE

#### FAIRFIELD HARBOUR SERVICE AREA

##### Monthly Metered Water Service

|                                    | <u>Existing</u> | <u>Proposed</u> |
|------------------------------------|-----------------|-----------------|
| Base Facility Charges (zero usage) |                 |                 |
| Residential                        | \$ 9.73         |                 |
| Commercial and Other:              |                 |                 |
| 5/8" meter                         | \$ 9.73         |                 |
| 3/4" meter                         | \$ 14.60        |                 |
| 1" meter                           | \$ 24.29        |                 |
| 1-1/2" meter                       | \$ 48.58        |                 |
| 2" meter                           | \$ 77.74        |                 |
| 3" meter                           | \$ 145.99       |                 |
| 4" meter                           | \$ 243.31       |                 |
| 6" meter                           | \$ 486.62       |                 |
| Usage Charge, per 1,000 gallons    | \$ 2.69         |                 |
| Monthly Water Availability Rate    | \$ 3.28         | \$ 3.28         |

#### BRADFIELD FARMS SUBDIVISION

|                                 |         |
|---------------------------------|---------|
| Base charge, zero usage         | \$ 8.29 |
| Usage charge, per 1,000 gallons | \$ 1.95 |

##### Monthly Metered Water Service: (Residential and Commercial)

|                                    | <u>Existing</u> | <u>Proposed</u> |
|------------------------------------|-----------------|-----------------|
| Base Facility Charges (zero usage) |                 |                 |
| < 1" meter                         |                 | \$ 12.84        |
| 1" meter                           |                 | \$ 32.10        |
| 1-1/2" meter                       |                 |                 |
| \$ 64.20                           |                 | \$ 102.72       |
| 2" meter                           |                 |                 |
| Usage Charge, per 1,000 gallons    | <u>Existing</u> | <u>Proposed</u> |
| Treated Water                      |                 | \$ 3.55         |

**SEWER UTILITY SERVICE**

**FAIRFIELD HARBOUR SERVICE AREA**

**Monthly Sewer Rates:**

| Residential  | <u>Existing</u> | <u>Proposed</u> |
|--|-----------------|-----------------|
| Flat Rate, per dwelling unit                                   | \$ 37.89        |                 |
| Commercial and other   |                 |                 |
| Monthly Flat Rate<br>(Customers who do not take water service) | \$ 37.89        |                 |
| Monthly Metered Rates (based on meter size with zero usage)    |                 |                 |
|  | <u>Existing</u> | <u>Proposed</u> |
| 5/8" meter   | \$ 10.17        |                 |
| 3/4" meter   | \$ 15.26        |                 |
| 1" meter   | \$ 25.43        |                 |
| 1-1/2" meter   | \$ 50.85        |                 |
| 2" meter   | \$ 81.36        |                 |
| 3" meter   | \$ 152.56       |                 |
| 4" meter   | \$ 254.26       |                 |
| 6" meter   | \$ 508.52       |                 |
| Usage charge, per 1,000 gallons                                | \$ 5.63         |                 |
| Monthly Sewer Availability Rate                                | \$ 2.64         | \$ 2.64         |

**BRADFIELD FARMS SUBDIVISION**

Residential Customer Monthly Flat Rate \$ 26.56

**SILVERTON and WOODLAND FARMS SUBDIVISION**

Monthly Bulk Flat Rate, per customer \$ 25.20

**HAWTHORN AT THE GREEN APARTMENTS**

Monthly Bulk Flat Rate, per REU \$ 25.20

**Monthly Sewer Rates:**

| Residential  | <u>Existing</u> | <u>Proposed</u> |
|--|-----------------|-----------------|
| Flat Rate, per dwelling unit                                   |                 | \$ 42.83        |
| Bulk Flat Rate, per REU  |                 | \$ 41.83        |
| Commercial and other   |                 |                 |
| Monthly Flat Rate<br>(Customers who do not take water service) |                 | \$ 42.83        |
| Monthly Metered Rates (based on meter size with zero usage)    |                 |                 |
|  | <u>Existing</u> | <u>Proposed</u> |
| <1" meter  | \$ 11.50        |                 |
| 1-1/2" meter   | \$ 57.50        |                 |
| 2" meter   | \$ 92.00        |                 |
| Usage Charge, per 1,000 gallons                                |                 | \$ 6.36         |

Carolina Water Service, Inc. of North Carolina  
Docket No. W-354, Sub 355  
For the 12 Months Ending December 31, 2016

Casselberry  
Exhibit No. 4  
Page 1 of 5

Billing Analysis for End of Period Customers at Present Rates

CWSNC Water

| Service Area                | Total |       |     |       |     |     |     |     |       |      |       |     |       |     |     |     |     | Total | Total | C Forest | Woodrun | Linville | Coan F | SappV  |
|-----------------------------|-------|-------|-----|-------|-----|-----|-----|-----|-------|------|-------|-----|-------|-----|-----|-----|-----|-------|-------|----------|---------|----------|--------|--------|
|                             | 5/8 R | 3/4 R | 1 R | 1.5 R | 2 R | 3 R | 4 R | 6 R | Fia 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        | 596   |       |     |       |     |     |     |     |       | 596  | 1     |     |       |     |     |     |     | 1     | 597   |          |         |          |        |        |
| Bahia Bay                   | 117   |       |     |       |     |     |     |     |       | 117  |       |     |       |     |     |     |     | 0     | 117   |          |         |          |        |        |
| Bear Paw                    | 336   | 3     |     |       |     |     |     |     |       | 339  | 5     | 1   |       |     |     |     |     | 6     | 345   |          |         |          |        |        |
| Beechbrook                  | 37    |       |     |       |     |     |     |     |       | 37   |       |     |       |     |     |     |     | 0     | 37    |          |         |          |        |        |
| Belvedere Plantation        | 1173  |       | 2   |       |     |     |     |     |       | 1175 | 4     | 2   |       | 7   | 4   |     |     | 17    | 1182  |          |         |          |        |        |
| Boni Creek                  | 306   |       |     |       |     |     |     |     |       | 306  | 1     |     |       |     |     |     |     | 1     | 307   |          |         |          |        |        |
| Brandywine Bay              | 838   |       | 2   |       | 1   |     |     |     |       | 841  | 10    | 3   | 1     |     |     |     |     | 14    | 855   |          |         |          |        |        |
| Buffalo Creek               | 274   |       |     |       |     |     |     |     |       | 274  |       |     |       |     |     |     |     | 0     | 274   |          |         |          |        |        |
| Chapel Hill                 | 96    |       |     |       |     |     |     |     |       | 96   |       |     |       |     |     |     |     | 0     | 96    |          |         |          |        |        |
| College Park                | 76    |       |     |       |     |     |     |     |       | 76   |       |     |       |     |     |     |     | 0     | 76    |          |         |          |        |        |
| Country Club Annex          | 24    |       |     |       |     |     |     |     |       | 24   |       |     |       |     |     |     |     | 0     | 24    |          |         |          |        |        |
| Country Hills               | 67    |       |     |       |     |     |     |     |       | 67   |       |     |       |     |     |     |     | 0     | 67    |          |         |          |        |        |
| Crestview                   | 38    |       |     |       |     |     |     |     |       | 38   |       |     |       |     |     |     |     | 0     | 38    |          |         |          |        |        |
| Crystal Mountain            | 49    |       |     |       |     |     |     |     |       | 49   |       |     |       |     |     |     |     | 0     | 49    |          |         |          |        |        |
| Lamplight/Danby/Wdsd Fall   | 1276  |       | 3   |       |     |     |     |     |       | 1279 | 3     | 2   | 1     | 1   |     |     |     | 7     | 1286  |          |         |          |        |        |
| Eagle Crossing              | 78    |       |     |       |     |     |     |     |       | 78   |       |     |       |     |     |     |     | 0     | 78    |          |         |          |        |        |
| Eastwood Forest             | 131   |       |     |       |     |     |     |     |       | 131  | 1     |     |       |     |     |     |     | 1     | 132   |          |         |          |        |        |
| Forest Brook/Olo lamp Place | 125   | 1     |     |       |     |     |     |     |       | 126  |       | 1   |       |     |     |     |     | 1     | 127   |          |         |          |        |        |
| Grandview at T-Square       | 74    |       |     |       |     |     |     |     |       | 74   | 1     |     |       |     |     |     |     | 1     | 75    |          |         |          |        |        |
| Harbor House Estates        | 62    |       |     |       |     |     |     |     |       | 62   |       |     |       |     |     |     |     | 0     | 62    |          |         |          |        |        |
| Heathfield                  | 63    |       |     |       |     |     |     |     |       | 63   |       | 1   |       |     |     |     |     | 1     | 64    |          |         |          |        |        |
| Heston Park                 |       |       |     |       |     |     |     |     |       | 0    | 1     |     | 2     | 7   |     |     |     | 10    | 10    |          |         |          |        |        |
| High Meadows                | 274   |       |     |       |     |     |     |     |       | 274  | 3     |     |       | 1   |     |     |     | 4     | 278   |          |         |          |        |        |
| Holly Acres                 | 53    |       |     |       |     |     |     |     |       | 53   |       | 1   |       |     |     |     |     | 1     | 54    |          |         |          |        |        |
| Hounds Ear                  | 417   |       | 6   | 1     |     |     |     |     |       | 424  | 8     | 2   |       | 3   |     |     |     | 13    | 437   |          |         |          |        |        |
| Huntington Forest           | 56    |       |     |       |     |     |     |     |       | 56   |       |     |       |     |     |     |     | 0     | 56    |          |         |          |        |        |



Carolina Water Service, Inc. of North Carolina  
Docket No. W-354, Sub 356  
For the 12 Months Ending December 31, 2016

Casselberry  
Exhibit No. 4  
Page 2 of 6

Billing Analysis for End of Period Customers at Present Rates

CWSNC Water

| Service Area         | Total |       |     |       |     |     |     |     |        |      | Total |     |       |     |     |     |     |       | Total | Total  | C Forest | Woodrun | Livville | Conn F | SappV |
|----------------------|-------|-------|-----|-------|-----|-----|-----|-----|--------|------|-------|-----|-------|-----|-----|-----|-----|-------|-------|--------|----------|---------|----------|--------|-------|
|                      | 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 |       |
| Kings Grant          | 177   |       | 1   |       |     |     |     |     |        | 178  | 1     |     |       |     |     |     |     | 1     | 179   |        |          |         |          |        |       |
| Larkhaven            | 148   | 18    |     |       |     |     |     |     |        | 165  |       |     |       |     |     |     |     | 0     | 165   |        |          |         |          |        |       |
| Lemmond Acres        | 32    |       |     |       |     |     |     |     |        | 32   | 1     |     |       |     |     |     |     | 1     | 33    |        |          |         |          |        |       |
| Meadow Glen          | 33    |       |     |       |     |     |     |     |        | 33   |       |     |       |     |     |     |     | 0     | 33    |        |          |         |          |        |       |
| Misty Mountain       | 141   |       |     |       |     |     |     |     |        | 141  |       |     |       |     |     |     |     | 0     | 141   |        |          |         |          |        |       |
| Monterey             | 27    |       |     |       |     |     |     |     |        | 27   |       |     |       |     |     |     |     | 0     | 27    |        |          |         |          |        |       |
| Mt Mitchell          | 205   |       |     |       |     |     |     | 18  |        | 221  | 2     |     | 2     | 1   |     |     |     | 5     | 226   |        |          |         |          |        |       |
| Nore                 | 125   |       |     |       |     |     |     |     |        | 125  |       |     |       |     |     |     |     | 0     | 125   |        |          |         |          |        |       |
| Oakdale terrace      | 43    |       |     |       |     |     |     |     |        | 43   |       |     |       |     |     |     |     | 0     | 43    |        |          |         |          |        |       |
| Olds Point           | 182   |       | 3   |       |     |     |     |     |        | 185  | 1     |     |       | 1   |     |     |     | 2     | 187   |        |          |         |          |        |       |
| Pinnacle Shores      | 154   |       |     |       |     |     |     |     |        | 154  | 8     |     |       |     |     |     |     | 9     | 163   |        |          |         |          |        |       |
| Powder Horn Mountain | 230   |       |     |       |     |     |     |     |        | 230  | 1     | 1   |       |     |     |     |     | 2     | 232   |        |          |         |          |        |       |
| Quail Ridge          | 168   |       | 2   |       |     |     |     |     |        | 170  | 1     |     |       |     |     |     |     | 1     | 171   |        |          |         |          |        |       |
| Queen's Harbor       | 115   |       |     |       |     |     |     |     |        | 115  | 1     |     |       |     |     | 1   |     | 2     | 117   |        |          |         |          |        |       |
| Ridges at Mt Harbor  |       |       |     |       |     |     |     | 63  |        | 63   | 1     |     |       | 1   |     |     |     | 2     | 65    |        |          |         |          |        |       |
| Riverwood            | 188   |       | 1   |       |     |     |     |     |        | 189  |       |     | 1     | 2   |     |     |     | 3     | 192   |        |          |         |          |        |       |
| Saddlewood           | 124   |       |     |       |     |     |     |     |        | 124  |       |     |       |     |     |     |     | 0     | 124   |        |          |         |          |        |       |
| Sherwood Forest      | 250   |       |     |       |     |     |     |     |        | 250  | 6     |     | 1     | 1   |     |     |     | 8     | 258   |        |          |         |          |        |       |
| Sherwood Park        | 96    |       |     |       |     |     |     |     |        | 96   |       |     | 1     |     |     |     |     | 1     | 97    |        |          |         |          |        |       |
| 5M Mountain          | 242   |       |     |       |     |     |     |     |        | 242  |       |     |       |     |     |     |     | 0     | 242   |        |          |         |          |        |       |
| Stone Hollow         | 223   |       |     |       |     |     |     |     |        | 223  | 1     |     |       |     |     |     |     | 1     | 224   |        |          |         |          |        |       |
| Suburban Heights     | 25    |       |     |       |     |     |     |     |        | 25   |       |     |       |     |     |     |     | 0     | 25    |        |          |         |          |        |       |
| Sugar Mountain       | 1287  |       | 1   |       |     |     |     |     |        | 1288 | 58    | 4   | 3     | 22  | 1   |     |     | 88    | 1388  |        |          |         |          |        |       |
| The Harbor/Point     | 1480  |       | 2   | 1     |     |     |     |     |        | 1483 | 15    | 3   | 1     | 3   |     |     | 2   | 24    | 1507  |        |          |         |          |        |       |
| Vander               | 251   |       |     |       |     |     |     |     |        | 251  | 1     |     |       | 3   |     |     |     | 4     | 255   |        |          |         |          |        |       |
| Watauga Vista        | 139   |       |     |       |     |     |     |     |        | 139  |       |     |       |     |     |     |     | 0     | 139   |        |          |         |          |        |       |
| Waterglyn            | 41    |       |     |       |     |     |     |     |        | 41   |       |     |       |     |     |     |     | 0     | 41    |        |          |         |          |        |       |
| Westwood Forest      | 119   |       |     |       |     |     |     |     |        | 119  |       |     |       |     |     |     |     | 0     | 119   |        |          |         |          |        |       |

Sep 19 2017

OFFICIAL COPY

Carolina Water Service, Inc. of North Carolina  
Docket No. W-354, Sub 356  
For the 12 Months Ending December 31, 2016

Casselberry  
Exhibit No. 4  
Page 3 of 5

Billing Analysis for End of Period Customers at Present Rates

CWSNC Water

|                   |       |       |     |       |     |     |     |     |        |       | Total |     |       |     |     |     |     |       | Total |   | Total |        | C Forest | Woodrun | Unville | Conn F | Sapp V |
|-------------------|-------|-------|-----|-------|-----|-----|-----|-----|--------|-------|-------|-----|-------|-----|-----|-----|-----|-------|-------|---|-------|--------|----------|---------|---------|--------|--------|
| Service Area      | 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   |   |       | avalib | avalib   | avalib  | avalib  | avalib |        |
|                   |       |       |     |       |     |     |     |     |        |       |       |     |       |     |     |     |     |       |       |   |       |        |          |         |         |        |        |
| Wildlife Bay      | 80    |       |     |       |     |     |     |     |        | 80    | 1     |     |       |     |     |     |     | 1     | 81    |   |       |        |          |         |         |        |        |
| Wildwood green    | 225   |       |     |       |     |     |     |     |        | 225   | 1     |     |       |     |     |     |     | 1     | 226   |   |       |        |          |         |         |        |        |
| Willowbrook       | 166   |       |     |       |     |     |     |     |        | 166   |       | 1   |       |     |     |     |     | 1     | 167   |   |       |        |          |         |         |        |        |
| Wolf Laurel       | 636   |       |     |       |     |     |     |     |        | 636   | 5     | 14  |       | 3   |     |     |     | 22    | 658   |   |       |        |          |         |         |        |        |
| Wood Traca        | 45    |       |     |       |     |     |     |     |        | 45    |       |     |       |     |     |     |     | 0     | 45    |   |       |        |          |         |         |        |        |
| Woodhaven Manor   | 77    |       | 1   |       |     |     |     |     |        | 78    |       |     |       |     |     |     |     | 0     | 76    |   |       |        |          |         |         |        |        |
| Mason Landing     | 11    |       |     |       |     |     |     |     |        | 11    | 1     |     |       | 1   |     |     |     | 2     | 13    |   |       |        |          |         |         |        |        |
| Unville Ridge     |       |       |     |       |     |     |     |     | 337    | 337   | 1     | 1   |       | 4   | 1   |     |     | 7     | 344   |   |       |        |          | 63      |         |        |        |
| Uniform           | 14145 | 20    | 24  | 2     | 1   | 0   | 0   | 0   | 416    | 14608 | 146   | 37  | 13    | 61  | 6   | 1   | 2   | 266   | 14674 | 0 | 0     | 63     |          |         |         |        |        |
| SkyLeaf Buildings | 44    |       |     |       |     |     |     |     |        | 44    |       |     |       |     |     |     |     | 0     | 44    |   |       |        |          |         |         |        |        |
| Total Uniform     | 14169 | 20    | 24  | 2     | 1   | 0   | 0   | 0   | 416    | 14652 | 146   | 37  | 13    | 61  | 6   | 1   | 2   | 266   | 14918 | 0 | 0     | 63     |          |         |         |        |        |

| 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   | avalib   | avalib  | avalib   | avalib | avalib |
| Clear Water Systm.       |       |       |     |       |     |     |     |     |        |      |       |     |       |     |     |     |     |       |       |          |         |          |        |        |
| Ashley Hills/Amber Acres | 1321  |       |     |       |     |     |     |     |        | 1321 | 4     |     |       |     |     |     |     | 4     | 1325  |          |         |          |        |        |
| Heather Glen             | 104   |       |     |       |     |     |     |     |        | 104  |       |     |       |     |     |     |     | 0     | 104   |          |         |          |        |        |
| Country Crossing         | 56    |       |     |       |     |     |     |     |        | 56   |       |     |       |     |     |     |     | 0     | 56    |          |         |          |        |        |
| Oaks Plantation          | 25    |       |     |       |     |     |     |     |        | 25   |       |     |       |     |     |     |     | 0     | 25    |          |         |          |        |        |
| Randsdell Forest         | 46    |       |     |       |     |     |     |     |        | 46   |       |     |       |     |     |     |     | 0     | 46    |          |         |          |        |        |
| Sandy Trails             | 114   |       |     |       |     |     |     |     |        | 114  |       |     |       |     |     |     |     | 0     | 114   |          |         |          |        |        |
| Stewarts Ridge           | 47    |       |     |       |     |     |     |     |        | 47   |       |     |       |     |     |     |     | 0     | 47    |          |         |          |        |        |
| Wilders Village          | 42    |       |     |       |     |     |     |     |        | 42   |       |     |       |     |     |     |     | 0     | 42    |          |         |          |        |        |
| Neuse Woods              |       |       |     |       |     |     |     |     | 99     | 99   |       |     |       |     |     |     |     | 0     | 99    |          |         |          |        |        |
| Tuckahoe                 | 87    |       |     |       |     |     |     |     |        | 87   |       |     |       |     |     |     |     | 0     | 87    |          |         |          |        |        |

Carolina Water Service, Inc. of North Carolina  
Docket No. W-354, Sub 356  
For the 12 Months Ending December 31, 2016

Casselberry  
Exhibit No. 4  
Page 4 of 5

Billing Analysis for End of Period Customers at Present Rates

| CWSNC Water               |       |       |     |       |     |     |     |     |        |       | Total |     |       |     |     |     |     |       | Total | Total  | C Forest | Woodrun | Linnville | Conn F | Sapp V |
|---------------------------|-------|-------|-----|-------|-----|-----|-----|-----|--------|-------|-------|-----|-------|-----|-----|-----|-----|-------|-------|--------|----------|---------|-----------|--------|--------|
| Service Area              | 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. | EDP   | avalib | avalib   | avalib  | avalib    | avalib |        |
| Jordan Woods              | 34    |       |     |       |     |     |     |     |        | 34    |       |     |       |     |     |     |     | 0     | 34    |        |          |         |           |        |        |
| Hidden Hollow             | 47    |       |     |       |     |     |     |     |        | 47    |       |     |       |     |     |     |     | 0     | 47    |        |          |         |           |        |        |
| Undsey Point              | 30    |       |     |       |     |     |     |     |        | 30    |       |     |       |     |     |     |     | 0     | 30    |        |          |         |           |        |        |
|                           |       |       |     |       |     |     |     |     |        |       |       |     |       |     |     |     |     |       |       |        |          |         |           |        |        |
| Total Clearwater          | 1953  | 0     | 0   | 0     | 0   | 0   | 0   | 0   | 99     | 2052  | 4     | 0   | 0     | 0   | 0   | 0   | 0   | 4     | 2056  |        |          |         |           |        |        |
| New Under Uniform Rates   |       |       |     |       |     |     |     |     |        |       |       |     |       |     |     |     |     |       |       |        |          |         |           |        |        |
| Treasure Cove             | 284   |       | 1   |       | 1   |     |     |     |        | 286   |       |     |       |     |     |     |     | 0     | 288   |        |          |         |           |        |        |
| Forest Hills              | 119   |       |     |       |     |     |     |     |        | 119   | 1     | 2   | 3     |     |     |     |     | 6     | 125   |        |          |         |           |        |        |
| Carolina Trace            | 1573  |       | 1   |       | 2   |     |     |     |        | 1576  | 24    | 2   | 1     | 3   |     |     |     | 30    | 1606  |        |          |         |           |        |        |
| Conestee Falls            | 1356  |       |     |       |     |     |     |     |        | 1356  | 16    |     |       | 3   |     |     |     | 19    | 1375  |        |          |         |           | 524    |        |
| Fairfield Sapphire Valley | 1533  | 4     | 5   | 32    | 17  |     |     |     |        | 1591  | 38    | 2   | 7     | 8   | 1   |     |     | 56    | 1647  |        |          |         |           | 748    |        |
| Fairfield MU/Apple Valley | 1001  | 17    | 12  |       |     |     |     |     |        | 1030  | 46    | 4   | 4     | 4   |     |     |     | 58    | 1066  |        |          |         |           |        |        |
| Elk River                 | 2     | 257   | 31  |       |     |     |     |     |        | 290   | 28    | 1   |       | 4   |     |     |     | 33    | 323   |        |          |         |           |        |        |
|                           |       |       |     |       |     |     |     |     |        |       |       |     |       |     |     |     |     |       |       |        |          |         |           |        |        |
| Purchased Water Systems   |       |       |     |       |     |     |     |     |        |       |       |     |       |     |     |     |     |       |       |        |          |         |           |        |        |
| Carolina Forest           | 197   |       | 1   |       |     |     |     |     |        | 198   | 4     | 1   | 1     |     |     |     |     | 6     | 204   | 734    |          |         |           |        |        |
| High Vista                | 234   |       | 1   |       |     |     |     |     |        | 235   | 1     |     |       | 2   |     |     |     | 3     | 238   |        |          |         |           |        |        |
| Riverview                 | 180   |       |     |       |     |     |     |     |        | 180   | 5     |     |       |     |     |     |     | 5     | 185   |        |          |         |           |        |        |
| Whispering Pines          | 1519  |       | 15  |       |     |     |     |     |        | 1534  | 28    | 5   | 5     | 1   |     | 1   |     | 40    | 1574  |        |          |         |           |        |        |
| White Oak Plantation      | 507   |       |     |       |     |     |     |     |        | 507   |       |     | 1     |     |     |     |     | 1     | 508   |        |          |         |           |        |        |
| Woodrun                   | 463   |       |     |       |     |     |     |     |        | 463   | 4     | 1   |       |     |     |     |     | 5     | 468   |        | 693      |         |           |        |        |
| Yorktown                  | 107   |       |     |       |     |     |     |     |        | 107   |       |     |       |     |     |     |     | 0     | 107   |        |          |         |           |        |        |
| Zemosa Acres              | 238   |       | 2   |       |     |     |     |     |        | 241   |       | 1   |       |     |     |     |     | 1     | 242   |        |          |         |           |        |        |
|                           |       |       |     |       |     |     |     |     |        |       |       |     |       |     |     |     |     |       |       |        |          |         |           |        |        |
| Total                     | 9324  | 278   | 69  | 32    | 20  | 0   | 0   | 0   | 0      | 9723  | 195   | 19  | 22    | 25  | 1   | 1   | 0   | 263   | 8986  | 734    | 693      | 0       | 524       | 748    |        |
|                           |       |       |     |       |     |     |     |     |        |       |       |     |       |     |     |     |     |       |       |        |          |         |           |        |        |
| Grant Total               | 25466 | 298   | 83  | 34    | 21  | 0   | 0   | 0   | 515    | 26427 | 345   | 58  | 35    | 86  | 7   | 2   | 2   | 533   | 26950 | 734    | 693      | 63      | 524       | 748    |        |

Carolina Water Service, Inc. of North Carolina  
Docket No. W-354; Sub 356  
For the 12 Months Ending December 31, 2016

Casselberry  
Exhibit No. 4  
Page 6 of 5

Billing Analysis for End of Period Customers at Present Rates

| 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  | 952   | 94    | 5   |       |     |     |     |     |        | 1051 |       |     |       |     |     |     |     | 0     | 1051  |        |        |        |        |        |
| Fairfield Harbor | 1840  | 2     | 2   |       |     |     |     |     |        | 1844 | 22    | 1   | 2     | 3   |     |     |     | 28    | 1872  | 874    |        |        |        |        |
| Total            | 2792  | 96    | 7   | 0     | 0   | 0   | 0   | 0   | 0      | 2895 | 22    | 1   | 2     | 3   | 0   | 0   | 0   | 28    | 2923  | 874    |        |        |        |        |

Carolina Water Service, Inc. of North Carolina  
Docket No. W-354, Sub 356  
For the 12 Months Ending December 31, 2016

Casselberry  
Exhibit No. 5  
Page 1 of 4

### Billing Analysis for Consolidated End of Period Customers at Proposed Rates

CWSNC Water

| Service Area                | Total |       |     |       |     |     |     |     |       |      | Total |     |       |     |     |     |     |       | Total | C Forest | Woodrun | Linnfile | Conn F | Sappt. V |
|-----------------------------|-------|-------|-----|-------|-----|-----|-----|-----|-------|------|-------|-----|-------|-----|-----|-----|-----|-------|-------|----------|---------|----------|--------|----------|
|                             | 5/8 R | 3/4 R | 1 R | 1.5 R | 2 R | 3 R | 4 R | 6 R | Fla R | RES  | 5/8 C | 1 C | 1.5 C | 2 C | 3 C | 4 C | 8 C | Comm. | EOP   | avalib   | avalib  | avalib   | avalib | avalib   |
| Abington/InterLarken        | 598   |       |     |       |     |     |     |     |       | 598  | 1     |     |       |     |     |     |     | 1     | 597   |          |         |          |        |          |
| Bahia Bay                   | 117   |       |     |       |     |     |     |     |       | 117  |       |     |       |     |     |     |     | 0     | 117   |          |         |          |        |          |
| Bear Paw                    | 338   | 3     |     |       |     |     |     |     |       | 339  | 5     | 1   |       |     |     |     |     | 8     | 345   |          |         |          |        |          |
| Beechbrook                  | 37    |       |     |       |     |     |     |     |       | 37   |       |     |       |     |     |     |     | 0     | 37    |          |         |          |        |          |
| Belvedere Plantation        | 1173  |       | 2   |       |     |     |     |     |       | 1175 | 4     | 2   |       |     | 7   | 4   |     | 17    | 1182  |          |         |          |        |          |
| Bent Creek                  | 308   |       |     |       |     |     |     |     |       | 308  | 1     |     |       |     |     |     |     | 1     | 307   |          |         |          |        |          |
| Brandywine Bay              | 838   |       | 2   |       |     | 1   |     |     |       | 841  | 10    | 3   | 1     |     |     |     |     | 14    | 855   |          |         |          |        |          |
| Buffalo Creek               | 274   |       |     |       |     |     |     |     |       | 274  |       |     |       |     |     |     |     | 0     | 274   |          |         |          |        |          |
| Chapel Hill                 | 98    |       |     |       |     |     |     |     |       | 98   |       |     |       |     |     |     |     | 0     | 98    |          |         |          |        |          |
| College Park                | 79    |       |     |       |     |     |     |     |       | 79   |       |     |       |     |     |     |     | 0     | 79    |          |         |          |        |          |
| Country Club Annex          | 24    |       |     |       |     |     |     |     |       | 24   |       |     |       |     |     |     |     | 0     | 24    |          |         |          |        |          |
| Country Hills               | 87    |       |     |       |     |     |     |     |       | 87   |       |     |       |     |     |     |     | 0     | 87    |          |         |          |        |          |
| Crestview                   | 38    |       |     |       |     |     |     |     |       | 38   |       |     |       |     |     |     |     | 0     | 38    |          |         |          |        |          |
| Crystal Mountain            | 49    |       |     |       |     |     |     |     |       | 49   |       |     |       |     |     |     |     | 0     | 49    |          |         |          |        |          |
| Lampigh/Danby/Wdsd Fall     | 1278  |       | 3   |       |     |     |     |     |       | 1279 | 3     | 2   | 1     | 1   |     |     |     | 7     | 1288  |          |         |          |        |          |
| Eagle Crossing              | 78    |       |     |       |     |     |     |     |       | 78   |       |     |       |     |     |     |     | 0     | 78    |          |         |          |        |          |
| Eastwood Forest             | 131   |       |     |       |     |     |     |     |       | 131  | 1     |     |       |     |     |     |     | 1     | 132   |          |         |          |        |          |
| Forest Brook/Olo lamp Place | 125   | 1     |     |       |     |     |     |     |       | 128  |       | 1   |       |     |     |     |     | 1     | 127   |          |         |          |        |          |
| Grandview at T-Square       | 74    |       |     |       |     |     |     |     |       | 74   | 1     |     |       |     |     |     |     | 1     | 75    |          |         |          |        |          |
| Harbor House Estates        | 82    |       |     |       |     |     |     |     |       | 82   |       |     |       |     |     |     |     | 0     | 82    |          |         |          |        |          |
| Heathfield                  | 83    |       |     |       |     |     |     |     |       | 83   |       | 1   |       |     |     |     |     | 1     | 84    |          |         |          |        |          |
| Heston Park                 |       |       |     |       |     |     |     |     |       | 0    | 1     |     | 2     | 7   |     |     |     | 10    | 10    |          |         |          |        |          |
| High Meadows                | 274   |       |     |       |     |     |     |     |       | 274  | 3     |     |       | 1   |     |     |     | 4     | 278   |          |         |          |        |          |
| Holly Acres                 | 53    |       |     |       |     |     |     |     |       | 53   |       | 1   |       |     |     |     |     | 1     | 54    |          |         |          |        |          |
| Hounds Ear                  | 417   |       | 8   | 1     |     |     |     |     |       | 424  | 8     | 2   |       | 3   |     |     |     | 13    | 437   |          |         |          |        |          |
| Huntington Forest           | 58    |       |     |       |     |     |     |     |       | 58   |       |     |       |     |     |     |     | 0     | 58    |          |         |          |        |          |
| Kings Grant                 | 177   |       | 1   |       |     |     |     |     |       | 178  | 1     |     |       |     |     |     |     | 1     | 179   |          |         |          |        |          |
| Larkhaven                   | 149   | 19    |     |       |     |     |     |     |       | 165  |       |     |       |     |     |     |     | 0     | 165   |          |         |          |        |          |
| Lemmond Acres               | 32    |       |     |       |     |     |     |     |       | 32   | 1     |     |       |     |     |     |     | 1     | 33    |          |         |          |        |          |

Carolina Water Service, Inc. of North Carolina  
Docket No. W-354, Sub 356  
For the 12 Months Ending December 31, 2016

Casselberry  
Exhibit No. 5  
Page 2 of 4

Billing Analysis for Consolidated End of Period Customers at Proposed Rates

CWSNC Water

| Service Area         | 5/8 R | 3/4 R | 1 R | 1.5 R | 2 R | 3 R | 4 R | 6 R | Flat R | Total<br>RES | 5/8 C | 1 C | 1.5 C | 2 C | 3 C | 4 C | 6 C | Total<br>Comm. | Total<br>EOP | C Forest<br>availb | Woodrun<br>availb | Unvillo<br>availb | Conn F<br>availb | Sapph. V<br>availb |
|----------------------|-------|-------|-----|-------|-----|-----|-----|-----|--------|--------------|-------|-----|-------|-----|-----|-----|-----|----------------|--------------|--------------------|-------------------|-------------------|------------------|--------------------|
| Meadow Glen          | 33    |       |     |       |     |     |     |     |        | 33           |       |     |       |     |     |     |     | 0              | 33           |                    |                   |                   |                  |                    |
| Misty Mountain       | 141   |       |     |       |     |     |     |     |        | 141          |       |     |       |     |     |     |     | 0              | 141          |                    |                   |                   |                  |                    |
| Monterey             | 27    |       |     |       |     |     |     |     |        | 27           |       |     |       |     |     |     |     | 0              | 27           |                    |                   |                   |                  |                    |
| Mt Mitchell          | 205   |       |     |       |     |     |     |     | 16     | 221          | 2     |     | 2     | 1   |     |     |     | 5              | 228          |                    |                   |                   |                  |                    |
| Nero                 | 125   |       |     |       |     |     |     |     |        | 125          |       |     |       |     |     |     |     | 0              | 125          |                    |                   |                   |                  |                    |
| Oakdale Terrace      | 43    |       |     |       |     |     |     |     |        | 43           |       |     |       |     |     |     |     | 0              | 43           |                    |                   |                   |                  |                    |
| Old Point            | 192   |       | 3   |       |     |     |     |     |        | 195          | 1     |     |       | 1   |     |     |     | 2              | 197          |                    |                   |                   |                  |                    |
| Pinnacle Shores      | 154   |       |     |       |     |     |     |     |        | 154          | 9     |     |       |     |     |     |     | 9              | 163          |                    |                   |                   |                  |                    |
| Powder Horn Mountain | 230   |       |     |       |     |     |     |     |        | 230          | 1     | 1   |       |     |     |     |     | 2              | 232          |                    |                   |                   |                  |                    |
| Quail Ridge          | 188   |       | 2   |       |     |     |     |     |        | 170          | 1     |     |       |     |     |     |     | 1              | 171          |                    |                   |                   |                  |                    |
| Queen's Harbor       | 115   |       |     |       |     |     |     |     |        | 115          | 1     |     |       |     |     | 1   |     | 2              | 117          |                    |                   |                   |                  |                    |
| Ridges at Mt Harbor  |       |       |     |       |     |     |     |     | 63     | 63           | 1     |     |       | 1   |     |     |     | 2              | 65           |                    |                   |                   |                  |                    |
| Riverwood            | 188   |       | 1   |       |     |     |     |     |        | 189          |       |     | 1     | 2   |     |     |     | 3              | 192          |                    |                   |                   |                  |                    |
| Saddlewood           | 124   |       |     |       |     |     |     |     |        | 124          |       |     |       |     |     |     |     | 0              | 124          |                    |                   |                   |                  |                    |
| Sherwood Forest      | 250   |       |     |       |     |     |     |     |        | 250          | 6     |     | 1     | 1   |     |     |     | 8              | 258          |                    |                   |                   |                  |                    |
| Sherwood Park        | 96    |       |     |       |     |     |     |     |        | 96           |       |     | 1     |     |     |     |     | 1              | 97           |                    |                   |                   |                  |                    |
| Ski Mountain         | 242   |       |     |       |     |     |     |     |        | 242          |       |     |       |     |     |     |     | 0              | 242          |                    |                   |                   |                  |                    |
| Stone Hollow         | 223   |       |     |       |     |     |     |     |        | 223          | 1     |     |       |     |     |     |     | 1              | 224          |                    |                   |                   |                  |                    |
| Suburban Heights     | 25    |       |     |       |     |     |     |     |        | 25           |       |     |       |     |     |     |     | 0              | 25           |                    |                   |                   |                  |                    |
| Sugar Mountain       | 1297  |       | 1   |       |     |     |     |     |        | 1298         | 58    | 4   | 3     | 22  | 1   |     |     | 88             | 1386         |                    |                   |                   |                  |                    |
| The Harbor/Point     | 1480  |       | 2   | 1     |     |     |     |     |        | 1483         | 15    | 3   | 1     | 3   |     |     | 2   | 24             | 1507         |                    |                   |                   |                  |                    |
| Vander               | 251   |       |     |       |     |     |     |     |        | 251          | 1     |     |       | 3   |     |     |     | 4              | 255          |                    |                   |                   |                  |                    |
| Walden Vista         | 139   |       |     |       |     |     |     |     |        | 139          |       |     |       |     |     |     |     | 0              | 139          |                    |                   |                   |                  |                    |
| Waterlyn             | 41    |       |     |       |     |     |     |     |        | 41           |       |     |       |     |     |     |     | 0              | 41           |                    |                   |                   |                  |                    |
| Westwood Forest      | 118   |       |     |       |     |     |     |     |        | 118          |       |     |       |     |     |     |     | 0              | 118          |                    |                   |                   |                  |                    |
| Wildlife Bay         | 80    |       |     |       |     |     |     |     |        | 80           | 1     |     |       |     |     |     |     | 1              | 81           |                    |                   |                   |                  |                    |
| Wildwood green       | 225   |       |     |       |     |     |     |     |        | 225          | 1     |     |       |     |     |     |     | 1              | 226          |                    |                   |                   |                  |                    |
| Willowbrook          | 168   |       |     |       |     |     |     |     |        | 168          |       | 1   |       |     |     |     |     | 1              | 167          |                    |                   |                   |                  |                    |
| Wolf Laurel          | 638   |       |     |       |     |     |     |     |        | 638          | 5     | 14  |       | 3   |     |     |     | 22             | 658          |                    |                   |                   |                  |                    |

Carolina Water Service, Inc. of North Carolina  
Docket No. W-354, Sub 356  
For the 12 Months Ending December 31, 2016

Casselberry  
Exhibit No. 5  
Page 3 of 4

Billing Analysis for Consolidated End of Period Customers at Proposed Rates

CWSNC Water

| Service Area             | 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  |    |
| Wood Tract               | 45    |       |     |       |     |     |     |     |        | 45   |       |     |       |     |     |     |     | 0     | 45   |    |
| Woodhaven Manor          | 77    |       | 1   |       |     |     |     |     |        | 78   |       |     |       |     |     |     |     | 0     | 78   |    |
| Mason Landing            | 11    |       |     |       |     |     |     |     |        | 11   | 1     |     |       | 1   |     |     |     | 2     | 13   |    |
| Uxville Ridge            |       |       |     |       |     |     |     |     | 337    | 337  | 1     | 1   |       | 4   | 1   |     |     | 7     | 344  | 83 |
| SkyFeet                  | 44    |       |     |       |     |     |     |     |        | 44   |       |     |       |     |     |     |     | 0     | 44   |    |
| Ashley Hills/Amber Acres | 1321  |       |     |       |     |     |     |     |        | 1321 | 4     |     |       |     |     |     |     | 4     | 1325 |    |
| Heather Glen             | 104   |       |     |       |     |     |     |     |        | 104  |       |     |       |     |     |     |     | 0     | 104  |    |
| Country Crossing         | 58    |       |     |       |     |     |     |     |        | 58   |       |     |       |     |     |     |     | 0     | 58   |    |
| Oaks Plantation          | 25    |       |     |       |     |     |     |     |        | 25   |       |     |       |     |     |     |     | 0     | 25   |    |
| Randsdell Forest         | 46    |       |     |       |     |     |     |     |        | 46   |       |     |       |     |     |     |     | 0     | 46   |    |
| Sandy Trails             | 114   |       |     |       |     |     |     |     |        | 114  |       |     |       |     |     |     |     | 0     | 114  |    |
| Stewarts Ridge           | 47    |       |     |       |     |     |     |     |        | 47   |       |     |       |     |     |     |     | 0     | 47   |    |
| Wilders Village          | 42    |       |     |       |     |     |     |     |        | 42   |       |     |       |     |     |     |     | 0     | 42   |    |
| Neuse Woods              |       |       |     |       |     |     |     |     | 99     | 99   |       |     |       |     |     |     |     | 0     | 99   |    |
| Tuckahoe                 | 87    |       |     |       |     |     |     |     |        | 87   |       |     |       |     |     |     |     | 0     | 87   |    |
| Jordan Woods             | 34    |       |     |       |     |     |     |     |        | 34   |       |     |       |     |     |     |     | 0     | 34   |    |
| Hidden Hollow            | 47    |       |     |       |     |     |     |     |        | 47   |       |     |       |     |     |     |     | 0     | 47   |    |
| Lindsay Point            | 30    |       |     |       |     |     |     |     |        | 30   |       |     |       |     |     |     |     | 0     | 30   |    |

Now Under Uniform Rates

| 0                         |       |     |    |    |    |   |   |   |     |       |     |    |    |    |   |   |   |     |       |
|---------------------------|-------|-----|----|----|----|---|---|---|-----|-------|-----|----|----|----|---|---|---|-----|-------|
| Treasure Cove             | 204   |     | 1  |    | 1  |   |   |   |     | 206   |     |    |    |    |   |   |   | 0   | 206   |
| Forest Hills              | 119   |     |    |    |    |   |   |   |     | 119   | 1   | 2  | 3  |    |   |   |   | 6   | 125   |
| Conestee Falls            | 1356  |     |    |    |    |   |   |   |     | 1356  | 19  |    |    | 3  |   |   |   | 19  | 1375  |
| Fairfield Sapphire Valley | 1533  | 4   | 5  | 32 | 17 |   |   |   |     | 1591  | 36  | 2  | 7  | 8  | 1 |   |   | 56  | 1647  |
| Fairfield Mt/Apple Valley | 1001  | 17  | 12 |    |    |   |   |   |     | 1030  | 46  | 4  | 4  | 4  |   |   |   | 58  | 1086  |
| Total Uniform             | 20435 | 41  | 42 | 34 | 19 | 0 | 0 | 0 | 516 | 21086 | 251 | 45 | 27 | 70 | 7 | 1 | 2 | 403 | 21495 |
| Elk River                 | 2     | 257 | 31 |    |    |   |   |   |     |       | 28  | 1  |    | 4  |   |   |   | 33  | 33    |

Carolina Water Service, Inc. of North Carolina  
Docket No. W-354, Sub 355  
For the 12 Months Ending December 31, 2016

Casselberry  
Exhibit No. 5  
Page 4 of 4

Billing Analysis for Consolidated End of Period Customers at Proposed Rates

CWSNC Water

| Service Area            | Total |       |     |       |     |     |     |     |        |      |       |     |       |     |     |     |     | Total | Total | C Forest | Woodrun | Linville | Conn F | Sapph. 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   |  |
| Purchased Water Systems |       |       |     |       |     |     |     |     |        |      |       |     |       |     |     |     |     |       |       |          |         |          |        |          |  |
| Carolina Traco          | 1573  |       | 1   |       | 2   |     |     |     |        | 1578 | 24    | 2   | 1     | 3   |     |     |     |       | 30    | 1608     |         |          |        |          |  |
| Carolina Forest         | 197   |       | 1   |       |     |     |     |     |        | 198  | 4     | 1   | 1     |     |     |     |     | 8     | 204   | 734      |         |          |        |          |  |
| High Vista              | 234   |       | 1   |       |     |     |     |     |        | 235  | 1     |     |       | 2   |     |     |     | 3     | 238   |          |         |          |        |          |  |
| Riverpointe             | 190   |       |     |       |     |     |     |     |        | 190  | 5     |     |       |     |     |     |     | 5     | 195   |          |         |          |        |          |  |
| Whispering Pines        | 1519  |       | 15  |       |     |     |     |     |        | 1534 | 28    | 5   | 5     | 1   |     | 1   |     | 40    | 1574  |          |         |          |        |          |  |
| White Oak Plantation    | 507   |       |     |       |     |     |     |     |        | 507  |       |     | 1     |     |     |     |     | 1     | 508   |          |         |          |        |          |  |
| Woodrun                 | 463   |       |     |       |     |     |     |     |        | 463  | 4     | 1   |       |     |     |     |     | 5     | 468   |          |         | 693      |        |          |  |
| Yocktown                | 107   |       |     |       |     |     |     |     |        | 107  |       |     |       |     |     |     |     | 0     | 107   |          |         |          |        |          |  |
| Zemosa Acres            | 239   |       | 2   |       |     |     |     |     |        | 241  |       | 1   |       |     |     |     |     | 1     | 242   |          |         |          |        |          |  |

| Service Area     | Total |       |     |       |     |     |     |     |        |      |       |     |       |     |     |     |     | Total | Total | availb | availb | availb | availb | availb |  |  |
|------------------|-------|-------|-----|-------|-----|-----|-----|-----|--------|------|-------|-----|-------|-----|-----|-----|-----|-------|-------|--------|--------|--------|--------|--------|--|--|
|                  | 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   |        |        |        |        |        |  |  |
| Bradfield Farms  | 952   | 94    | 5   |       |     |     |     |     |        | 1051 |       |     |       |     |     |     |     | 0     |       |        |        |        |        |        |  |  |
| Fairfield Harbor | 1040  | 2     | 2   |       |     |     |     |     |        | 1044 | 22    | 1   | 2     | 3   |     |     |     | 28    |       | 874    |        |        |        |        |  |  |
| Total            | 2192  | 96    | 7   | 0     | 0   | 0   | 0   | 0   | 0      | 2095 | 22    | 1   | 2     | 3   | 0   | 0   | 0   | 28    | 2923  | 874    |        |        |        |        |  |  |



Carolina Water Service, Inc. of North Carolina  
 Docket No. W-354, Sub 356  
 For the 12 Months Ending December 31, 2016

CWSNC Sewer

Billing Analysis for End of Period Customers at Present Rates

Cassellberry  
 Exhibit No. 6  
 Page 1 of 2

| Service Area            | 5/8 R | 1 R | 1.5 R | 2 R | 3 R | Flat R | Res.  | 5/8 C | 1 C | 1.5 C | 2 C | 3 C | 4 C | 5 C | Flat Comm | Total Comm | Total EOP | Availability | Availability |
|-------------------------|-------|-----|-------|-----|-----|--------|-------|-------|-----|-------|-----|-----|-----|-----|-----------|------------|-----------|--------------|--------------|
| Ashley Hills            | 595   |     |       |     |     | 110    | 705   | 1     |     |       |     |     |     |     |           | 1          | 707       |              |              |
| Bear Paw                | 1,157 |     |       |     |     | 27     | 1,184 |       |     |       |     |     |     |     |           | 0          | 1,184     |              |              |
| Belvedere Plantation    | 65    |     |       |     |     |        | 65    | 3     |     |       |     |     |     |     |           | 3          | 68        |              |              |
| Bent Creek              | 690   | 2   |       |     |     | 1      | 693   | 1     |     |       | 4   | 3   |     |     |           | 8          | 701       |              |              |
| Brandywine Bay          | 306   |     |       |     |     |        | 306   |       |     |       |     |     |     |     |           | 0          | 306       |              |              |
| Carolina Pines          | 748   | 2   |       |     |     | 47     | 798   | 4     |     |       |     |     |     |     | 2         | 6          | 804       |              |              |
| Lampfight/Darby/Wald F  | 1,273 | 3   |       |     |     | 362    | 362   | 1     |     | 1     | 2   |     |     |     |           | 1          | 363       |              |              |
| Heston Park             | 177   | 4   |       |     |     | 8      | 1,284 | 326   |     | 1     | 10  |     |     |     |           | 329        | 1,513     |              |              |
| Hounds Ear              |       |     |       |     |     | 1      | 182   | 7     | 1   | 2     |     |     |     |     |           | 20         | 202       |              |              |
| Huntwick transferred    |       |     |       |     |     |        | -     |       |     |       |     |     |     |     |           | 0          | -         |              |              |
| Hamby Acres/Beacon Hill |       |     |       |     |     | 719    | 719   |       |     |       |     |     |     |     |           | 0          | 719       |              |              |
| Kings Grant - Charlotte |       |     |       |     |     |        | -     |       |     |       |     |     |     |     |           | 0          | -         |              |              |
| Kings Grant - Raleigh   |       |     |       |     |     | 116    | 116   |       |     |       |     |     |     |     |           | 0          | 116       |              |              |
| Kynwood                 |       |     |       |     |     |        | -     |       |     |       |     |     |     |     |           | 0          | -         |              |              |
| Nero                    | 125   |     |       |     |     |        | 125   |       |     |       |     |     |     |     |           | 0          | 125       |              |              |
| Older Point             | 120   | 3   |       |     |     |        | 123   |       |     |       | 1   |     |     |     |           | 1          | 124       |              |              |
| Queen's Harbor          | 114   |     |       |     |     |        | 114   | 1     |     |       |     |     | 1   |     |           | 2          | 116       |              |              |
| Ridges at Mt. Harbour   |       |     |       |     |     |        | -     | 1     |     |       | 1   |     |     |     | 39        | 41         | 41        |              |              |
| Riverchile              | 189   |     |       |     |     |        | 189   | 1     |     |       |     |     |     |     |           | 1          | 190       |              |              |
| Saddlewood              | 18    |     |       |     |     |        | 18    |       |     |       |     |     |     |     |           | 0          | 18        |              |              |
| Sugar Mountain          | 977   | 1   |       |     |     | 16     | 994   | 36    | 3   | 2     | 19  | 1   |     |     |           | 61         | 1,055     |              |              |
| Wolf Laurel             | 54    |     |       |     |     |        | 54    |       |     |       | 2   |     |     |     |           | 2          | 56        |              |              |
| Willowbrook             | 166   |     |       |     |     |        | 166   |       |     |       |     |     |     |     |           | 0          | 166       |              |              |
| Total                   | 6,775 | 15  | -     |     | 1   | 1,407  | 8,198 | 382   | 4   | 5     | 39  | 4   | 1   | -   | 41        | 476        | 8,674     | -            | -            |
| Multiple Dwelling Units |       |     |       |     |     | 169    | 169   |       |     |       |     |     |     |     |           | 0          | 169       |              |              |
| Styleeal Building       | 44    |     |       |     |     |        | 44    |       |     |       |     |     |     |     |           | 0          | 44        |              |              |
| Total Uniform Sewer     | 8,819 | 15  | -     |     | 1   | 1,576  | 8,411 | 382   | 4   | 5     | 39  | 4   | 1   | -   | 41        | 476        | 8,887     | -            | -            |

Carolina Water Service, Inc. of North Carolina  
 Docket No. W-354, Sub 356  
 For the 12 Months Ending December 31, 2016

Casselberry  
 Exhibit No. 6  
 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<br>Res. | 5/8 C      | 1 C       | 1.5 C     | 2 C       | 3 C      | 4 C      | 6 C      | Flat<br>Comm | Total<br>Comm | Total<br>EOP  | Availability<br>Connestee | Availability<br>Sapphire |
|-----------------------|---------------|------------|------------|-----------|----------|--------------|---------------|------------|-----------|-----------|-----------|----------|----------|----------|--------------|---------------|---------------|---------------------------|--------------------------|
| Regalwood             |               |            |            |           |          | 357          | 357           |            |           |           |           |          |          |          |              | 0             | 357           |                           |                          |
| White Oak Estates     |               |            |            |           |          | 688          | 688           |            |           |           |           |          |          |          |              | 0             | 688           |                           |                          |
| White oak High School |               |            |            |           |          | 1            | 1             |            |           |           |           |          |          |          |              | 0             | 1             |                           |                          |
| Child Daycare         |               |            |            |           |          | 1            | 1             |            |           |           |           |          |          |          |              | 0             | 1             |                           |                          |
|                       |               |            |            |           |          |              |               |            |           |           |           |          |          |          |              | 0             | -             |                           |                          |
| Carolina Trace        | 1540          | 1          |            | 2         |          |              | 1,543         | 15         | 2         | 1         | 1         |          |          |          |              | 19            | 1,562         |                           |                          |
| Connestee Falls       | 984           |            |            |           |          | 5            | 989           | 7          |           |           | 1         |          |          |          |              | 8             | 997           | 259                       |                          |
| Sapphire Valley       | 652           | 2          | 128        | 68        |          |              | 850           | 18         | 2         | 4         | 6         | 1        |          |          |              | 31            | 881           |                           | 89                       |
| Nags Head             |               |            |            |           |          | 657          | 657           | 11         | 7         | 4         | 7         |          |          | 2        |              | 31            | 688           |                           |                          |
| White Oak Plantation  | 417           |            |            |           |          |              | 417           |            |           |           |           |          |          |          |              | 0             | 417           |                           |                          |
| College Park          | 49            |            |            |           |          | 1            | 50            |            |           |           |           |          |          |          |              | 0             | 50            |                           |                          |
| Kings Grant Charlotte | 177           | 1          |            |           |          |              | 178           |            |           |           |           |          |          |          |              | 0             | 178           |                           |                          |
| Mt Carmel             | 387           |            |            |           |          |              | 387           |            |           |           |           |          |          |          |              | 0             | 387           |                           |                          |
| Fairfield Mountain    | 398           | 12         |            |           |          |              | 410           |            |           |           |           |          |          |          |              | 0             | 410           |                           |                          |
| Elk River             | 1             | 1          |            |           |          |              | 2             | 102        | 21        | 2         |           |          |          |          |              | 125           | 127           |                           |                          |
| CLMS                  | 775           | 91         | 0          | 0         | 0        |              | 866           | 71         | 18        | 3         | 3         | 1        |          |          |              | 96            | 962           |                           |                          |
|                       |               |            |            |           |          |              |               |            |           |           |           |          |          |          |              |               |               |                           |                          |
| <b>Total</b>          | <b>12,199</b> | <b>123</b> | <b>128</b> | <b>71</b> | <b>-</b> | <b>3,286</b> | <b>15,807</b> | <b>606</b> | <b>54</b> | <b>19</b> | <b>57</b> | <b>6</b> | <b>1</b> | <b>2</b> | <b>41</b>    | <b>786</b>    | <b>16,593</b> | <b>259</b>                | <b>89</b>                |

Kings Grant - Charlotte was reclassified from uniform to purchased sewer

Kings Grant - Raleigh was added to uniform rates

Fairfield Mountain treatment for commercial customers : small 7, medium 11, large 3

| Service Area      | 5/8 R       | 1 R      | 1.5 R    | 2 R      | 3 R      | Bulk S     | Total<br>Res. | 5/8 C     | 1 C      | 1.5 C    | 2 C      | 3 C      | 4 C      | 6 C      | Apts.      | Total<br>Comm | Total<br>EOP | Availb<br>Harbour |
|-------------------|-------------|----------|----------|----------|----------|------------|---------------|-----------|----------|----------|----------|----------|----------|----------|------------|---------------|--------------|-------------------|
| Bradfield Farms   | 1044        | 2        |          |          |          | 156        | 1,202         |           |          |          |          |          |          |          | 379        | 379           | 3162         |                   |
| Fairfield Harbour | 1829        | 1        |          |          |          |            | 1,830         | 13        |          | 2        | 1        |          |          |          |            | 16            | 1,846        | 876               |
| <b>Total</b>      | <b>2873</b> | <b>3</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>156</b> | <b>3,032</b>  | <b>13</b> | <b>0</b> | <b>2</b> | <b>1</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>379</b> | <b>395</b>    | <b>3,427</b> | <b>876</b>        |

Billing Analysis for End of Period Customers Consolidated at Proposed Rates

CWSNCS 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 | Supplies |
|-------------------------|-------|-----|-------|-----|-----|--------|------------|-------|-----|-------|-----|-----|-----|-----|-----------|------------|-----------|--------------|----------|
| Abington/Kynwood        | 596   |     |       |     |     | 110    | 706        | 1     |     |       |     |     |     |     |           | 1          | 707       |              |          |
| Ashley Hills            | 1,157 |     |       |     |     | 27     | 1,184      |       |     |       |     |     |     |     |           | 0          | 1,184     |              |          |
| Bear Paw                | 65    |     |       |     |     |        | 65         | 3     |     |       |     |     |     |     |           | 3          | 68        |              |          |
| Belvedere Plantation    | 690   | 2   |       |     |     | 1      | 693        | 1     |     |       | 4   | 3   |     |     |           | 8          | 701       |              |          |
| Bent Creek              | 306   |     |       |     |     |        | 306        |       |     |       |     |     |     |     |           | 0          | 306       |              |          |
| Brandywine Bay          | 748   | 2   |       | 1   |     | 47     | 798        | 4     |     |       |     |     |     |     |           | 2          | 804       |              |          |
| Carolina Pines          |       |     |       |     |     | 362    | 362        | 1     |     |       |     |     |     |     |           | 1          | 363       |              |          |
| Lamplight/Danby/Wed F   | 1,273 | 3   |       |     |     | 8      | 1,284      | 326   |     | 1     | 2   |     |     |     |           | 329        | 1,613     |              |          |
| Heston Park             | 177   | 4   |       |     |     | 1      | 182        | 7     | 1   | 2     | 10  |     |     |     |           | 20         | 202       |              |          |
| Hounds Ear              |       |     |       |     |     |        |            |       |     |       |     |     |     |     |           | 0          |           |              |          |
| Huntwick transferred    |       |     |       |     |     |        |            |       |     |       |     |     |     |     |           | 0          |           |              |          |
| Hamby Acres/Bacon Hill  |       |     |       |     |     | 719    | 719        |       |     |       |     |     |     |     |           | 0          | 719       |              |          |
| Kings Grant - Charlotte |       |     |       |     |     |        |            |       |     |       |     |     |     |     |           | 0          |           |              |          |
| Kings Grant - Raleigh   |       |     |       |     |     | 116    | 116        |       |     |       |     |     |     |     |           | 0          | 116       |              |          |
| Kynwood                 |       |     |       |     |     |        |            |       |     |       |     |     |     |     |           | 0          |           |              |          |
| Nero                    | 125   |     |       |     |     |        | 125        |       |     |       |     |     |     |     |           | 0          | 125       |              |          |
| Old Point               | 120   | 3   |       |     |     |        | 123        |       |     |       | 1   |     |     |     |           | 1          | 124       |              |          |
| Queen's Harbor          | 114   |     |       |     |     |        | 114        | 1     |     |       |     |     | 1   |     |           | 2          | 116       |              |          |
| Ridges at Mt. Harbour   |       |     |       |     |     |        |            | 1     |     |       | 1   |     |     |     |           | 41         | 41        |              |          |
| Riverchile              | 189   |     |       |     |     |        | 189        | 1     |     |       |     |     |     |     |           | 1          | 190       |              |          |
| Saddlewood              | 18    |     |       |     |     |        | 18         |       |     |       |     |     |     |     |           | 0          | 18        |              |          |
| Sugar Mountain          | 977   | 1   |       |     |     | 16     | 994        | 36    | 3   | 2     | 19  | 1   |     |     |           | 61         | 1,055     |              |          |
| Wolf Laurel             | 54    |     |       |     |     |        | 54         |       |     |       | 2   |     |     |     |           | 2          | 56        |              |          |
| Willowbrook             | 166   |     |       |     |     |        | 166        |       |     |       |     |     |     |     |           | 0          | 166       |              |          |
| Multiple Dwelling Units |       |     |       |     |     | 169    | 169        |       |     |       |     |     |     |     |           | 0          | 169       |              |          |
| StyleLeaf Building      | 44    |     |       |     |     |        | 44         |       |     |       |     |     |     |     |           | 0          | 44        |              |          |
| Uniform                 | 8,819 | 15  | -     |     | 1   | 1,576  | 8,411      | 382   | 4   | 5     | 39  | 4   | 1   | -   | 41        | 476        | 8,887     | -            | -        |
| Carolina Trace          | 1,540 | 1   |       |     | 2   |        | 1,543      | 15    | 2   | 1     | 1   |     |     |     |           | 19         | 1,562     |              |          |
| Comestee Falls          | 984   |     |       |     |     | 5      | 989        | 7     |     |       | 1   |     |     |     |           | 8          | 997       | 259          |          |

--I

Carolina Water Service, Inc. of North Carolina  
Docket No. W-354, Sub 356  
For the 12 Months Ending December 31, 2016

Casselberry  
Exhibit No. 7  
Page 2 of 2

Billing Analysis for End of Period Customers Consolidated at Proposed 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 Connetsee | Availability Sapphire |
|-----------------------|--------|-----|-------|-----|-----|--------|------------|-------|-----|-------|-----|-----|-----|-----|-----------|------------|-----------|------------------------|-----------------------|
| Sapphire Valley       |        |     |       |     |     | 850    | 850        | 18    | 2   | 4     | 6   | 1   |     |     |           | 31         | 881       |                        | 89                    |
| Nags Head             |        |     |       |     |     | 657    | 657        | 11    | 7   | 4     | 7   |     |     | 2   |           | 31         | 688       |                        |                       |
| Total Uniform Sewer   | 9,343  | 16  | -     | 3   | -   | 3,088  | 12,450     | 433   | 15  | 14    | 54  | 5   | 1   | 2   | 41        | 565        | 13,015    | 259                    | 89                    |
| Regalwood             |        |     |       |     |     | 357    | 357        |       |     |       |     |     |     |     |           | 0          | 357       |                        |                       |
| White Oak Estates     |        |     |       |     |     | 688    | 688        |       |     |       |     |     |     |     |           | 0          | 688       |                        |                       |
| White oak High School |        |     |       |     |     | 1      | 1          |       |     |       |     |     |     |     |           | 0          | 1         |                        |                       |
| Child Daycare         |        |     |       |     |     | 1      | 1          |       |     |       |     |     |     |     |           | 0          | 1         |                        |                       |
| White Oak Plantation  | 417    |     |       |     |     |        | 417        |       |     |       |     |     |     |     |           | 0          | 417       |                        |                       |
| College Park          | 49     |     |       |     |     | 1      | 50         |       |     |       |     |     |     |     |           | 0          | 50        |                        |                       |
| Kings Grant Charlotte | 177    | 1   |       |     |     |        | 178        |       |     |       |     |     |     |     |           | 0          | 178       |                        |                       |
| Mt Carmel             | 387    |     |       |     |     |        | 387        |       |     |       |     |     |     |     |           | 0          | 387       |                        |                       |
| Fairfield Mountain    | 398    | 12  |       |     |     |        | 410        |       |     |       |     |     |     |     |           | 0          | 410       |                        |                       |
| Elk River             | 1      | 1   |       |     |     |        | 2          | 102   | 21  | 2     |     |     |     |     |           | 125        | 127       |                        |                       |
| CLMS                  | 775    | 91  | 0     | 0   | 0   |        | 866        | 71    | 18  | 3     | 3   | 1   |     |     |           | 96         | 962       |                        |                       |
|                       |        |     |       |     |     |        | -          |       |     |       |     |     |     |     |           | 0          | -         |                        |                       |
| Total                 | 11,547 | 121 | -     | 3   | -   | 4,136  | 15,807     | 606   | 54  | 19    | 57  | 6   | 1   | 2   | 41        | 786        | 16,593    | 259                    | 89                    |

Kings Grant - Charlotte was reclassified from uniform to purchased sewer

Kings Grant - Raleigh was added to uniform rates

Fairfield Mountain treatment for commercial customers: small 7, medium 11, large 3

CWSNC Sewer

| Service Area      | 5/8 R | 1 R | 1.5 R | 2 R | 3 R | Bulk \$ | Total Res. | 5/8 C | 1 C | 1.5 C | 2 C | 3 C | 4 C | 6 C | Flat Apts. | Total Comm | Total EOP | Availability Harbour | Availability |
|-------------------|-------|-----|-------|-----|-----|---------|------------|-------|-----|-------|-----|-----|-----|-----|------------|------------|-----------|----------------------|--------------|
| Bradfield Farms   | 1,044 | 2   |       |     |     | 156     |            |       |     |       |     |     |     |     | 379        |            | 1581      |                      |              |
| Fairfield Harbour | 1,829 | 1   |       |     |     |         | 1,830      | 13    |     | 2     | 1   |     |     |     |            | 16         | 1,846     | 876                  |              |
| Total             | 2,873 | 3   | 0     | 0   | 0   | 156     | 3,032      | 13    | 0   | 2     | 1   | 0   | 0   | 0   | 379        | 395        | 3,427     | 876                  |              |

Carolina Water Service, Inc. of North Carolina  
Docket No. W-354, Sub 355  
For the 12 Months Ending December 31, 2016

Casesberry  
Exhibit No. 8  
Page 1 of 1

CMSNC Water

Consumption Consolidated for End of Period Customers at Proposed Rates

| Service Area                | 5/8 R       | 3/4 R     | 1 R       | 1.5 R     | 2 R       | Total Res.  | 5/8 C      | 1 C       | 1.5 C     | 2 C        | 3 C        | 4 C     | 6 C       | Contn.     | Total         |
|-----------------------------|-------------|-----------|-----------|-----------|-----------|-------------|------------|-----------|-----------|------------|------------|---------|-----------|------------|---------------|
| Uniform Rates               | 747,738,222 | 958,990   | 1,443,390 | 319,200   | 42,700    | 750,502,492 | 9,678,459  | 5,114,672 | 5,320,605 | 19,749,454 | 9,958,970  | 778,870 | 2,112,670 | 52,749,809 | 603,252,292   |
| Cleaveland                  | 101,289,220 |           |           |           |           | 101,289,220 | 5,398      |           |           |            |            |         |           | 5,398      | 101,294,610   |
| Treasure Cove               | 18,691,303  |           | 138,140   |           | 131,300   | 18,950,743  |            |           |           |            |            |         |           | -          | 18,950,743    |
| Forest Hills                | 5,650,885   |           |           |           |           | 5,650,885   | 112,510    | 748,500   | 1,186,240 |            |            |         |           | 2,047,250  | 7,698,135     |
| Comstock Falls              | 36,125,003  |           |           |           |           | 36,125,003  | 335,000    |           |           | 1,121,954  |            |         |           | 1,456,954  | 37,581,957    |
| Fairfield Esophine Valley   | 39,183,560  | 48,002    | 283,940   | 5,583,382 | 2,844,594 | 47,923,478  | 1,945,268  | 689,846   | 2,147,142 | 1,160,730  | 1,484,827  |         |           | 7,427,811  | 55,551,289    |
| Fairfield Middleboro Valley | 27,593,859  | 477,390   | 1,847,310 |           |           | 29,823,559  | 2,432,210  | 1,138,670 | 895,520   | 972,730    |            |         |           | 5,499,130  | 35,382,729    |
| Total Uniform               | 978,247,182 | 1,484,382 | 3,712,770 | 5,802,582 | 3,018,594 | 990,365,520 | 14,508,835 | 7,691,888 | 9,549,507 | 23,004,868 | 11,483,797 | 778,870 | 2,112,670 | 69,128,335 | 1,059,491,855 |
| Elk River                   | 2,945       | 6,429,220 | 1,086,399 |           |           | 6,438,574   | 384,409    | 128,140   |           |            | 377,184    |         |           | 899,713    | 7,298,287     |
| Bradfield Farms             | 61,620,657  | 6,888,789 | 1,032,891 |           |           | 69,552,347  |            |           |           |            |            |         |           | -          | 69,552,347    |
| Fairfield Harbor            | 78,353,576  | 36,080    | 100,450   |           |           | 78,493,106  | 1,343,824  | 37,050    | 483,700   | 713,200    |            |         |           | 2,587,774  | 82,080,880    |
| Total                       | 140,974,233 | 6,924,878 | 1,138,341 | -         | -         | 149,045,453 | 1,343,824  | 37,050    | 483,700   | 713,200    | -          | -       | -         | 2,587,774  | 151,633,227   |

--/I

Carolina Water Service, Inc. of North Carolina  
Docket No. W-354, Sub 356  
For the 12 Months Ending December 31, 2016

Casselberry  
Exhibit No. 9  
Page 1 of 1

Consumption Consolidated for End of Period Customers at Proposed Rates

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 |
|-----------------------|-------------|------------|--------|--------|-------------------|------------|-----------|-----------|------------|------------|---------|-----------|------------------|-------------|
| Uniform Sewer         | 293,436,504 | 702,202    |        | 42,700 | 294,181,406       | 23,559,317 | 283,780   | 2,537,200 | 13,518,150 | 9,047,670  | 776,970 |           | 49,723,087       | 343,904,493 |
| Carolina Trace        | 56,774,289  | 57,320     | 29,800 |        | 56,861,409        | 799,910    | 157,220   | 500,700   | 89,900     |            |         |           | 1,547,730        | 58,409,139  |
| Conestee Falls        | 26,314,000  |            |        |        | 26,314,000        | 147,000    | 869,000   |           |            |            |         |           | 1,016,000        | 27,330,000  |
| Sapphire Valley       |             |            |        |        | -                 | 1,322,216  | 689,846   | 1,174,149 | 974,892    | 1,484,827  |         |           | 5,645,930        | 5,645,930   |
| Nags Head             |             |            |        |        | -                 | 1,690,810  | 4,448,850 | 1,661,830 | 5,242,500  |            |         | 3,792,952 | 16,836,942       | 18,836,942  |
| Total                 | 376,524,793 | 759,522    | 29,800 | 42,700 | 377,356,815       | 27,519,253 | 6,448,696 | 5,873,879 | 19,825,442 | 10,532,497 | 776,970 | 3,792,952 | 74,769,889       | 452,126,504 |
| CLMS                  | 41,519,782  | 9,651,480  |        |        | 51,171,262        | 6,522,778  | 3,035,120 | 1,258,800 | 1,935,400  | 126,000    |         |           | 12,878,098       | 64,049,360  |
| Mt Carmel             | 16,060,320  |            |        |        | 16,060,320        |            |           |           |            |            |         |           | -                | 16,060,320  |
| College Park          | 2,355,400   |            |        |        | 2,355,400         |            |           |           |            |            |         |           | -                | 2,355,400   |
| Kings Grant Charlotte | 7,969,580   | 284,918    |        |        | 8,254,498         |            |           |           |            |            |         |           | -                | 8,254,498   |
| Whit Oak Plantation   | 20,139,604  |            |        |        | 20,139,604        |            |           |           |            |            |         |           | -                | 20,139,604  |
| Elk River             | 11,563      |            |        |        | 11,563            | 1,373,541  | 240,599   |           | 238,005    |            |         |           | 1,852,145        | 1,863,708   |
| Total                 | 464,581,042 | 10,695,920 | 29,800 | 42,700 | 475,349,462       | 35,415,572 | 9,724,415 | 7,132,679 | 21,998,847 | 10,658,497 | 776,970 | 3,792,952 | 69,499,932       | 564,849,394 |
| Fairfield Mountain    |             |            |        |        |                   |            |           |           |            |            |         |           | small            | 1,297,790   |
| Fairfield Mountain    |             |            |        |        |                   |            |           |           |            |            |         |           | medium           | 2,230,760   |
| Fairfield Mountain    |             |            |        |        |                   |            |           |           |            |            |         |           | large            | 405,620     |
| Total                 |             |            |        |        |                   |            |           |           |            |            |         |           |                  | 568,783,564 |

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 |
|-------------------|-------------|-----------|------|-----|-------------------|-----------|-----|---------|---------|-----|-----|----|------------------|-------------|
| Bradfield Farms   | 74,600,123  | 3,802,389 |      |     | 78,402,512        |           |     |         |         |     |     |    | -                | 78,402,512  |
| Fairfield Harbour | 78,859,319  | 12,620    |      |     | 78,871,939        | 1,102,710 |     | 493,700 | 528,800 |     |     |    | 2,125,210        | 80,997,149  |
|                   | 153,459,442 | 3,815,009 | -    | -   | 157,274,451       | 1,102,710 | -   | 493,700 | 528,800 | -   | -   | -  | 2,125,210        | 159,399,661 |

OFFICIAL COPY

Sep 19 2017

--/I

Carolina Water Service, Inc. of North Carolina  
Docket No. W-354, Sub 356  
For the 12 Months Ending December 31, 2016

Casselberry  
Exhibit No. 10  
Page 1 of 8

Public Staff's Revenue at Present Rates

CWSNC Water

| Billing<br>Type   | Usage       | Usage<br>Rate | Usage<br>Revenue | EOP<br>Customers | EOP<br>x 12 months | Base<br>Charge | Base Charge<br>Revenue | Total<br>Revenue |
|---|-------------|---------------|------------------|------------------|--------------------|----------------|------------------------|------------------|
| Flat Residential  | -           |               | -                | 416              | 4,992              | 41.60          | 207,667                | 207,667          |
| 5/8" Residential Metered  | 747,738,222 | 6.40          | 4,785,525        | 14,189           | 170,268            | 22.40          | 3,814,003              | 8,599,528        |
| 3/4" Residential Metered  | 958,990     | 6.40          | 6,138            | 20               | 240                | 22.40          | 5,376                  | 11,514           |
| 1" Residential Metered  | 1,443,380   | 6.40          | 9,238            | 24               | 288                | 56.01          | 16,131                 | 25,369           |
| 1.5" Residential Metered  | 319,200     | 6.40          | 2,043            | 2                | 24                 | 112.02         | 2,688                  | 4,731            |
| 2" Residential Metered  | 42,700      | 6.40          | 273              | 1                | 12                 | 179.23         | 2,151                  | 2,424            |
| Total Residential Metered   | 750,502,492 |               | 4,803,216        | 14,236           | 170,832            |                | 3,840,349              | 8,643,565        |
| Added 694,871 gallons to 5/8" residential metered usage for SkyLeaf |             |               |                  |                  |                    |                |                        |                  |
| 5/8" Commercial Metered   | 9,676,459   | 6.40          | 61,929           | 146              | 1,752              | 22.40          | 39,245                 | 101,174          |
| 1" Commercial Metered   | 5,114,672   | 6.40          | 32,734           | 37               | 444                | 56.10          | 24,908                 | 57,642           |
| 1.5" Commercial Metered   | 5,320,605   | 6.40          | 34,052           | 13               | 156                | 112.02         | 17,475                 | 51,527           |
| 2" Commercial Metered   | 19,749,454  | 6.40          | 126,397          | 61               | 732                | 179.23         | 131,196                | 257,593          |
| 3" Commercial Metered   | 9,998,970   | 6.40          | 63,993           | 6                | 72                 | 336.06         | 24,196                 | 88,190           |
| 4" Commercial Metered   | 776,970     | 6.40          | 4,973            | 1                | 12                 | 560.10         | 6,721                  | 11,694           |
| 6" Commercial Metered   | 2,112,670   | 6.40          | 13,521           | 2                | 24                 | 1,120.19       | 26,885                 | 40,406           |
| Total Commercial Metered  | 52,749,800  |               | 337,599          | 266              | 3,192              |                | 270,627                | 608,225          |
| Total   |             |               |                  |                  |                    |                |                        | 9,459,458        |
| Purchased Water   |             |               |                  |                  |                    |                |                        |                  |
| Carolina Forest   |             |               |                  |                  |                    |                |                        |                  |
| 5/8" Residential Metered  | 5,727,411   | 3.19          | 18,270           | 197              | 2,364              | 22.40          | 52,954                 | 71,224           |
| 1" Residential Metered  | 84,710      | 3.19          | 270              | 1                | 12                 | 56.01          | 672                    | 942              |
| 5/8" Commercial Metered   | 29,462      | 3.19          | 94               | 4                | 48                 | 22.40          | 1,075                  | 1,169            |

Carolina Water Service, Inc. of North Carolina  
Docket No. W-354, Sub 356  
For the 12 Months Ending December 31, 2016

Casselberry  
Exhibit No. 10  
Page 2 of 8

## Public Staff's Revenue at Present Rates

## CWSNC Water

| Billing<br>Type         | Usage            | Usage<br>Rate | Usage<br>Revenue | EOP<br>Customers | EOP<br>x 12 months | Base<br>Charge | Base Charge<br>Revenue | Total<br>Revenue |
|-------------------------|------------------|---------------|------------------|------------------|--------------------|----------------|------------------------|------------------|
| 1" Commercial Metered   | 161,610          | 3.19          | 516              | 1                | 12                 | 56.01          | 672                    | 1,188            |
| 1.5" Commercial Metered | 67,123           | 3.19          | 214              | 1                | 12                 | 112.02         | 1,344                  | 1,558            |
| <b>Total</b>            | <b>6,070,316</b> |               | <b>19,364</b>    | <b>204</b>       | <b>2,448</b>       |                | <b>56,717</b>          | <b>76,082</b>    |

## High Vista Estates

|                          |                   |      |               |            |              |        |               |                |
|--------------------------|-------------------|------|---------------|------------|--------------|--------|---------------|----------------|
| 5/8" Residential Metered | 10,550,670        | 3.25 | 34,290        | 234        | 2,808        | 22.40  | 62,899        | 97,189         |
| 1" Residential Metered   | 61,500            | 3.25 | 200           | 1          | 12           | 56.01  | 672           | 872            |
| 5/8" Commercial Metered  | 11,000            | 3.25 | 36            | 1          | 12           | 22.40  | 269           | 305            |
| 2" Commercial Metered    | 926,700           | 3.25 | 3,012         | 2          | 24           | 179.23 | 4,302         | 7,313          |
| <b>Total</b>             | <b>11,549,870</b> |      | <b>37,537</b> | <b>238</b> | <b>2,856</b> |        | <b>68,142</b> | <b>105,679</b> |

## Riverpointe

|                          |                   |      |                |            |              |       |               |                |
|--------------------------|-------------------|------|----------------|------------|--------------|-------|---------------|----------------|
| 5/8" Residential Metered | 15,752,797        | 6.30 | 99,243         | 190        | 2,280        | 22.40 | 51,072        | 150,315        |
| 5/8" Commercial Metered  | 727,260           | 6.30 | 4,582          | 5          | 60           | 22.40 | 1,344         | 5,926          |
| <b>Total</b>             | <b>16,480,057</b> |      | <b>103,824</b> | <b>195</b> | <b>2,340</b> |       | <b>52,416</b> | <b>156,240</b> |

## Whispering Pines

|                          |            |      |         |       |        |        |         |         |
|--------------------------|------------|------|---------|-------|--------|--------|---------|---------|
| 5/8" Residential Metered | 85,279,733 | 2.23 | 190,174 | 1,519 | 18,228 | 22.40  | 408,307 | 598,481 |
| 1" Residential Metered   | 1,208,810  | 2.23 | 2,696   | 15    | 180    | 56.01  | 10,082  | 12,777  |
| 5/8" Commercial Metered  | 993,770    | 2.23 | 2,216   | 28    | 336    | 22.40  | 7,526   | 9,743   |
| 1" Commercial Metered    | 2,181,248  | 2.23 | 4,864   | 5     | 60     | 56.01  | 3,361   | 8,225   |
| 1.5" Commercial Metered  | 621,389    | 2.23 | 1,386   | 5     | 60     | 112.02 | 6,721   | 8,107   |



Carolina Water Service, Inc. of North Carolina  
Docket No. W-354, Sub 356  
For the 12 Months Ending December 31, 2016

Casselberry  
Exhibit No. 10  
Page 3 of 8

Public Staff's Revenue at Present Rates

CWSNC Water

| Billing<br>Type       | Usage             | Usage<br>Rate | Usage<br>Revenue | EOP<br>Customers | EOP<br>x 12 months | Base<br>Charge | Base Charge<br>Revenue | Total<br>Revenue |
|-----------------------|-------------------|---------------|------------------|------------------|--------------------|----------------|------------------------|------------------|
| 2" Commercial Metered | 419,900           | 2.23          | 936              | 1                | 12                 | 179.23         | 2,151                  | 3,087            |
| 4" Commercial Metered | 500               | 2.23          | 1                | 1                | 12                 | 560.10         | 6,721                  | 6,722            |
| <b>Total</b>          | <b>90,705,350</b> |               | <b>202,273</b>   | <b>1,574</b>     | <b>18,888</b>      |                | <b>444,869</b>         | <b>647,142</b>   |

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

|                          |                   |      |               |            |              |        |                |                |
|--------------------------|-------------------|------|---------------|------------|--------------|--------|----------------|----------------|
| 5/8" Residential Metered | 25,363,484        | 3.25 | 82,431        | 507        | 6,084        | 22.40  | 136,282        | 218,713        |
| 1.5" Commercial Metered  | 184,500           | 3.25 | 600           | 1          | 12           | 112.02 | 1,344          | 1,944          |
| <b>Total</b>             | <b>25,547,984</b> |      | <b>83,031</b> | <b>508</b> | <b>6,096</b> |        | <b>137,626</b> | <b>220,657</b> |

Woodrun

|                          |                   |      |               |            |              |       |                |                |
|--------------------------|-------------------|------|---------------|------------|--------------|-------|----------------|----------------|
| 5/8" Residential Metered | 17,048,700        | 3.19 | 54,385        | 463        | 5,556        | 22.40 | 124,454        | 178,840        |
| 5/8" Commercial Metered  | 122,120           | 3.19 | 390           | 4          | 48           | 22.40 | 1,075          | 1,465          |
| 1" Commercial Metered    | 388,136           | 3.19 | 1,238         | 1          | 12           | 56.01 | 672            | 1,910          |
| <b>Total</b>             | <b>17,558,956</b> |      | <b>56,013</b> | <b>468</b> | <b>5,616</b> |       | <b>126,202</b> | <b>182,215</b> |

Yorktown

|                          |           |      |        |     |       |       |        |        |
|--------------------------|-----------|------|--------|-----|-------|-------|--------|--------|
| 5/8" Residential Metered | 3,755,800 | 5.01 | 18,817 | 107 | 1,284 | 22.40 | 28,762 | 47,578 |
|--------------------------|-----------|------|--------|-----|-------|-------|--------|--------|

Zemosa Acres

|                          |            |      |        |     |       |       |        |         |
|--------------------------|------------|------|--------|-----|-------|-------|--------|---------|
| 5/8" Residential Metered | 12,124,948 | 5.27 | 63,898 | 239 | 2,868 | 22.40 | 64,243 | 128,142 |
| 1" Residential Metered   | 66,819     | 5.27 | 352    | 2   | 24    | 56.01 | 1,344  | 1,696   |

OFFICIAL COPY

Sep 19 2017

Carolina Water Service, Inc. of North Carolina  
Docket No. W-354, Sub 356  
For the 12 Months Ending December 31, 2017

Casselberry  
Exhibit No. 10  
Page 4 of 8

Public Staff's Revenue at Present Rates

CWSNC Water

| Billing<br>Type       | Usage             | Usage<br>Rate | Usage<br>Revenue | EOP<br>Customers | EOP<br>x 12 months | Base<br>Charge | Base Charge<br>Revenue | Total<br>Revenue |
|-----------------------|-------------------|---------------|------------------|------------------|--------------------|----------------|------------------------|------------------|
| 1" Commercial Metered | 90,807            | 5.27          | 479              | 1                | 12                 | 56.01          | 672                    | 1,151            |
| <b>Total</b>          | <b>12,282,574</b> |               | <b>64,729</b>    | <b>242</b>       | <b>2,904</b>       |                | <b>66,260</b>          | <b>130,989</b>   |

Clearwater Systems

| Billing<br>Type          | Usage              | Usage<br>Rate | Usage<br>Revenue | EOP<br>Customers | EOP<br>x 12 months | Base<br>Charge | Base Charge<br>Revenue | Total<br>Revenue |
|--------------------------|--------------------|---------------|------------------|------------------|--------------------|----------------|------------------------|------------------|
| Residential Flat         | -                  | -             | -                | 99               | 1,188              | 37.18          | 44,170                 | 44,170           |
| 5/8" Residential Metered | 101,289,220        | 4.50          | 455,801          | 1,953            | 23,436             | 16.27          | 381,304                | 837,105          |
| 5/8" Commercial Metered  | 5,390              | 4.50          | 24               | 4                | 48                 | 16.27          | 781                    | 805              |
| <b>Total</b>             | <b>101,294,610</b> |               | <b>455,826</b>   | <b>2,056</b>     | <b>24,672</b>      |                | <b>426,255</b>         | <b>882,080</b>   |

Treasure Cove

| Billing<br>Type          | Usage             | Usage<br>Rate | Usage<br>Revenue | EOP<br>Customers | EOP<br>x 12 months | Base<br>Charge | Base Charge<br>Revenue | Total<br>Revenue |
|--------------------------|-------------------|---------------|------------------|------------------|--------------------|----------------|------------------------|------------------|
| 5/8" Residential Metered | 18,681,303        | 1.90          | 35,494           | 284              | 3,408              | 14.50          | 49,416                 | 84,910           |
| 1" Residential Metered   | 138,140           | 1.90          | 262              | 1                | 12                 | 14.50          | 174                    | 436              |
| 2" Residential Metered   | 131,300           | 1.90          | 249              | 1                | 12                 | 14.50          | 174                    | 423              |
| <b>Total</b>             | <b>18,950,743</b> |               | <b>36,006</b>    | <b>286</b>       | <b>3,432</b>       |                | <b>49,764</b>          | <b>85,770</b>    |

Carolina Water Service, Inc. of North Carolina  
Docket No. W-354, Sub 356  
For the 12 Months Ending December 31, 2017

Casselberry  
Exhibit No. 10  
Page 5 of 8

Public Staff's Revenue at Present Rates

Forest Hill Subdivision

| Billing<br>Type          | Usage     | Usage<br>Rate | Usage<br>Revenue | EOP<br>Customers | EOP<br>x 12 months | Base<br>Charge | Base Charge<br>Revenue | Total<br>Revenue |
|--------------------------|-----------|---------------|------------------|------------------|--------------------|----------------|------------------------|------------------|
| 5/8" Residential Metered | 5,650,985 | 5.23          | 29,555           | 119              | 1,428              | 22.43          | 32,030                 | 61,585           |
| 5/8" Commercial Metered  | 112,510   | 5.23          | 588              | 1                | 12                 | 22.43          | 269                    | 858              |
| 1" Commercial Metered    | 748,500   | 5.23          | 3,915            | 2                | 24                 | 56.08          | 1,346                  | 5,261            |
| 1.5" Commercial Metered  | 1,186,240 | 5.23          | 6,204            | 3                | 36                 | 112.16         | 4,038                  | 10,242           |
| Total Commercial Metered | 2,047,250 |               | 10,707           | 6                | 72                 |                | 5,653                  | 16,360           |
| Total                    | 7,698,235 |               | 40,262           | 125              | 1,500              |                | 37,683                 | 77,945           |

Carolina Trace

| Billing<br>Type           | Usage      | Usage<br>Rate | Usage<br>Revenue | EOP<br>Customers | EOP<br>x 12 months | Base<br>Charge | Base Charge<br>Revenue | Total<br>Revenue |
|---------------------------|------------|---------------|------------------|------------------|--------------------|----------------|------------------------|------------------|
| 5/8" Residential Metered  | 58,012,009 | 5.06          | 293,541          | 1,573            | 18,876             | 14.05          | 265,208                | 558,749          |
| 1" Residential Metered    | 57,320     | 5.06          | 290              | 1                | 12                 | 14.05          | 169                    | 459              |
| 2" Residential Metered    | 29,800     | 5.06          | 151              | 2                | 24                 | 14.05          | 337                    | 488              |
| Total Residential Metered | 58,099,129 |               | 293,982          | 1,576            | 18,912             |                | 265,714                | 559,695          |
| 5/8" Commercial Metered   | 1,096,820  | 5.06          | 5,550            | 24               | 288                | 14.05          | 4,046                  | 9,596            |
| 1" Commercial Metered     | 157,220    | 5.06          | 796              | 2                | 24                 | 14.05          | 337                    | 1,133            |
| 1.5" Commercial Metered   | 500,700    | 5.06          | 2,534            | 1                | 12                 | 14.05          | 169                    | 2,702            |
| 2" Commercial Metered     | 2,710,830  | 5.06          | 13,717           | 3                | 36                 | 14.05          | 506                    | 14,223           |
| Total Commercial Metered  | 4,465,570  |               | 22,596           | 30               | 360                |                | 5,058                  | 27,654           |
| Total                     | 62,564,699 |               | 316,577          | 1,606            | 19,272             |                | 270,772                | 587,349          |

Carolina Water Service, Inc. of North Carolina  
Docket No. W-354, Sub 356  
For the 12 Months Ending December 31, 2017

Casselberry  
Exhibit No. 10  
Page 6 of 8

## Public Staff's Revenue at Present Rates

## Connetsee Falls

| Billing<br>Type          | Usage      | Usage<br>Rate | Usage<br>Revenue | EOP<br>Customers | EOP<br>x 12 months | Base<br>Charge | Base Charge<br>Revenue | Total<br>Revenue |
|--------------------------|------------|---------------|------------------|------------------|--------------------|----------------|------------------------|------------------|
| 5/8" Residential Metered | 36,125,003 | 6.65          | 240,231          | 1,356            | 16,272             | 27.41          | 446,015.52             | 686,247          |
| 5/8" Commercial Metered  | 335,000    | 6.65          | 2,227.75         | 16               | 192                | 27.41          | 5,262.72               | 7,490            |
| 2" Commercial Metered    | 1,121,954  | 6.65          | 7,460.99         | 3                | 36                 | 219.22         | 7,891.92               | 15,353           |
| Total Commercial Metered | 1,456,954  |               | 9,689            | 19               | 228                |                | 13,155                 | 22,843           |
| Total                    | 37,581,957 |               | 249,920          | 1,375            | 16,500             |                | 459,170                | 709,090          |

## Sapphire Valley

| Billing<br>Type           | Usage      | Usage<br>Rate | Usage<br>Revenue | EOP<br>Customers | EOP<br>x 12 months | Base<br>Charge | Base Charge<br>Revenue | Total<br>Revenue |
|---------------------------|------------|---------------|------------------|------------------|--------------------|----------------|------------------------|------------------|
| 5/8" Residential Metered  | 39,163,560 | 9.17          | 359,130          | 1,533            | 18,396             | 19.89          | 365,896                | 725,026          |
| 3/4" Residential Metered  | 48,002     | 9.17          | 440              | 4                | 48                 | 19.89          | 955                    | 1,395            |
| 1" Residential Metered    | 283,940    | 9.17          | 2,604            | 5                | 60                 | 19.89          | 1,193                  | 3,797            |
| 1.5" Residential Metered  | 5,583,382  | 9.17          | 51,200           | 32               | 384                | 19.89          | 7,638                  | 58,837           |
| 2" Residential Metered    | 2,844,594  | 9.17          | 26,085           | 17               | 204                | 19.89          | 4,058                  | 30,142           |
| Total Residential Metered | 47,923,478 |               | 439,458          | 1,591            | 19,092             |                | 379,740                | 819,198          |
| 5/8" Commercial Metered   | 1,945,266  | 9.17          | 17,838           | 38               | 456                | 19.89          | 9,070                  | 26,908           |
| 1" Commercial Metered     | 689,846    | 9.17          | 6,326            | 2                | 24                 | 49.73          | 1,194                  | 7,519            |
| 1.5" Commercial Metered   | 2,147,142  | 9.17          | 19,689           | 7                | 84                 | 99.45          | 8,354                  | 28,043           |
| 2" Commercial Metered     | 1,160,730  | 9.17          | 10,644           | 8                | 96                 | 159.13         | 15,276                 | 25,920           |
| 3" Commercial Metered     | 1,484,827  | 9.17          | 13,616           | 1                | 12                 | 298.37         | 3,580                  | 17,196           |

Carolina Water Service, Inc. of North Carolina  
Docket No. W-354, Sub 356  
For the 12 Months Ending December 31, 2017

Casselberry  
Exhibit No. 10  
Page 7 of 8

Public Staff's Revenue at Present Rates

Sapphire Valley

| Billing<br>Type          | Usage      | Usage<br>Rate | Usage<br>Revenue | EOP<br>Customers | EOP<br>x 12 months | Base<br>Charge | Base Charge<br>Revenue | Total<br>Revenue |
|--------------------------|------------|---------------|------------------|------------------|--------------------|----------------|------------------------|------------------|
| Total Commercial Metered | 7,427,811  |               | 68,113           | 56               | 672                |                | 37,474                 | 105,587          |
| Total                    | 55,351,289 |               | 507,571          | 1,647            | 19,764             |                | 417,214                | 924,785          |

Fairfield Mountain

| Billing<br>Type           | Usage      | Usage<br>Rate | Usage<br>Revenue | EOP<br>Customers | EOP<br>x 12 months | Base<br>Charge | Base Charge<br>Revenue | Total<br>Revenue |
|---------------------------|------------|---------------|------------------|------------------|--------------------|----------------|------------------------|------------------|
| 5/8" Residential Metered  | 27,598,899 | 7.10          | 195,952          | 1,001            | 12,012             | 19.23          | 230,991                | 426,943          |
| 3/4" Residential Metered  | 477,390    | 7.10          | 3,389            | 17               | 204                | 19.23          | 3,923                  | 7,312            |
| 1" Residential Metered    | 1,847,310  | 7.10          | 13,116           | 12               | 144                | 19.23          | 2,769                  | 15,885           |
| Total Residential Metered | 29,923,599 |               | 212,458          | 1,030            | 12,360             |                | 237,683                | 450,140          |
| 5/8" Commercial Metered   | 2,432,210  | 7.10          | 17,269           | 46               | 552                | 19.23          | 10,615                 | 27,884           |
| 1" Commercial Metered     | 1,138,670  | 7.10          | 8,085            | 4                | 48                 | 48.07          | 2,307                  | 10,392           |
| 1.5" Commercial Metered   | 895,520    | 7.10          | 6,358            | 4                | 48                 | 96.14          | 4,615                  | 10,973           |
| 2" Commercial Metered     | 972,730    | 7.10          | 6,906            | 4                | 48                 | 153.83         | 7,384                  | 14,290           |
| Total Commercial Metered  | 5,439,130  |               | 38,618           | 58               | 696                |                | 24,921                 | 63,539           |
| Total                     | 35,362,729 |               | 251,075          | 1,088            | 13,056             |                | 262,604                | 513,679          |

Carolina Water Service, Inc. of North Carolina  
Docket No. W-354, Sub 356  
For the 12 Months Ending December 31, 2017

Casselberry  
Exhibit No. 10  
Page 8 of 8

## Public Staff's Revenue at Present Rates

## Elk River

| Billing<br>Type                 | Usage       | Usage<br>Rate | Usage<br>Revenue | EOP<br>Customers | EOP<br>x 12 months | Base<br>Charge | Base Charge<br>Revenue | Total<br>Revenue |
|---------------------------------|-------------|---------------|------------------|------------------|--------------------|----------------|------------------------|------------------|
| 5/8" Residential Metered        | 2,945       | 4.29          | 13               | 2                | 24                 | 19.52          | 468                    | 481              |
| 3/4" Residential Metered        | 5,429,230   | 4.29          | 23,291           | 257              | 3,084              | 19.52          | 60,200                 | 83,491           |
| 1" Residential Metered          | 1,066,399   | 4.29          | 4,575            | 31               | 372                | 48.79          | 18,150                 | 22,725           |
| Total Residential Metered       | 6,498,574   |               | 27,879           | 290              | 3,480              |                | 78,818                 | 106,697          |
| 5/8" Commercial Metered         | 394,409     | 4.29          | 1,692            | 28               | 336                | 19.52          | 6,559                  | 8,251            |
| 1" Commercial Metered           | 128,140     | 4.29          | 550              | 1                | 12                 | 48.79          | 585                    | 1,135            |
| 2" Commercial Metered           | 337,164     | 4.29          | 1,446            | 4                | 48                 | 156.12         | 7,494                  | 8,940            |
| Total Commercial Metered        | 859,713     |               | 3,688            | 33               | 396                |                | 14,638                 | 18,326           |
| Total                           | 7,358,287   |               | 31,567           | 323              | 3,876              |                | 93,456                 | 125,023          |
| <b>Availability</b>             |             |               |                  |                  |                    |                |                        |                  |
| Linville Ridge (monthly)        | -           |               | -                | 63               | 756                | 12.32          | 9,314                  | 9,314            |
| Carolina Forest (semi annually) |             |               |                  | 734              | 1,468              | 24.64          | 36,172                 | 36,172           |
| Woodrun (semi annually)         |             |               |                  | 693              | 1,386              | 24.64          | 34,151                 | 34,151           |
| Sapphire Valley (monthly)       |             |               |                  | 748              | 8,976              | 9.07           | 81,412                 | 81,412           |
| Connestee (monthly)             |             |               |                  | 524              | 6,288              | 4.79           | 30,120                 | 30,120           |
| Total Availability              | -           |               |                  | 2,762            | 18,874             |                | 191,168                | 191,168          |
| Total Water Revenue             | 510,113,456 |               | 2,474,393        | 14,804           | 163,378            |                | 3,189,078              | 15,122,929       |

Carolina Water Service, Inc. of North Carolina  
Docket No. W-354, Sub 356  
For the 12 Months Ending December 31, 2016

Casselberry  
Exhibit No. 11  
Page 1 of 5

Public Staff's Revenue at Proposed Rates Consolidated

| CWSNC Water               |               |       |           |           |             |          |             |            |
|---------------------------|---------------|-------|-----------|-----------|-------------|----------|-------------|------------|
| Billing                   |               | Usage | Usage     | EOP       | EOP         | Base     | Base Charge | Total      |
| Type                      | Usage         | Rate  | Revenue   | Customers | x 12 months | Charge   | Revenue     | Revenue    |
| Flat Residential          | -             |       | -         | 515       | 6,180       | 50.17    | 310,051     | 310,051    |
| 5/8" Residential Metered  | 976,247,192   | 7.70  | 7,517,103 | 20,435    | 245,220     | 26.95    | 6,608,679   | 14,125,782 |
| 3/4" Residential Metered  | 1,484,382     | 7.70  | 11,430    | 41        | 492         | 26.95    | 13,259      | 24,689     |
| 1" Residential Metered    | 3,712,770     | 7.70  | 28,588    | 42        | 504         | 67.38    | 33,960      | 62,548     |
| 1.5" Residential Metered  | 5,902,582     | 7.70  | 45,450    | 34        | 408         | 134.75   | 54,978      | 100,428    |
| 2" Residential Metered    | 3,018,594     | 7.70  | 23,243    | 19        | 228         | 215.60   | 49,157      | 72,400     |
| Total Residential Metered | 990,365,520   |       | 7,625,815 | 20,571    | 246,852     |          | 6,760,033   | 14,385,847 |
| 5/8" Commercial Metered   | 14,506,835    | 7.70  | 111,703   | 251       | 3,012       | 26.95    | 81,173      | 192,876    |
| 1" Commercial Metered     | 7,691,688     | 7.70  | 59,226    | 45        | 540         | 67.38    | 36,385      | 95,611     |
| 1.5" Commercial Metered   | 9,549,507     | 7.70  | 73,531    | 27        | 324         | 134.75   | 43,659      | 117,190    |
| 2" Commercial Metered     | 23,004,868    | 7.70  | 177,137   | 76        | 912         | 215.60   | 196,627     | 373,765    |
| 3" Commercial Metered     | 11,483,797    | 7.70  | 88,425    | 7         | 84          | 404.25   | 33,957      | 122,382    |
| 4" Commercial Metered     | 776,970       | 7.70  | 5,983     | 1         | 12          | 673.75   | 8,085       | 14,068     |
| 6" Commercial Metered     | 2,112,670     | 7.70  | 16,268    | 2         | 24          | 1,347.50 | 32,340      | 48,608     |
| Total Commercial Metered  | 69,126,335    |       | 532,273   | 409       | 4,908       |          | 432,227     | 964,500    |
| Total                     | 1,059,491,855 |       | 8,158,087 | 21,495    | 257,940     |          | 7,502,310   | 15,660,397 |

Carolina Water Service, Inc. of North Carolina  
Docket No. W-354, Sub 356  
For the 12 Months Ending December 31, 2016

Casselberry  
Exhibit No. 11  
Page 2 of 5

Public Staff's Revenue at Proposed Rates Consolidated

CWSNC Water

Elk River

| Billing<br>Type           | Usage         | Usage<br>Rate | Usage<br>Revenue | EOP<br>Customers | EOP<br>x 12 months | Base<br>Charge | Base Charge<br>Revenue | Total<br>Revenue |
|---------------------------|---------------|---------------|------------------|------------------|--------------------|----------------|------------------------|------------------|
| 5/8" Residential Metered  | 2,945         | 4.29          | 13               | 2                | 24                 | 19.52          | 468                    | 481              |
| 3/4" Residential Metered  | 5,429,230     | 4.29          | 23,291           | 257              | 3,084              | 19.52          | 60,200                 | 83,491           |
| 1" Residential Metered    | 1,066,399     | 4.29          | 4,575            | 31               | 372                | 48.79          | 18,150                 | 22,725           |
| Total Residential Metered | 6,498,574     |               | 27,879           | 290              | 3,480              |                | 78,818                 | 106,697          |
| 5/8" Commercial Metered   | 394,409       | 4.29          | 1,692            | 28               | 336                | 19.52          | 6,559                  | 8,251            |
| 1" Commercial Metered     | 128,140       | 4.29          | 550              | 1                | 12                 | 48.79          | 585                    | 1,135            |
| 2" Commercial Metered     | 337,164       | 4.29          | 1,446            | 4                | 48                 | 156.12         | 7,494                  | 8,940            |
| Total Commercial Metered  | 859,713       |               | 3,688            | 33               | 396                |                | 14,638                 | 18,326           |
| Total                     | 7,358,287     |               | 31,567           | 323              | 3,876              |                | 93,456                 | 125,023          |
| Availability              |               |               |                  |                  |                    |                |                        |                  |
| Linville Ridge (monthly)  | -             |               | -                | 63               | 756                | 12.32          | 9,314                  | 9,314            |
| Sapphire Valley (monthly) |               |               |                  | 748              | 8,976              | 9.07           | 81,412                 | 81,412           |
| Conneestee (monthly)      |               |               |                  | 524              | 6,288              | 4.79           | 30,120                 | 30,120           |
| Total Uniform             | 1,066,850,142 |               | 8,189,654        | 23,153           | 277,836            |                | 7,716,612              | 15,906,266       |



Carolina Water Service, Inc. of North Carolina  
Docket No. W-354, Sub 356  
For the 12 Months Ending December 31, 2016

Casselberry  
Exhibit No. 11  
Page 3 of 5

Public Staff's Revenue at Proposed Rates Consolidated

Purchased water

Carolina Trace

| Billing<br>Type           | Usage      | Usage<br>Rate | Usage<br>Revenue | EOP<br>Customers | EOP<br>x 12 months | Base<br>Charge | Base Charge<br>Revenue | Total<br>Revenue |
|---------------------------|------------|---------------|------------------|------------------|--------------------|----------------|------------------------|------------------|
| 5/8" Residential Metered  | 58,012,009 | 2.21          | 128,207          | 1,573            | 18,876             | 26.95          | 508,708                | 636,915          |
| 1" Residential Metered    | 57,320     | 2.21          | 127              | 1                | 12                 | 67.38          | 809                    | 935              |
| 2" Residential Metered    | 29,800     | 2.21          | 66               | 2                | 24                 | 215.60         | 5,174                  | 5,240            |
| Total Residential Metered | 58,099,129 |               | 128,399          | 1,576            | 18,912             |                | 514,691                | 643,090          |
| 5/8" Commercial Metered   | 1,096,820  | 2.21          | 2,424            | 24               | 288                | 26.95          | 7,762                  | 10,186           |
| 1" Commercial Metered     | 157,220    | 2.21          | 347              | 2                | 24                 | 67.38          | 1,617                  | 1,965            |
| 1.5" Commercial Metered   | 500,700    | 2.21          | 1,107            | 1                | 12                 | 134.75         | 1,617                  | 2,724            |
| 2" Commercial Metered     | 2,710,830  | 2.21          | 5,991            | 3                | 36                 | 215.60         | 7,762                  | 13,753           |
| Total Commercial Metered  | 4,465,570  |               | 9,869            | 30               | 360                |                | 18,757                 | 28,626           |
| Total                     | 62,564,699 |               | 138,268          | 1,606            | 19,272             |                | 533,448                | 671,716          |

Carolina Forest

|                          |           |      |        |     |       |        |        |        |
|--------------------------|-----------|------|--------|-----|-------|--------|--------|--------|
| 5/8" Residential Metered | 5,727,411 | 3.19 | 18,270 | 197 | 2,364 | 26.95  | 63,710 | 81,980 |
| 1" Residential Metered   | 84,710    | 3.19 | 270    | 1   | 12    | 67.38  | 809    | 1,079  |
| 5/8" Commercial Metered  | 29,462    | 3.19 | 94     | 4   | 48    | 26.95  | 1,294  | 1,388  |
| 1" Commercial Metered    | 161,610   | 3.19 | 516    | 1   | 12    | 67.38  | 809    | 1,324  |
| 1.5" Commercial Metered  | 67,123    | 3.19 | 214    | 1   | 12    | 134.75 | 1,617  | 1,831  |
| Total                    | 6,070,316 |      | 19,364 | 204 | 2,448 |        | 68,238 | 87,602 |

Carolina Forest (semi annually)

|       |           |  |        |     |       |       |         |         |
|-------|-----------|--|--------|-----|-------|-------|---------|---------|
| Total | 6,070,316 |  | 19,364 | 938 | 3,916 | 24.64 | 36,172  | 36,172  |
|       |           |  |        |     |       |       | 104,409 | 123,773 |

OFFICIAL COPY

Sep 19 2017

Carolina Water Service, Inc. of North Carolina  
Docket No. W-354, Sub 356  
For the 12 Months Ending December 31, 2016

Casselberry  
Exhibit No. 11  
Page 4 of 5

Public Staff's Revenue at Proposed Rates Consolidated

Purchased Water

High Vista Estates

|                          |            |      |        |     |       |        |        |         |
|--------------------------|------------|------|--------|-----|-------|--------|--------|---------|
| 5/8" Residential Metered | 10,550,670 | 3.25 | 34,290 | 234 | 2,808 | 26.95  | 75,676 | 109,965 |
| 1" Residential Metered   | 61,500     | 3.25 | 200    | 1   | 12    | 67.38  | 809    | 1,008   |
| 5/8" Commercial Metered  | 11,000     | 3.25 | 36     | 1   | 12    | 26.95  | 323    | 359     |
| 2" Commercial Metered    | 926,700    | 3.25 | 3,012  | 2   | 24    | 215.60 | 5,174  | 8,186   |
| Total                    | 11,549,870 |      | 37,537 | 238 | 2,856 |        | 81,982 | 119,519 |

Riverpointe

|                          |            |      |         |     |       |       |        |         |
|--------------------------|------------|------|---------|-----|-------|-------|--------|---------|
| 5/8" Residential Metered | 15,752,797 | 6.30 | 99,243  | 190 | 2,280 | 26.95 | 61,446 | 160,689 |
| 5/8" Commercial Metered  | 727,260    | 6.30 | 4,582   | 5   | 60    | 26.95 | 1,617  | 6,199   |
| Total                    | 16,480,057 |      | 103,824 | 195 | 2,340 |       | 63,063 | 166,887 |

Whispering Pines

|                          |            |      |         |       |        |        |         |         |
|--------------------------|------------|------|---------|-------|--------|--------|---------|---------|
| 5/8" Residential Metered | 85,279,733 | 2.23 | 190,174 | 1,519 | 18,228 | 26.95  | 491,245 | 681,418 |
| 1" Residential Metered   | 1,208,810  | 2.23 | 2,696   | 15    | 180    | 67.38  | 12,128  | 14,824  |
| 5/8" Commercial Metered  | 993,770    | 2.23 | 2,216   | 28    | 336    | 26.95  | 9,055   | 11,271  |
| 1" Commercial Metered    | 2,181,248  | 2.23 | 4,864   | 5     | 60     | 67.38  | 4,043   | 8,907   |
| 1.5" Commercial Metered  | 621,389    | 2.23 | 1,386   | 5     | 60     | 134.75 | 8,085   | 9,471   |
| 2" Commercial Metered    | 419,900    | 2.23 | 936     | 1     | 12     | 215.60 | 2,587   | 3,524   |
| 4" Commercial Metered    | 500        | 2.23 | 1       | 1     | 12     | 673.75 | 8,085   | 8,086   |
| Total                    | 90,705,350 |      | 202,273 | 1,574 | 18,888 |        | 535,228 | 737,501 |

Carolina Water Service, Inc. of North Carolina  
Docket No. W-354, Sub 356  
For the 12 Months Ending December 31, 2016

Casselberry  
Exhibit No. 11  
Page 5 of 5

Public Staff's Revenue at Proposed Rates Consolidated

Purchased Water

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

|                          |            |      |        |     |       |        |         |         |
|--------------------------|------------|------|--------|-----|-------|--------|---------|---------|
| 5/8" Residential Metered | 25,363,484 | 3.25 | 82,431 | 507 | 6,084 | 26.95  | 163,964 | 246,395 |
| 1.5" Commercial Metered  | 184,500    | 3.25 | 600    | 1   | 12    | 134.75 | 1,617   | 2,217   |
| Total                    | 25,547,984 |      | 83,031 | 508 | 6,096 |        | 165,581 | 248,612 |

Woodrun

|                          |            |      |        |       |       |       |         |         |
|--------------------------|------------|------|--------|-------|-------|-------|---------|---------|
| 5/8" Residential Metered | 17,048,700 | 3.19 | 54,385 | 463   | 5,556 | 26.95 | 149,734 | 204,120 |
| 5/8" Commercial Metered  | 122,120    | 3.19 | 390    | 4     | 48    | 26.95 | 1,294   | 1,683   |
| 1" Commercial Metered    | 388,136    | 3.19 | 1,238  | 1     | 12    | 67.38 | 809     | 2,047   |
| Total                    | 17,558,956 |      | 56,013 | 468   | 5,616 |       | 151,836 | 207,849 |
| Woodrun (semi annually)  |            |      |        | 693   | 1,386 | 24.64 | 34,151  | 34,151  |
| Total                    | 17,558,956 |      | 56,013 | 1,161 | 7,002 |       | 185,987 | 242,000 |

Yorktown

|                          |           |      |        |     |       |       |        |        |
|--------------------------|-----------|------|--------|-----|-------|-------|--------|--------|
| 5/8" Residential Metered | 3,755,800 | 5.01 | 18,817 | 107 | 1,284 | 26.95 | 34,604 | 53,420 |
|--------------------------|-----------|------|--------|-----|-------|-------|--------|--------|

Zemosa Acres

|                          |            |      |        |     |       |       |        |         |
|--------------------------|------------|------|--------|-----|-------|-------|--------|---------|
| 5/8" Residential Metered | 12,124,948 | 5.27 | 63,898 | 239 | 2,868 | 26.95 | 77,293 | 141,191 |
| 1" Residential Metered   | 66,819     | 5.27 | 352    | 2   | 24    | 67.38 | 1,617  | 1,969   |
| 1" Commercial Metered    | 90,807     | 5.27 | 479    | 1   | 12    | 67.38 | 809    | 1,287   |
| Total                    | 12,282,574 |      | 64,729 | 242 | 2,904 |       | 79,718 | 144,447 |

|       |               |  |           |        |         |  |           |            |
|-------|---------------|--|-----------|--------|---------|--|-----------|------------|
| TOTAL | 1,313,365,748 |  | 8,913,511 | 29,723 | 342,394 |  | 9,500,633 | 18,414,144 |
|-------|---------------|--|-----------|--------|---------|--|-----------|------------|

Carolina Water Service, Inc. of North Carolina  
Docket No. W-354, Sub 356  
For the 12 Months Ending December 31, 2016  
SEWER

Casselberry  
Exhibit No. 12  
Page 1 of 7

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 |
|------------------------------|-------------|------------|---------------|---------------|-----------------|-------------|---------------------|---------------|
| Residential Flat, Sewer      |             | -          | -             | 1,576         | 18,912          | 52.55       | 993,826             | 993,826       |
| 5/8" Residential Metered (1) | 293,436,504 | 2.90       | 850,966       | 6,819         | 81,828          | 42.40       | 3,489,507           | 4,320,473     |
| 1" Res Metered (2)           | 702,202     | 2.90       | 2,036         | 15            | 180             | 42.40       | 7,632               | 9,668         |
| 2" Res Metered               | 42,700      | 2.90       | 124           | 1             | 12              | 42.40       | 509                 | 633           |
| Total Residential            | 294,181,406 |            | 853,126       | 8,411         | 100,932         |             | 4,471,474           | 5,324,600     |
| Commercial Flat Rate         |             | -          | -             | 41            | 492             | 52.55       | 25,855              | 25,855        |
| 5/8" Commercial Metered      | 23,559,317  | 2.90       | 68,322        | 382           | 4,584           | 42.40       | 194,362             | 262,684       |
| 1" Commercial Metered        | 283,780     | 2.90       | 823           | 4             | 48              | 108.00      | 5,088               | 5,911         |
| 1.5" Commercial Metered      | 2,537,200   | 2.90       | 7,358         | 5             | 60              | 211.99      | 12,719              | 20,077        |
| 2" Commercial Metered        | 13,518,150  | 2.90       | 39,203        | 39            | 468             | 339.18      | 158,736             | 197,939       |
| 3" Commercial Metered        | 9,047,670   | 2.90       | 26,238        | 4             | 48              | 635.97      | 30,527              | 56,765        |
| 4" Commercial Metered        | 776,970     | 2.90       | 2,263         | 1             | 12              | 1,059.95    | 12,719              | 14,973        |
| Total Commercial             | 49,723,087  |            | 144,197       | 476           | 5,712           |             | 440,006             | 584,203       |
| Regalwood                    | -           |            | -             | 357           | 4,284           | 52.55       | 225,124             | 225,124       |
| White Oaks                   | -           |            | -             | 688           | 8,256           | 52.55       | 433,853             | 433,853       |
| White Oaks School            | -           |            | -             | 1             | 12              | 1,630.74    | 19,569              | 19,569        |
| Child Castle Daycare         | -           |            | -             | 1             | 12              | 202.85      | 2,434               | 2,434         |
| Total                        | 343,904,493 |            | 997,323       | 9,934         | 119,208         |             | 5,592,459           | 6,589,783     |

Carolina Water Service, Inc. of North Carolina  
Docket No. W-354, Sub 356  
Test Year Ending December 31, 2016  
SEWER

Casselberry  
Exhibit No. 12  
Page 2 of 7

Public Staff's Revenue at Present Rates

| Billing<br>Type        | Usage             | Usage<br>Rate | Usage<br>Revenue | EOP<br>Customers | EOP<br>x 12 months | Base<br>Charge | Base Charge<br>Revenue | Total<br>Revenue |
|------------------------|-------------------|---------------|------------------|------------------|--------------------|----------------|------------------------|------------------|
| <b>CL/MS</b>           |                   |               |                  |                  |                    |                |                        |                  |
| 5/8" Residential Sewer | 41,519,782        | 6.62          | 274,861          | 775              | 9,300              | 52.06          | 484,168                | 759,019          |
| 1" Residential Sewer   | 9,651,480         | 6.62          | 63,893           | 91               | 1,092              | 130.15         | 142,124                | 206,017          |
| 5/8" Commercial Sewer  | 6,522,778         | 6.62          | 43,181           | 71               | 852                | 52.06          | 44,355                 | 87,536           |
| 1" Commercial Sewer    | 3,035,120         | 6.62          | 20,092           | 18               | 216                | 130.15         | 28,112                 | 48,205           |
| 1.5" Commercial Sewer  | 1,258,800         | 6.62          | 8,333            | 3                | 36                 | 260.31         | 9,371                  | 17,704           |
| 2" Commercial Sewer    | 1,935,400         | 6.62          | 12,812           | 3                | 36                 | 416.49         | 14,994                 | 27,806           |
| 3" Commercial Sewer    | 126,000           | 6.62          | 834              | 1                | 12                 | 780.92         | 9,371                  | 10,205           |
| <b>Total</b>           | <b>64,049,360</b> |               | <b>424,007</b>   | <b>962</b>       | <b>11,544</b>      |                | <b>732,485</b>         | <b>1,156,492</b> |

| Billing<br>Type       | Usage     | Usage<br>Rate | Usage<br>Revenue | EOP<br>Customers | EOP<br>x 12 months | Base<br>Charge | Base Charge<br>Revenue | Total<br>Revenue |
|-----------------------|-----------|---------------|------------------|------------------|--------------------|----------------|------------------------|------------------|
| <b>Nags Head</b>      |           |               |                  |                  |                    |                |                        |                  |
| Flat Rate             | -         |               | -                | 657              | 7,884              | 62.65          | 493,933                | 493,933          |
| 5/8" Commercial Sewer | 1,690,810 | 9.31          | 15,741           | 11               | 132                | 18.43          | 2,433                  | 18,174           |
| 1" Commercial Sewer   | 4,448,850 | 9.31          | 41,419           | 7                | 84                 | 46.10          | 3,872                  | 45,291           |
| 1.5" Commercial Sewer | 1,661,830 | 9.31          | 15,472           | 4                | 48                 | 92.19          | 4,425                  | 19,897           |
| 2" Commercial Sewer   | 5,242,500 | 9.31          | 48,808           | 7                | 84                 | 147.51         | 12,391                 | 61,199           |

Carolina Water Service, Inc. of North Carolina  
Docket No. W-354, Sub 356  
Test Year Ending December 31, 2016  
SEWER

Casselberry  
Exhibit No. 12  
Page 3 of 7

Public Staff's Revenue at Present Rates

Nags Head

| Billing<br>Type     | Usage             | Usage<br>Rate | Usage<br>Revenue | EOP<br>Customers | EOP<br>x 12 months | Base<br>Charge | Base Charge<br>Revenue | Total<br>Revenue |
|---------------------|-------------------|---------------|------------------|------------------|--------------------|----------------|------------------------|------------------|
| 6" Commercial Sewer | 3,792,952         | 9.31          | 35,312           | 2                | 24                 | 921.93         | 22,126                 | 57,439           |
| <b>Total</b>        | <b>16,836,942</b> |               | <b>156,752</b>   | <b>688</b>       | <b>8,256</b>       |                | <b>539,180</b>         | <b>695,932</b>   |

|              |            |      |        |     |       |       |         |         |
|--------------|------------|------|--------|-----|-------|-------|---------|---------|
| Mount Carmel | 16,060,320 | 5.88 | 94,435 | 387 | 4,644 | 34.10 | 158,360 | 252,795 |
|--------------|------------|------|--------|-----|-------|-------|---------|---------|

College Park

|                              |                  |      |               |           |            |       |               |               |
|------------------------------|------------------|------|---------------|-----------|------------|-------|---------------|---------------|
| Residential Flat, Sewer only | -                | -    | -             | 1         | 12         | 52.55 | 631           | 631           |
| 5/8" Residential Metered     | 2,355,400        | 5.70 | 13,426        | 49        | 588        | 33.92 | 19,945        | 33,371        |
| <b>Total</b>                 | <b>2,355,400</b> |      | <b>13,426</b> | <b>50</b> | <b>600</b> |       | <b>20,576</b> | <b>34,001</b> |

Kings Grant

|                          |                  |      |               |            |              |       |               |                |
|--------------------------|------------------|------|---------------|------------|--------------|-------|---------------|----------------|
| 5/8" Residential Metered | 7,969,580        | 3.80 | 30,284        | 177        | 2,124        | 33.92 | 72,046        | 102,330        |
| 1" Res Metered           | 284,918          | 3.80 | 1,083         | 1          | 12           | 33.92 | 407           | 1,490          |
| <b>Total</b>             | <b>8,254,498</b> |      | <b>31,367</b> | <b>178</b> | <b>2,136</b> |       | <b>72,453</b> | <b>103,820</b> |

White Oak Plantation/Lee  
Forest/Winston Pointe

|                          |            |      |        |     |       |       |         |         |
|--------------------------|------------|------|--------|-----|-------|-------|---------|---------|
| 5/8" Residential Metered | 20,139,604 | 4.55 | 91,635 | 417 | 5,004 | 33.92 | 169,736 | 261,371 |
|--------------------------|------------|------|--------|-----|-------|-------|---------|---------|

Carolina Water Service, Inc. of North Carolina  
Docket No. W-354, Sub 356  
For the 12 Months Ending December 31, 2016  
SEWER

Casselberry  
Exhibit No. 12  
Page 4 of 7

Public Staff's Revenue at Present Rates

Fairfield Mountain

| Billing<br>Type        | Usage            | Usage<br>Rate | Usage<br>Revenue | EOP<br>Customers | EOP<br>x 12 months | Base<br>Charge | Base Charge<br>Revenue | Total<br>Revenue |
|------------------------|------------------|---------------|------------------|------------------|--------------------|----------------|------------------------|------------------|
| 5/8" Res. Collection   |                  |               | -                | 398              | 4,776              | 86.67          | 413,936                | 413,936          |
| 1" Res Collection      |                  |               | -                | 12               | 144                | 86.67          | 12,480                 | 12,480           |
| Residential Collection |                  |               | -                | 410              | 4,920              |                | 426,416                | 426,416          |
| Small Commercial       | 1,297,790        | 12.16         | 15,781.13        | 7                | 84                 | 78.50          | 6,594                  | 22,375           |
| Medium Commercial      | 2,230,760        | 12.16         | 27,126.04        | 11               | 132                | 139.50         | 18,414                 | 45,540           |
| Large Commercial       | 405,620          | 12.16         | 4,932.34         | 3                | 36                 | 219.50         | 7,902                  | 12,834           |
| Nonresidential Metered | 3,934,170.00     |               | 47,839.51        | 21               | 252                |                | 32,910.00              | 80,750           |
| <b>Total</b>           | <b>3,934,170</b> |               | <b>47,840</b>    | <b>419</b>       | <b>5,028</b>       |                | <b>446,846</b>         | <b>494,685</b>   |

Sapphire Valley

| Billing<br>Type                  | Usage             | Usage<br>Rate | Usage<br>Revenue | EOP<br>Customers | EOP<br>x 12 months | Base<br>Charge | Base Charge<br>Revenue | Total<br>Revenue |
|----------------------------------|-------------------|---------------|------------------|------------------|--------------------|----------------|------------------------|------------------|
| 3/4" Residential Metered         | -                 |               | -                | -                | -                  |                | -                      | -                |
| 5/8" Residential Metered         | 14,849,302        |               |                  | 652              | 7,824              | 35.52          | 277,908                | 277,908          |
| 1" Res Residential Metered       | 140,436           |               |                  | 2                | 24                 | 35.52          | 852                    | 852              |
| 1.5" Residential Metered         | 5,583,382         |               |                  | 128              | 1,536              | 35.52          | 54,559                 | 54,559           |
| 2" Residential Metered           | 2,844,594         |               |                  | 68               | 816                | 35.52          | 28,984                 | 28,984           |
| <b>Total Residential Metered</b> | <b>23,417,714</b> |               | <b>-</b>         | <b>850</b>       | <b>10,200</b>      |                | <b>362,304</b>         | <b>362,304</b>   |

OFFICIAL COPY

Sep 19 2017

Carolina Water Service, Inc. of North Carolina  
Docket No. W-354, Sub 356  
For the 12 Months Ending December 31, 2016  
SEWER

Casselberry  
Exhibit No. 12  
Page 5 of 7

Public Staff's Revenue at Present Rates

| Billing<br>Type            | Usage      | Usage<br>Rate | Usage<br>Revenue | EOP<br>Customers | EOP<br>x 12 months | Base<br>Charge | Base Charge<br>Revenue | Total<br>Revenue |
|----------------------------|------------|---------------|------------------|------------------|--------------------|----------------|------------------------|------------------|
| <b>Sapphire Valley</b>     |            |               |                  |                  |                    |                |                        |                  |
| 5/8" Commercial Metered    | 1,322,216  | 7.88          | 10,419           | 18               | 216                | 15.62          | 3,374                  | 13,793           |
| 1" Commercial Metered      | 689,846    | 7.88          | 5,436            | 2                | 24                 | 39.04          | 937                    | 6,373            |
| 1.5" Commercial Metered    | 1,174,149  | 7.88          | 9,252            | 4                | 48                 | 78.08          | 3,748                  | 13,000           |
| 2" Commercial Metered      | 974,892    | 7.88          | 7,682            | 6                | 72                 | 124.92         | 8,994                  | 16,676           |
| 3" Commercial Metered      | 1,484,827  | 7.88          | 11,700           | 1                | 12                 | 234.23         | 2,811                  | 14,511           |
| Total Commercial Metered   | 5,645,930  |               | 44,490           | 31               | 372                |                | 19,864                 | 64,354           |
| Availability               |            |               |                  | 89               | 1,068              | 8.28           | 8,843                  | 8,843            |
| Total                      | 29,063,644 |               | 44,490           | 970              | 11,640             |                | 391,011                | 435,501          |
| <b>Carolina Trace</b>      |            |               |                  |                  |                    |                |                        |                  |
| Billing<br>Type            | Usage      | Usage<br>Rate | Usage<br>Revenue | EOP<br>Customers | EOP<br>x 12 months | Base<br>Charge | Base Charge<br>Revenue | Total<br>Revenue |
| 5/8" Residential Metered   | 56,774,289 | 8.38          | 475,769          | 1,540            | 18,480             | 35.41          | 654,377                | 1,130,145        |
| 1" Res Residential Metered | 57,320     | 8.38          | 480              | 1                | 12                 | 35.41          | 425                    | 905              |
| 2" Residential Metered     | 29,800     | 8.38          | 250              | 2                | 24                 | 35.41          | 850                    | 1,100            |
| Total Residential Metered  | 56,861,409 |               | 476,499          | 1,543            | 18,516             |                | 655,652                | 1,132,150        |



Carolina Water Service, Inc. of North Carolina  
 Docket No. W-354, Sub 356  
 For the 12 Months Ending December 31, 2016  
 SEWER

Casselberry  
 Exhibit No. 12  
 Page 6 of 7

Public Staff's Revenue at Present Rates

Carolina Trace

| Billing<br>Type          | Usage      | Usage<br>Rate | Usage<br>Revenue | EOP<br>Customers | EOP<br>x 12 months | Base<br>Charge | Base Charge<br>Revenue | Total<br>Revenue |
|--------------------------|------------|---------------|------------------|------------------|--------------------|----------------|------------------------|------------------|
| 5/8" Commercial Metered  | 799,910    | 8.38          | 6,703            | 15               | 180                | 35.41          | 6,374                  | 13,077           |
| 1" Commercial Metered    | 157,220    | 8.38          | 1,318            | 2                | 24                 | 35.41          | 850                    | 2,167            |
| 1.5" Commercial Metered  | 500,700    | 8.38          | 4,196            | 1                | 12                 | 35.41          | 425                    | 4,621            |
| 2" Commercial Metered    | 89,900     | 8.38          | 753              | 1                | 12                 | 35.41          | 425                    | 1,178            |
| Total Commercial Metered | 1,547,730  |               | 12,970           | 19               | 228                |                | 8,073                  | 21,043           |
| Total                    | 58,409,139 |               | 489,469          | 1,562            | 18,744             |                | 663,725                | 1,153,194        |

Conestee Falls

| Billing<br>Type       | Usage      | Usage<br>Rate | Usage<br>Revenue | EOP<br>Customers | EOP<br>x 12 months | Base<br>Charge | Base Charge<br>Revenue | Total<br>Revenue |
|-----------------------|------------|---------------|------------------|------------------|--------------------|----------------|------------------------|------------------|
| Flat Rate             | -          |               | -                | 5                | 60                 | 45.11          | 2,707                  | 2,707            |
| 5/8" Residential      | 26,314,000 | 6.75          | 177,620          | 984              | 11,808             | 26.86          | 317,163                | 494,782          |
| 5/8" Commercial Sewer | 147,000    | 6.75          | 992              | 7                | 84                 | 26.86          | 2,256                  | 3,248            |
| 2" Commercial Sewer   | 869,000    | 6.75          | 5,866            | 1                | 12                 | 214.89         | 2,579                  | 8,444            |
| Availability          |            |               |                  | 259              | 3,108              | 4.69           | 14,577                 | 14,577           |
| Total                 | 27,330,000 |               | 184,478          | 1,256            | 15,072             |                | 339,281                | 523,758          |

Carolina Water Service, Inc. of North Carolina  
Docket No. W-354, Sub 356  
For the 12 Months Ending December 31, 2016  
SEWER

Casselberry  
Exhibit No. 12  
Page 7 of 7

Public Staff's Revenue at Present Rates

Elk River

| Billing<br>Type            | Usage       | Usage<br>Rate | Usage<br>Revenue | EOP<br>Customers | EOP<br>x 12 months | Base<br>Charge | Base Charge<br>Revenue | Total<br>Revenue |
|----------------------------|-------------|---------------|------------------|------------------|--------------------|----------------|------------------------|------------------|
| 3/4" Residential Metered   | 124         | 3.00          | 0                | 1                | 12                 | 23.38          | 281                    | 281              |
| 1" Res Residential Metered | 11,439      | 3.00          | 34               | 1                | 12                 | 58.45          | 701                    | 736              |
| Total Residential Metered  | 11,563      |               | 34               | 2                | 24                 |                | 982                    | 1,017            |
| 5/8" Commercial Sewer      | 2,946       | 3.00          | 9                | 2                | 24                 | 23.38          | 561                    | 570              |
| 3/4" Commercial Sewer      | 1,370,696   | 3.00          | 4,112            | 100              | 1,200              | 23.38          | 28,056                 | 32,168           |
| 1" Commercial Sewer        | 240,599     | 3.00          | 722              | 21               | 252                | 58.45          | 14,729                 | 15,451           |
| 2" Commercial Sewer        | 238,005     | 3.00          | 714              | 2                | 24                 | 187.05         | 4,489                  | 5,203            |
| Total Commercial Sewer     | 1,852,145   |               | 5,556            | 125              | 1,500              |                | 47,836                 | 53,392           |
| Total                      | 1,863,708   |               | 5,590            | 127              | 1,524              |                | 48,818                 | 54,409           |
| Total                      | 592,201,278 |               | 2,580,810        | 18,950           | 203,400            |                | 9,174,930              | 11,756,741       |

- 1 Increased usage by 694,871 for SkyLeaf and reduced usage by 7,969,580 for Kings Grant - Charlotte
- 2 Reduced usage by 284,918 for Kings Grant - Charlotte

Carolina Water Service, Inc. of North Carolina  
Docket No. W-354, Sub 356  
For the 12 Months Ending December 31, 2016

Casselberry  
Exhibit No. 13  
Page 1 of 5

Public Staff's Revenue at Proposed Rates Consolidated

CWSNC Sewer

| Billing<br>Type          | Usage       | Usage<br>Rate | Usage<br>Revenue | EOP<br>Customers | EOP<br>x 12 months | Base<br>Charge | Base Charge<br>Revenue | Total<br>Revenue |
|--------------------------|-------------|---------------|------------------|------------------|--------------------|----------------|------------------------|------------------|
| Residential Flat, Sewer  |             | -             | -                | 3,088            | 37,056             | 60.22          | 2,231,512              | 2,231,512        |
| 5/8" Residential Metered | 376,524,793 | 3.32          | 1,250,082        | 9,343            | 112,116            | 48.59          | 5,447,716              | 6,697,779        |
| 1" Res Metered           | 759,522     | 3.32          | 2,522            | 16               | 192                | 121.48         | 23,324                 | 25,846           |
| 1.5" Res Metered         | 29,800      | 3.32          | 99               | -                | -                  | 242.95         | -                      | 99               |
| 2" Res Metered           | 42,700      | 3.32          | 142              | 3                | 36                 | 388.72         | 13,994                 | 14,136           |
| Commercial Flat Rate     |             | -             | -                | 41               | 492                | 60.22          | 29,628                 | 29,628           |
| 5/8" Commercial Metered  | 27,519,253  | 3.32          | 91,364           | 433              | 5,196              | 48.59          | 252,474                | 343,838          |
| 1" Commercial Metered    | 6,448,696   | 3.32          | 21,410           | 15               | 180                | 121.48         | 21,866                 | 43,276           |
| 1.5" Commercial Metered  | 5,873,879   | 3.32          | 19,501           | 14               | 168                | 242.95         | 40,816                 | 60,317           |
| 2" Commercial Metered    | 19,825,442  | 3.32          | 65,820           | 54               | 648                | 388.72         | 251,891                | 317,711          |
| 3" Commercial Metered    | 10,532,497  | 3.32          | 34,968           | 5                | 60                 | 728.85         | 43,731                 | 78,699           |
| 4" Commercial Metered    | 776,970     | 3.32          | 2,580            | 1                | 12                 | 1,214.75       | 14,577                 | 17,157           |
| 6" Commercial Metered    | 3,792,952   | 3.32          | 12,593           | 2                | 24                 | 2,429.50       | 58,308                 | 70,901           |
| Total                    | 452,126,504 |               | 1,501,060        | 13,015           | 156,180            |                | 8,429,837              | 9,930,897        |
| Regalwood                | -           |               | -                | 357              | 4,284              | 60.22          | 257,982                | 257,982          |
| White Oaks               | -           |               | -                | 688              | 8,256              | 60.22          | 497,176                | 497,176          |
| White Oaks School        | -           |               | -                | 1                | 12                 | 1,868.71       | 22,425                 | 22,425           |
| Child Castle Daycare     | -           |               | -                | 1                | 12                 | 232.45         | 2,789                  | 2,789            |

OFFICIAL COPY

Sep 19 2017

--/1

Carolina Water Service, Inc. of North Carolina  
Docket No. W-354, Sub 356  
For the 12 Months Ending December 31, 2016

Casselberry  
Exhibit No. 13  
Page 2 of 5

Public Staff's Revenue at Proposed Rates Consolidated

| CWSNC Sewer     |                    |       |                  |               |                |        |                  |                   |
|-----------------|--------------------|-------|------------------|---------------|----------------|--------|------------------|-------------------|
| Billing         |                    | Usage | Usage            | EOP           | EOP            | Base   | Base Charge      | Total             |
| Type            | Usage              | Rate  | Revenue          | Customers     | x 12 months    | Charge | Revenue          | Revenue           |
| Availability    |                    |       |                  |               |                |        |                  |                   |
| Sapphire Valley |                    |       |                  | 89            | 1,068          | 8.28   | 8,843            | 8,843             |
| Connestee       |                    |       |                  | 259           | 3,108          | 4.69   | 14,577           | 14,577            |
| <b>Total</b>    | <b>452,126,504</b> |       | <b>1,501,060</b> | <b>14,410</b> | <b>172,920</b> |        | <b>9,233,630</b> | <b>10,734,690</b> |

| Billing      |            | Usage | Usage   | EOP       | EOP         | Base   | Base Charge | Total   |
|--------------|------------|-------|---------|-----------|-------------|--------|-------------|---------|
| Type         | Usage      | Rate  | Revenue | Customers | x 12 months | Charge | Revenue     | Revenue |
| Mount Carmel | 16,060,320 | 5.88  | 94,435  | 387       | 4,644       | 45.84  | 211,952     | 306,387 |

| Billing                      |                  | Usage | Usage         | EOP       | EOP         | Base   | Base Charge   | Total         |
|------------------------------|------------------|-------|---------------|-----------|-------------|--------|---------------|---------------|
| Type                         | Usage            | Rate  | Revenue       | Customers | x 12 months | Charge | Revenue       | Revenue       |
| College Park                 |                  |       |               |           |             |        |               |               |
| Residential Flat, Sewer only | -                | -     | -             | 1         | 12          | 60.22  | 723           | 723           |
| 5/8" Residential Metered     | 2,355,400        | 5.70  | 13,426        | 49        | 588         | 38.87  | 22,856        | 35,281        |
| <b>Total</b>                 | <b>2,355,400</b> |       | <b>13,426</b> | <b>50</b> | <b>600</b>  |        | <b>23,578</b> | <b>37,004</b> |

OFFICIAL COPY

Sep 19 2017

Carolina Water Service, Inc. of North Carolina  
Docket No. W-354, Sub 356  
For the 12 Months Ending December 31, 2016

Casselberry  
Exhibit No. 13  
Page 3 of 5

Public Staff's Revenue at Proposed Rates Consolidated

| CWSNC Sewer              |                  |       |               |            |              |        |               |                |
|--------------------------|------------------|-------|---------------|------------|--------------|--------|---------------|----------------|
| Billing                  |                  | Usage | Usage         | EOP        | EOP          | Base   | Base Charge   | Total          |
| Type                     | Usage            | Rate  | Revenue       | Customers  | x 12 months  | Charge | Revenue       | Revenue        |
| <b>Kings Grant</b>       |                  |       |               |            |              |        |               |                |
| 5/8" Residential Metered | 7,989,580        | 3.80  | 30,284        | 177        | 2,124        | 38.87  | 82,560        | 112,844        |
| 1" Res Metered           | 284,918          | 3.80  | 1,083         | 1          | 12           | 38.87  | 466           | 1,549          |
| <b>Total</b>             | <b>8,254,498</b> |       | <b>31,367</b> | <b>178</b> | <b>2,136</b> |        | <b>83,026</b> | <b>114,393</b> |

| Billing   |            | Usage | Usage   | EOP       | EOP         | Base   | Base Charge | Total   |
|---|------------|-------|---------|-----------|-------------|--------|-------------|---------|
| Type  | Usage      | Rate  | Revenue | Customers | x 12 months | Charge | Revenue     | Revenue |
| <b>White Oak Plantation/Lee Forest/Winston Pointe</b> |            |       |         |           |             |        |             |         |
| 5/8" Residential Metered                              | 20,139,604 | 4.55  | 91,635  | 417       | 5,004       | 38.87  | 194,505     | 286,141 |

Fairfield Mountain

| Billing                      |       | Usage | Usage   | EOP       | EOP         | Base   | Base Charge | Total   |
|------------------------------|-------|-------|---------|-----------|-------------|--------|-------------|---------|
| Type                         | Usage | Rate  | Revenue | Customers | x 12 months | Charge | Revenue     | Revenue |
| 5/8" Res. Collection/Treatm. |       |       | -       | 398       | 4,776       | 108.37 | 517,575     | 517,575 |
| 1" Res Collection/Treatm.    |       |       | -       | 12        | 144         | 108.37 | 15,605      | 15,605  |
| Residential Collection       |       |       | -       | 410       | 4,920       |        | 533,180     | 533,180 |

OFFICIAL COPY

Sep 19 2017

Carolina Water Service, Inc. of North Carolina  
Docket No. W-354, Sub 356  
For the 12 Months Ending December 31, 2016

Casselberry  
Exhibit No. 13  
Page 4 of 5

Public Staff's Revenue at Proposed Rates Consolidated

CWSNC Sewer  
Fairfield Mountain

| Billing<br>Type        | Usage            | Usage<br>Rate | Usage<br>Revenue | EOP<br>Customers | EOP<br>x 12 months | Base<br>Charge | Base Charge<br>Revenue | Total<br>Revenue |
|------------------------|------------------|---------------|------------------|------------------|--------------------|----------------|------------------------|------------------|
| Small Commercial       | 1,297,790        | 13.93         | 18,078.21        | 7                | 84                 | 78.50          | 6,594                  | 24,672           |
| Medium Commercial      | 2,230,760        | 13.93         | 31,074.49        | 11               | 132                | 139.50         | 18,414                 | 49,488           |
| Large Commercial       | 405,620          | 13.93         | 5,650.29         | 3                | 36                 | 219.50         | 7,902                  | 13,552           |
| Nonresidential Metered | 3,934,170.00     |               | 54,802.99        | 21               | 252                |                | 32,910.00              | 87,713           |
| <b>Total</b>           | <b>3,934,170</b> |               | <b>54,803</b>    | <b>419</b>       | <b>5,028</b>       |                | <b>550,485</b>         | <b>605,288</b>   |

CL/MS

|                        |                   |      |                |            |               |        |                |                  |
|------------------------|-------------------|------|----------------|------------|---------------|--------|----------------|------------------|
| 5/8" Residential Sewer | 41,519,782        | 6.62 | 274,861        | 775        | 9,300         | 52.06  | 484,158        | 759,019          |
| 1" Residential Sewer   | 9,651,480         | 6.62 | 63,893         | 91         | 1,092         | 130.15 | 142,124        | 206,017          |
| 5/8" Commercial Sewer  | 6,522,778         | 6.62 | 43,181         | 71         | 852           | 52.06  | 44,355         | 87,536           |
| 1" Commercial Sewer    | 3,035,120         | 6.62 | 20,092         | 18         | 216           | 130.15 | 28,112         | 48,205           |
| 1.5" Commercial Sewer  | 1,258,800         | 6.62 | 8,333          | 3          | 36            | 260.31 | 9,371          | 17,704           |
| 2" Commercial Sewer    | 1,935,400         | 6.62 | 12,812         | 3          | 36            | 416.49 | 14,994         | 27,806           |
| 3" Commercial Sewer    | 126,000           | 6.62 | 834            | 1          | 12            | 780.92 | 9,371          | 10,205           |
| <b>Total</b>           | <b>64,049,360</b> |      | <b>424,007</b> | <b>962</b> | <b>11,544</b> |        | <b>732,485</b> | <b>1,156,492</b> |

Carolina Water Service, Inc. of North Carolina  
Docket No. W-354, Sub 356  
For the 12 Months Ending December 31, 2016

Casselberry  
Exhibit No. 13  
Page 5 of 5

Public Staff's Revenue at Proposed Rates Consolidated

CWSNC Sewer  
Elk River

| Billing<br>Type            | Usage       | Usage<br>Rate | Usage<br>Revenue | EOP<br>Customers | EOP<br>x 12 months | Base<br>Charge | Base Charge<br>Revenue | Total<br>Revenue |
|----------------------------|-------------|---------------|------------------|------------------|--------------------|----------------|------------------------|------------------|
| 5/8" Residential Metered   | 124         | 3.00          | 0                | 1                | 12                 | 23.38          | 281                    | 281              |
| 1" Res Residential Metered | 11,439      | 3.00          | 34               | 1                | 12                 | 58.45          | 701                    | 736              |
| Total Residential Metered  | 11,563      |               | 34               | 2                | 24                 |                | 982                    | 1,017            |
| 5/8" Commercial Metered    | 1,373,541   | 3.00          | 4,121            | 102              | 1,224              | 23.38          | 28,617                 | 32,738           |
| 1" Commercial Metered      | 240,599     | 3.00          | 722              | 21               | 252                | 58.45          | 14,729                 | 15,451           |
| 2" Commercial Metered      | 238,005     | 3.00          | 714              | 2                | 24                 | 187.05         | 4,489                  | 5,203            |
| Total Commercial Metered   | 1,852,145   |               | 5,556            | 125              | 1,500              |                | 47,836                 | 53,392           |
| Total                      | 1,863,708   |               | 5,590            | 127              | 1,524              |                | 48,818                 | 54,409           |
| Total                      | 668,783,564 |               | 2,216,323        | 16,950           | 203,400            |                | 11,078,480             | 13,294,803       |

Carolina Water Service, Inc. of North Carolina  
Docket No. W-354, Sub 356  
For the 12 Months Ending December 31, 2016  
Water

Casselberry  
Exhibit No. 14  
Page 1 of 1

Public Staff's Revenue at Present Rates

Fairfield Harbor

| Billing<br>Type                  | Usage             | Usage<br>Rate | Usage<br>Revenue | EOP<br>Customers | EOP<br>x 12 months | Base<br>Charge | Base Charge<br>Revenue | Total<br>Revenue |
|----------------------------------|-------------------|---------------|------------------|------------------|--------------------|----------------|------------------------|------------------|
| 5/8" Residential Metered         | 79,353,576        | 2.69          | 213,461          | 1,840            | 22,080             | 9.73           | 214,838                | 428,300          |
| 3/4" Residential Metered         | 36,080            | 2.69          | 97               | 2                | 24                 | 9.73           | 234                    | 331              |
| 1" Residential Metered           | 103,450           | 2.69          | 278              | 2                | 24                 | 9.73           | 234                    | 512              |
| <b>Total Residential Metered</b> | <b>79,493,106</b> |               | <b>213,836</b>   | <b>1,844</b>     | <b>22,128</b>      |                | <b>215,305</b>         | <b>429,142</b>   |
| 5/8" Commercial Metered          | 1,343,824         | 2.69          | 3,615            | 22               | 264                | 9.73           | 2,569                  | 6,184            |
| 1" Commercial Metered            | 37,050            | 2.69          | 100              | 1                | 12                 | 24.29          | 291                    | 391              |
| 1.5" Commercial Metered          | 493,700           | 2.69          | 1,328            | 2                | 24                 | 48.58          | 1,166                  | 2,494            |
| 2" Commercial Metered            | 713,200           | 2.69          | 1,919            | 3                | 36                 | 77.74          | 2,799                  | 4,717            |
| <b>Total Commercial Metered</b>  | <b>2,587,774</b>  |               | <b>6,961</b>     | <b>28</b>        | <b>336</b>         |                | <b>6,825</b>           | <b>13,786</b>    |
| Availability                     |                   |               |                  | 874              | 10,488             | 3.28           | 34,401                 | 34,401           |
| <b>Total</b>                     | <b>82,080,880</b> |               | <b>220,798</b>   | <b>2,746</b>     | <b>32,952</b>      |                | <b>256,531</b>         | <b>477,328</b>   |

Bradfield Farms

| Billing<br>Type                  | Usage              | Usage<br>Rate | Usage<br>Revenue | EOP<br>Customers | EOP<br>x 12 months | Base<br>Charge | Base Charge<br>Revenue | Total<br>Revenue |
|----------------------------------|--------------------|---------------|------------------|------------------|--------------------|----------------|------------------------|------------------|
| 5/8" Residential Metered         | 61,620,657         | 1.95          | 120,160          | 952              | 11,424             | 8.29           | 94,705                 | 214,865          |
| 3/4" Residential Metered         | 6,898,799          | 1.95          | 13,453           | 94               | 1,128              | 8.29           | 9,351                  | 22,804           |
| 1" Residential Metered           | 1,032,891          | 1.95          | 2,014            | 5                | 60                 | 8.29           | 497                    | 2,512            |
| <b>Total Residential Metered</b> | <b>69,552,347</b>  |               | <b>135,627</b>   | <b>1,051</b>     | <b>12,612</b>      |                | <b>104,553</b>         | <b>240,181</b>   |
| <b>Total</b>                     | <b>151,633,227</b> |               | <b>356,425</b>   | <b>3,797</b>     | <b>45,564</b>      |                | <b>361,084</b>         | <b>717,509</b>   |

OFFICIAL COPY

Sep 19 2017

--/I



Carolina Water Service, Inc. of North Carolina  
Docket No. W-354, Sub 356  
For the 12 Months December 31, 2016

Casselberry  
Exhibit No. 15  
Page 1 of 1

Public Staff's Revenue at Proposed Rates Consolidated

WATER

Fairfield Harbour and Bradfield Farms Consolidated

| Billing<br>Type           | Usage       | Usage<br>Rate | Usage<br>Revenue | EOP<br>Customers | EOP<br>x 12 months | Base<br>Charge | Base Charge<br>Revenue | Total<br>Revenue |
|---------------------------|-------------|---------------|------------------|------------------|--------------------|----------------|------------------------|------------------|
| 5/8" Residential Metered  | 147,909,112 | 3.55          | 525,077          | 2,888            | 34,656             | 12.84          | 444,983                | 970,060          |
| 1" Residential Metered    | 1,136,341   | 3.55          | 4,034            | 7                | 84                 | 32.10          | 2,696                  | 6,730            |
| Total Residential Metered | 149,045,453 |               | 529,111          | 2,895            | 34,740             |                | 447,679                | 976,791          |
| 5/8" Commercial Metered   | 1,343,824   | 3.55          | 4,771            | 22               | 264                | 12.84          | 3,390                  | 8,160            |
| 1" Commercial Metered     | 37,050      | 3.55          | 132              | 1                | 12                 | 32.10          | 385                    | 517              |
| 1.5" Commercial Metered   | 493,700     | 3.55          | 1,753            | 2                | 24                 | 64.20          | 1,541                  | 3,293            |
| 2" Commercial Metered     | 713,200     | 3.55          | 2,532            | 3                | 36                 | 102.72         | 3,698                  | 6,230            |
| Total Commercial Metered  | 2,587,774   |               | 9,187            | 28               | 336                |                | 9,014                  | 18,200           |
| Availability              |             |               |                  | 874              | 10,488             | 3.28           | 34,401                 | 34,401           |
| Total                     | 151,633,227 |               | 538,298          | 3,797            | 45,564             |                | 491,094                | 1,029,392        |

OFFICIAL COPY

Sep 19 2017

--/7

Carolina Water Service, Inc. of North Carolina  
Docket No. W-354, Sub 356  
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 Harbor          |           |       |         |           |             |        |             |           |
| Billing                   |           | Usage | Usage   | EOP       | EOP         | Base   | Base Charge | Total     |
| Type                      | Usage     | Rate  | Revenue | Customers | x 12 months | Charge | Revenue     | Revenue   |
| 5/8" Residential Metered  | -         |       | -       | 1,829     | 21,948      | 37.89  | 831,610     | 831,610   |
| 1" Residential Metered    | -         |       | -       | 1         | 12          | 37.89  | 455         | 455       |
| Total Residential Metered | -         |       | -       | 1,830     | 21,960      |        | 832,064     | 832,064   |
| 5/8" Commercial Metered   | 1,102,710 | 5.63  | 6,208   | 13        | 156         | 10.17  | 1,587       | 7,795     |
| 1.5" Commercial Metered   | 493,700   | 5.63  | 2,780   | 2         | 24          | 50.85  | 1,220       | 4,000     |
| 2" Commercial Metered     | 528,800   | 5.63  | 2,977   | 1         | 12          | 81.36  | 976         | 3,953     |
| Total Commercial Metered  | 2,125,210 |       | 11,965  | 16        | 192         |        | 3,783       | 15,748    |
| Availability              |           |       |         | 876       | 10,488      | 2.64   | 27,688      | 27,688    |
| Total                     | 2,125,210 |       | 11,965  | 2,722     | 32,640      |        | 863,536     | 875,501   |
| Bradfield Farms           |           |       |         |           |             |        |             |           |
| Billing                   |           | Usage | Usage   | EOP       | EOP         | Base   | Base Charge | Total     |
| Type                      | Usage     | Rate  | Revenue | Customers | x 12 months | Charge | Revenue     | Revenue   |
| 5/8" Residential Metered  |           |       |         | 1,044     | 12,528      | 26.56  | 332,744     | 332,744   |
| 1" Residential Metered    |           |       |         | 2         | 24          | 26.56  | 637         | 637       |
| Bulk Sewer                |           |       |         | 156       | 1,872       | 25.20  | 47,174      | 47,174    |
| Apartments                |           |       |         | 379       | 4,548       | 25.20  | 114,610     | 114,610   |
| Total Residential Metered |           |       |         | 1,581     | 18,972      |        | 495,165     | 495,165   |
| Total                     | 2,125,210 |       | 11,965  | 4,303     | 51,612      |        | 1,358,701   | 1,370,666 |

OFFICIAL COPY

Sep 19 2017

--/I

Carolina Water Service, Inc. of North Carolina  
Docket No. W-354, Sub 356  
For the 12 Months Ending December 31, 2016

Casselberry  
Exhibit No. 17  
Page 1 of 1

**Public Staff's Revenue at Proposed Rates Consolidated**

**Sewer**

**Fairfield Harbour and Bradfield Farms Consolidated**

| Billing<br>Type                  | Usage     | Usage<br>Rate | Usage<br>Revenue | EOP<br>Customers | EOP<br>x 12 months | Base<br>Charge | Base Charge<br>Revenue | Total<br>Revenue |
|----------------------------------|-----------|---------------|------------------|------------------|--------------------|----------------|------------------------|------------------|
| 5/8" Residential Metered         |           |               | -                | 2,873            | 34,476             | 42.83          | 1,476,607              | 1,476,607        |
| 1" Residential Metered           |           |               | -                | 3                | 36                 | 42.83          | 1,542                  | 1,542            |
| Bulk Sewer                       |           |               |                  | 156              | 1,872              | 41.83          | 78,306                 | 78,306           |
| Apartments                       |           |               |                  | 379              | 4,548              | 41.83          | 190,243                | 190,243          |
| <b>Total Residential Metered</b> | -         |               | -                | 3,411            | 40,932             |                | 1,746,698              | 1,746,698        |
| 5/8" Commercial Metered          | 1,102,710 | 6.36          | 7,013            | 13               | 156                | 11.50          | 1,794                  | 8,807            |
| 1.5" Commercial Metered          | 493,700   | 6.36          | 3,140            | 2                | 24                 | 57.50          | 1,380                  | 4,520            |
| 2" Commercial Metered            | 528,800   | 6.36          | 3,363            | 1                | 12                 | 92.00          | 1,104                  | 4,467            |
| <b>Total Commercial Metered</b>  | 2,125,210 |               | 13,516           | 16               | 192                |                | 4,278                  | 17,794           |
| <b>Total</b>                     | 2,125,210 |               | 13,516           | 3,427            | 41,124             |                | 1,750,976              | 1,764,492        |
| Availability                     |           |               |                  | 876              | 10,512             | 2.64           | 27,752                 | 27,752           |
| <b>Total</b>                     | 2,125,210 |               | 13,516           | 4,303            | 51,636             |                | 1,778,727              | 1,792,244        |

OFFICIAL COPY

Sep 19 2017

1-1

Carolina Water Service, Inc. of North Carolina  
Docket No. W-354, Sub 356  
Test Year Ending December 31, 2016

Casselberry  
Exhibit No. 18  
Page 1 of 1

Purchased Water Adjustment for Water Loss

| Service Area       | Total<br>Gallons<br>Purchased | Total<br>Gallons<br>Sold | Loss         | 20%<br>Loss | Sold Plus<br>20% loss | Loss<br>at 20% | Reduction<br>in gallons | Usage<br>Rate<br>per<br>1000 gal. | Adjusted<br>Expense |
|--------------------|-------------------------------|--------------------------|--------------|-------------|-----------------------|----------------|-------------------------|-----------------------------------|---------------------|
| Carolina Forest    | 15,028,400                    | 6,070,316                | 8,958,084.0  | 59.81       | 7,587,895             | 1,517,579      | 7,440,505.00            | 3.19                              | 23,735              |
| High Vista Estates | 18,118,600                    | 11,549,870               | 6,568,630.0  | 36.25       | 14,437,338            | 2,887,468      | 3,681,162.50            | 3.25                              | 11,964              |
| Riverpointe        | 17,744,494                    | 16,480,057               | 1,264,437.0  | 7.13        |                       |                |                         |                                   |                     |
| Whispering Pines   | 105,467,347                   | 90,712,979               | 14,754,368.0 | 13.99       |                       |                |                         |                                   |                     |
| Woodrun            | 23,371,800                    | 17,558,956               | 5,812,844.0  | 24.87       | 21,948,695            | 4,389,739      | 1,423,105.00            | 3.19                              | 4,540               |
| Zemosa Acres       | 15,469,500                    | 12,282,575               | 3,186,925.0  | 20.60       | 15,353,219            | 3,070,644      | 116,281.25              | 5.27                              | 613                 |
| Yorklown           | 4,100,212                     | 3,755,800                | 344,412.0    | 8.40        |                       |                |                         |                                   |                     |
| White Oak          | 23,760,030                    | 25,363,484               |              |             |                       |                |                         |                                   |                     |
| Carolina Trace     | 66,564,699                    | 62,564,699               | 4,000,000.0  | 6.01        |                       |                |                         |                                   |                     |
| Total Loss         |                               |                          |              |             |                       |                |                         |                                   | 40,851              |

OFFICIAL COPY

Sep 19 2017

--/I

Carolina Water Service, Inc. of North Carolina  
Docket No. W-354, Sub 356  
Test Year Ending December 31, 2016

Casselberry  
Exhibit No. 19  
Page 1 of 1

Purchased Water Summary

| Acct # | Service Area   | Company<br>Invoices &<br>Public<br>Staff<br>Invoices | Outside<br>Test year<br>Removed | Adjustment<br>for<br>New<br>Rates | Public Staff<br>Corrected<br>Invoices | Company<br>Ledger<br>Total | Correction<br>to ledger | Company's<br>Adjustment<br>for<br>Dec Accrual | Public Staff<br>Company<br>Total |
|--------|----------------|--|---------------------------------|-----------------------------------|---------------------------------------|----------------------------|-------------------------|---|----------------------------------|
| 104    | The Point      | 236,477.73   | 11,822.65                       |                                   | 224,555.08                            | 222,482.63                 |                         | (13,995.10)                                   | 236,477.73                       |
| 114    | Zemosa         | 84,331.10  |                                 |                                   | 84,331.10                             | 94,889.20                  | (13,458.11)             | 2,900.00                                      | 84,331.09                        |
| 125    | Willow Brook   | 3,029.04   |                                 |                                   | 3,029.04                              | 3,029.04                   |                         | -   | 3,029.04                         |
| 132    | Vander         | 55,033.81  | 7,405.66                        |                                   | 47,628.15                             | 52,361.04                  | (5,936.30)              | 8,609.07                                      | 55,033.81                        |
| 133    | White oak      | 54,555.08  |                                 | 3,081.00                          | 57,636.08                             | 55,055.08                  |                         | 500.00  | 54,555.08                        |
| 137    | Bent Creek     | 46,047.13  |                                 |                                   | 46,047.13                             | 45,947.15                  |                         | (100.00)                                      | 46,047.15                        |
| 141    | Whispering P   | 257,874.38   |                                 |                                   | 257,874.38                            | 280,640.77                 | (8,666.39)              | (14,100.00)                                   | 257,874.38                       |
| 152    | C. Forest      | 47,903.09  |                                 |                                   | 47,903.09                             | 48,630.59                  | (4,027.50)              | 3,300.00                                      | 47,903.09                        |
| 153    | Woodrun        | 74,533.54  |                                 |                                   | 74,533.54                             | 75,366.04                  | (9,432.50)              | 8,600.00                                      | 74,533.54                        |
| 154    | Kings Grant    | 4,309.56   |                                 |                                   | 4,309.56                              | 4,309.56                   |                         | -   | 4,309.56                         |
| 170    | Yorktown       | 6,117.64   | 1,515.27                        |                                   | 4,602.37                              | 3,317.65                   |                         | 2,800.00                                      | 6,117.65                         |
| 189    | Danby          | 147,875.16   |                                 |                                   | 147,875.16                            | 150,609.22                 | (12,334.06)             | 9,600.00                                      | 147,875.16                       |
| 214    | High Vista     | 57,016.95  |                                 | 1,428.50                          | 58,445.45                             | 55,316.95                  |                         | 1,700.00                                      | 57,016.95                        |
| 235    | Riverpoint     | 112,866.43   |                                 |                                   | 112,866.43                            | 118,166.43                 |                         | (5,300.00)                                    | 112,866.43                       |
| 100    | Carolina Trace | 155,800.51   |                                 |                                   | 155,800.51                            | 157,500.51                 |                         | (1,700.00)                                    | 155,800.51                       |
|        |                | 1,343,771.15   | 20,843.58                       | 4,509.50                          | 1,327,437.07                          | 1,367,621.86               |                         |   | 1,343,771.17                     |
|        |                |  | Water loss                      |                                   | (40,851.00)                           |                            |                         |   |                                  |
|        |                |  | Total Purchased Water           |                                   | 1,286,586.07                          |                            |                         |   |                                  |

OFFICIAL COPY  
Sep 19 2017

--/E

I/-

Carolina Water Service, Inc. of North Carolina  
Docket No. W-354, Sub 356  
Test year Ending December 31, 2016

Casselberry  
Exhibit No. 20  
Page 1 of 2

Sludge Hauling

CWSNC

| Bus.<br>Unit | Service Area                | Sub 336<br>2011/2012 | Sub 344<br>2014 | 2015   | Sub 356<br>2016 | 2014-16<br>Average | Adjusted<br>average |
|--------------|-----------------------------|----------------------|-----------------|--------|-----------------|--------------------|---------------------|
|              |                             | Amount               | Amount          | Amount | Amount          |                    |                     |
| 182101       | Kynwood Abington            | 15,056               | 15,712          | 24,436 | 14,436          | 18,195             | 18,195              |
| 102          | Brandybay Wine/Spooners Cr. | 10,558               | 13,500          | 14,560 | 9,030           | 12,370             | 12,370              |
| 107          | Sugar Mountain              | 14,455               | 14,560          | 10,640 | 15,120          | 13,440             | 13,440              |
| 110          | Saddlewood                  | 1,120                | 1,998           | 432    | 756             | 1,081              | 1,081               |
| 115          | Ashely Hills                | 18,273               | 44,013          | 43,446 | 48,313          | 45,591             | 45,591              |
| 117          | Corolla Light               | 18,525               | 13,500          | 17,450 | 7,390           | 12,780             | 12,780              |
| 120          | Hestron Park                | 6,570                | 3,780           | 4,320  | 3,090           | 3,730              | 3,730               |
| 123          | Hounds Ear                  | 2,240                | -               | -      | 2,800           | 933                | 933                 |
| 126          | Willowbrook                 | 5,736                | 5,856           | 9,150  | 9,516           | 8,174              | 1 9,333             |
| 130          | Wolf Laurel                 | 720                  | 920             | 3,920  | 3,000           | 2,613              | 2,613               |
| 136          | Kings Grant - Raleigh       | 4,312                | 2,186           | 5,876  | 1,830           | 3,297              | 3,297               |
| 138          | Bent Creek                  | 9,470                | 12,950          | 12,630 | 30,410          | 18,663             | 2 12,790            |
| 149          | Bear Paw Resort             | -                    | -               | -      | 200             | 67                 | 67                  |
| 155          | Kings Grant Charlotte       | 9,572                | -               | -      | 370             | 123                | 123                 |
| 160          | College Park                | 2,135                | 1,890           | -      | -               | 630                | 630                 |
| 173          | Monteray Shores             | 27,900               | 35,815          | 32,850 | 28,650          | 32,438             | 32,438              |
| 176          | Olde Point                  | 1,033                | 1,575           | 1,960  | 875             | 1,470              | 1,470               |
| 178          | Independent/Hemby           | 17,835               | 11,687          | 22,045 | 22,121          | 18,618             | 18,618              |
| 190          | Danby                       | 41,116               | 25,797          | 17,819 | 31,190          | 24,935             | 24,935              |
| 197          | Queens harbor               | 2,120                | 16,153          | 4,050  | 6,048           | 8,750              | 8,750               |
| 209          | Nags head                   | 22,000               | 28,800          | 40,065 | 46,120          | 38,662             | 3 43,093            |
| 217          | Regalwood                   | 20,391               | 9,720           | 10,260 | 9,180           | 9,720              | 9,720               |
| 218          | White Oak Estates           | 15,450               | 21,450          | 22,680 | 23,250          | 22,460             | 22,460              |
| 233          | Belvedere Middle Point      | 13,170               | 9,981           | 18,130 | 25,166          | 17,759             | 4 25,166            |
| 236          | Riverpointe                 | 4,345                | 9,552           | 3,348  | 5,805           | 6,268              | 6,268               |

OFFICIAL COPY

Sep 19 2017

Carolina Water Service, Inc. of North Carolina  
Docket No. W-354, Sub 356  
Test year Ending December 31, 2016

Casselberry  
Exhibit No. 20  
Page 2 of 2

Sludge Hauling

| Bus.<br>Unit | Service Area                    | Sub 336<br>2011/2012 | Sub 344<br>2014 | 2015    | Sub 356<br>2016 | 2014-16<br>Average | Adjusted<br>average |
|--------------|---------------------------------|----------------------|-----------------|---------|-----------------|--------------------|---------------------|
|              |                                 | Amount               | Amount          | Amount  | Amount          |                    |                     |
| 241          | Carolina Pines                  | 3,922                | 11,340          | 12,960  | 12,960          | 12,420             | 12,420              |
| 243          | Nero                            | 6,055                | 6,605           | 5,124   | 3,680           | 5,136              | 5,136               |
| 2247         | Ridges at Mountain Harbor (new) |                      | -               | -       | 555             | 185                | 185                 |
|              | Total                           | 295,179              | 322,453         | 340,185 | 354,877         | 340,490            | 347,514             |
| 181101       | Elk River                       | n/a                  | 5,315           | 10,080  | 10,018          | 8,471              | 5 10,049            |
| 183102       | Sapphire valley                 | n/a                  | 10,099          | 4,665   | 5,829           | 6,864              | 6,864               |
| 183109       | Fairfield Mountain              | n/a                  | 425             | -       | -               | 142                | 142                 |
| 187101       | Carolina Trace                  | n/a                  | 47,239          | 38,641  | 44,795          | 43,559             | 43,559              |
| 188101       | Transylvania                    | n/a                  | 14,980          | 15,050  | 19,600          | 16,537             | 16,537              |
|              | Total                           |                      | 78,038          | 68,436  | 80,243          | 75,572             | 77,150              |
|              | Total CWSNC                     |                      | 400,491         | 408,622 | 445,120         | 416,063            | 424,765             |

Bradfield Farms/Fairfield Harbor

| Bus.<br>Unit | Service Area     | Sub 336<br>2011/2012 | Sub 344<br>2014 | 2015   | Sub 356<br>2016 | 2014-16<br>Average | Adjusted<br>average |
|--------------|------------------|----------------------|-----------------|--------|-----------------|--------------------|---------------------|
|              |                  | Amount               | Amount          | Amount | Amount          |                    |                     |
| 191101       | Bradfield Farms  | n/a                  | 29,014          | 33,122 | 31,037          | 31,058             | 31,058              |
| 183108       | Fairfield harbor | n/a                  | 19,844          | 24,664 | 25,067          | 23,192             | 23,192              |
|              | Total BF/FH      |                      | 48,858          | 57,786 | 56,104          | 54,249             | 54,249              |

- 1 New treatment process two year average
- 2 Wasted sludge do to repairs
- 3 New treatment process two year average
- 4 New treatment process beginning in October 2015
- 5 Two year average

OFFICIAL COPY

Sep 19 2017

Carolina Water Service, Inc. of North Carolina  
Docket No. W-354, Sub 356  
For the 12 Months Ending December 31, 2016

Casselberry  
Exhibit No. 21  
Page 1 of 6

Public Staff's Recommended Rates

CWSNC Water

| Billing<br>Type                              | Usage                | Usage<br>Rate | Usage<br>Revenue | EOP<br>Customers | EOP<br>x 12 months | Base<br>Charge | Base Charge<br>Revenue | Total<br>Revenue  |
|--|----------------------|---------------|------------------|------------------|--------------------|----------------|------------------------|-------------------|
| Flat Residential<br>(based on 3,000 gallons) | -                    |               | -                | 515              | 6,180              | 47.45          | 293,241                | 293,241           |
| 5/8" Residential Metered                     | 957,565,889          | 7.70          | 7,373,257        | 20,151           | 241,812            | 24.44          | 5,909,885              | 13,283,143        |
| 3/4" Residential Metered                     | 1,484,382            | 7.70          | 11,430           | 41               | 492                | 24.44          | 12,024                 | 23,454            |
| 1" Residential Metered                       | 3,574,630            | 7.70          | 27,525           | 41               | 492                | 61.10          | 30,061                 | 57,586            |
| 1.5" Residential Metered                     | 5,902,582            | 7.70          | 45,450           | 34               | 408                | 122.20         | 49,858                 | 95,307            |
| 2" Residential Metered                       | 2,887,294            | 7.70          | 22,232           | 18               | 216                | 195.52         | 42,232                 | 64,464            |
| <b>Total Residential Metered</b>             | <b>971,414,777</b>   |               | <b>7,479,894</b> | <b>20,285</b>    | <b>243,420</b>     |                | <b>6,044,061</b>       | <b>13,523,955</b> |
| 5/8" Commercial Metered                      | 14,506,835           | 7.70          | 111,703          | 251              | 3,012              | 24.44          | 73,613                 | 185,316           |
| 1" Commercial Metered                        | 7,691,688            | 7.70          | 59,226           | 45               | 540                | 61.10          | 32,994                 | 92,220            |
| 1.5" Commercial Metered                      | 9,549,507            | 7.70          | 73,531           | 27               | 324                | 122.20         | 39,593                 | 113,124           |
| 2" Commercial Metered                        | 23,004,868           | 7.70          | 177,137          | 76               | 912                | 195.52         | 178,314                | 355,452           |
| 3" Commercial Metered                        | 11,483,797           | 7.70          | 88,425           | 7                | 84                 | 366.60         | 30,794                 | 119,220           |
| 4" Commercial Metered                        | 776,970              | 7.70          | 5,983            | 1                | 12                 | 611.00         | 7,332                  | 13,315            |
| 6" Commercial Metered                        | 2,112,670            | 7.70          | 16,268           | 2                | 24                 | 1,222.00       | 29,328                 | 45,596            |
| <b>Total Commercial Metered</b>              | <b>69,126,335</b>    |               | <b>532,273</b>   | <b>409</b>       | <b>4,908</b>       |                | <b>391,969</b>         | <b>924,241</b>    |
| <b>Total</b>                                 | <b>1,040,541,112</b> |               | <b>8,012,167</b> | <b>21,209</b>    | <b>254,508</b>     |                | <b>6,729,271</b>       | <b>14,741,437</b> |

OFFICIAL COPY

Sep 19 2017

11/11



Carolina Water Service, Inc. of North Carolina  
Docket No. W-354, Sub 356  
For the 12 Months Ending December 31, 2016

Casselberry  
Exhibit No. 21  
Page 2 of 6

## Public Staff's Recommended Rates

## CWSNC Water

## Treasure Cove

| Billing<br>Type          | Usage<br>Usage    | Usage<br>Rate | Usage<br>Revenue | EOP<br>Customers | EOP<br>x 12 months | Base<br>Charge | Base Charge<br>Revenue | Total<br>Revenue |
|--------------------------|-------------------|---------------|------------------|------------------|--------------------|----------------|------------------------|------------------|
| 5/8" Residential Metered | 18,681,303        | 3.36          | 62,769           | 284              | 3,408              | 11.44          | 38,988                 | 101,757          |
| 1" Residential Metered   | 138,140           | 3.36          | 464              | 1                | 12                 | 28.60          | 343                    | 807              |
| 2" Residential Metered   | 131,300           | 3.36          | 441              | 1                | 12                 | 91.52          | 1,098                  | 1,539            |
| <b>Total</b>             | <b>18,950,743</b> |               | <b>63,674</b>    | <b>286</b>       | <b>3,432</b>       |                | <b>40,429</b>          | <b>104,103</b>   |

## Elk River

| Billing<br>Type                  | Usage<br>Usage   | Usage<br>Rate | Usage<br>Revenue | EOP<br>Customers | EOP<br>x 12 months | Base<br>Charge | Base Charge<br>Revenue | Total<br>Revenue |
|----------------------------------|------------------|---------------|------------------|------------------|--------------------|----------------|------------------------|------------------|
| 5/8" Residential Metered         | 2,945            | 4.29          | 13               | 2                | 24                 | 19.52          | 468                    | 481              |
| 3/4" Residential Metered         | 5,429,230        | 4.29          | 23,291           | 257              | 3,084              | 19.52          | 60,200                 | 83,491           |
| 1" Residential Metered           | 1,066,399        | 4.29          | 4,575            | 31               | 372                | 48.79          | 18,150                 | 22,725           |
| <b>Total Residential Metered</b> | <b>6,498,574</b> |               | <b>27,879</b>    | <b>290</b>       | <b>3,480</b>       |                | <b>78,818</b>          | <b>106,697</b>   |
| 5/8" Commercial Metered          | 394,409          | 4.29          | 1,692            | 28               | 336                | 19.52          | 6,559                  | 8,251            |
| 1" Commercial Metered            | 128,140          | 4.29          | 550              | 1                | 12                 | 48.79          | 585                    | 1,135            |
| 2" Commercial Metered            | 337,164          | 4.29          | 1,446            | 4                | 48                 | 156.12         | 7,494                  | 8,940            |
| <b>Total Commercial Metered</b>  | <b>859,713</b>   |               | <b>3,688</b>     | <b>33</b>        | <b>396</b>         |                | <b>14,638</b>          | <b>18,326</b>    |
| <b>Total</b>                     | <b>7,358,287</b> |               | <b>31,567</b>    | <b>323</b>       | <b>3,876</b>       |                | <b>93,456</b>          | <b>125,023</b>   |

Carolina Water Service, Inc. of North Carolina  
Docket No. W-354, Sub 356  
For the 12 Months Ending December 31, 2016

Casselberry  
Exhibit No. 21  
Page 3 of 6

Public Staff's Recommended Rates

| Billing<br>Type           | Usage                | Usage<br>Rate | Usage<br>Revenue | EOP<br>Customers | EOP<br>x 12 months | Base<br>Charge | Base Charge<br>Revenue | Total<br>Revenue  |
|---------------------------|----------------------|---------------|------------------|------------------|--------------------|----------------|------------------------|-------------------|
| <b>Availability</b>       |                      |               |                  |                  |                    |                |                        |                   |
| Linville Ridge (monthly)  | -                    |               | -                | 63               | 756                | 12.35          | 9,337                  | 9,337             |
| Sapphire Valley (monthly) |                      |               |                  | 748              | 8,976              | 9.10           | 81,682                 | 81,682            |
| Connestee (monthly)       |                      |               |                  | 524              | 6,288              | 4.80           | 30,182                 | 30,182            |
| <b>Total Uniform</b>      | <b>1,066,850,142</b> |               | <b>8,107,408</b> | <b>23,153</b>    | <b>277,836</b>     |                | <b>6,984,356</b>       | <b>15,091,764</b> |

**Purchased water**  
**Carolina Trace**

| Billing<br>Type                  | Usage             | Usage<br>Rate | Usage<br>Revenue | EOP<br>Customers | EOP<br>x 12 months | Base<br>Charge | Base Charge<br>Revenue | Total<br>Revenue |
|----------------------------------|-------------------|---------------|------------------|------------------|--------------------|----------------|------------------------|------------------|
| 5/8" Residential Metered         | 58,012,009        | 2.21          | 128,207          | 1,573            | 18,876             | 24.44          | 461,329                | 589,536          |
| 1" Residential Metered           | 57,320            | 2.21          | 127              | 1                | 12                 | 61.10          | 733                    | 860              |
| 2" Residential Metered           | 29,800            | 2.21          | 66               | 2                | 24                 | 195.52         | 4,692                  | 4,758            |
| <b>Total Residential Metered</b> | <b>58,099,129</b> |               | <b>128,399</b>   | <b>1,576</b>     | <b>18,912</b>      |                | <b>466,755</b>         | <b>595,154</b>   |
| 5/8" Commercial Metered          | 1,096,820         | 2.21          | 2,424            | 24               | 288                | 24.44          | 7,039                  | 9,463            |
| 1" Commercial Metered            | 157,220           | 2.21          | 347              | 2                | 24                 | 61.10          | 1,466                  | 1,814            |
| 1.5" Commercial Metered          | 500,700           | 2.21          | 1,107            | 1                | 12                 | 122.20         | 1,466                  | 2,573            |
| 2" Commercial Metered            | 2,710,830         | 2.21          | 5,991            | 3                | 36                 | 195.52         | 7,039                  | 13,030           |
| <b>Total Commercial Metered</b>  | <b>4,465,570</b>  |               | <b>9,869</b>     | <b>30</b>        | <b>360</b>         |                | <b>17,010</b>          | <b>26,879</b>    |
| <b>Total</b>                     | <b>62,564,699</b> |               | <b>138,268</b>   | <b>1,606</b>     | <b>19,272</b>      |                | <b>483,765</b>         | <b>622,033</b>   |

Carolina Water Service, Inc. of North Carolina  
Docket No. W-354, Sub 356  
For the 12 Months Ending December 31, 2016

Casselberry  
Exhibit No. 21  
Page 4 of 6

## Public Staff's Recommended Rates

## Purchased water

## Carolina Forest

| Billing<br>Type                 | Usage            | Usage<br>Rate | Usage<br>Revenue | EOP<br>Customers | EOP<br>x 12 months | Base<br>Charge | Base Charge<br>Revenue | Total<br>Revenue |
|---------------------------------|------------------|---------------|------------------|------------------|--------------------|----------------|------------------------|------------------|
| 5/8" Residential Metered        | 5,727,411        | 3.19          | 18,270           | 197              | 2,364              | 24.44          | 57,776                 | 76,047           |
| 1" Residential Metered          | 84,710           | 3.19          | 270              | 1                | 12                 | 61.10          | 733                    | 1,003            |
| 5/8" Commercial Metered         | 29,462           | 3.19          | 94               | 4                | 48                 | 24.44          | 1,173                  | 1,267            |
| 1" Commercial Metered           | 161,610          | 3.19          | 516              | 1                | 12                 | 61.10          | 733                    | 1,249            |
| 1.5" Commercial Metered         | 67,123           | 3.19          | 214              | 1                | 12                 | 122.20         | 1,466                  | 1,681            |
| <b>Total</b>                    | <b>6,070,316</b> |               | <b>19,364</b>    | <b>204</b>       | <b>2,448</b>       |                | <b>61,882</b>          | <b>81,246</b>    |
| Carolina Forest (semi annually) |                  |               |                  | 734              | 1,468              | 24.65          | 36,186                 | 36,186           |
| <b>Total</b>                    | <b>6,070,316</b> |               | <b>19,364</b>    | <b>938</b>       | <b>3,916</b>       |                | <b>98,068</b>          | <b>117,433</b>   |

## High Vista Estates

|                          |                   |      |               |            |              |        |               |                |
|--------------------------|-------------------|------|---------------|------------|--------------|--------|---------------|----------------|
| 5/8" Residential Metered | 10,550,670        | 3.25 | 34,290        | 234        | 2,808        | 24.44  | 68,628        | 102,917        |
| 1" Residential Metered   | 61,500            | 3.25 | 200           | 1          | 12           | 61.10  | 733           | 933            |
| 5/8" Commercial Metered  | 11,000            | 3.25 | 36            | 1          | 12           | 24.44  | 293           | 329            |
| 2" Commercial Metered    | 926,700           | 3.25 | 3,012         | 2          | 24           | 195.52 | 4,692         | 7,704          |
| <b>Total</b>             | <b>11,549,870</b> |      | <b>37,537</b> | <b>238</b> | <b>2,856</b> |        | <b>74,346</b> | <b>111,884</b> |

## Riverpointe

|                          |                   |      |                |            |              |       |               |                |
|--------------------------|-------------------|------|----------------|------------|--------------|-------|---------------|----------------|
| 5/8" Residential Metered | 15,752,797        | 6.30 | 99,243         | 190        | 2,280        | 24.44 | 55,723        | 154,966        |
| 5/8" Commercial Metered  | 727,260           | 6.30 | 4,582          | 5          | 60           | 24.44 | 1,466         | 6,048          |
| <b>Total</b>             | <b>16,480,057</b> |      | <b>103,824</b> | <b>195</b> | <b>2,340</b> |       | <b>57,190</b> | <b>161,014</b> |

Carolina Water Service, Inc. of North Carolina  
Docket No. W-354, Sub 356  
For the 12 Months Ending December 31, 2016

Casselberry  
Exhibit No. 21  
Page 5 of 6

## Public Staff's Recommended Rates

## Purchased Water

| Billing<br>Type   | Usage             | Usage<br>Rate | Usage<br>Revenue | EOP<br>Customers | EOP<br>x.12 months | Base<br>Charge | Base Charge<br>Revenue | Total<br>Revenue |
|---|-------------------|---------------|------------------|------------------|--------------------|----------------|------------------------|------------------|
| <b>Whispering Pines</b>   |                   |               |                  |                  |                    |                |                        |                  |
| 5/8" Residential Metered  | 85,279,733        | 2.23          | 190,174          | 1,519            | 18,228             | 24.44          | 445,492                | 635,666          |
| 1" Residential Metered  | 1,208,810         | 2.23          | 2,696            | 15               | 180                | 61.10          | 10,998                 | 13,694           |
| 5/8" Commercial Metered   | 993,770           | 2.23          | 2,216            | 28               | 336                | 24.44          | 8,212                  | 10,428           |
| 1" Commercial Metered   | 2,181,248         | 2.23          | 4,864            | 5                | 60                 | 61.10          | 3,666                  | 8,530            |
| 1.5" Commercial Metered   | 621,389           | 2.23          | 1,386            | 5                | 60                 | 122.20         | 7,332                  | 8,718            |
| 2" Commercial Metered   | 419,900           | 2.23          | 936              | 1                | 12                 | 195.52         | 2,346                  | 3,283            |
| 4" Commercial Metered   | 500               | 2.23          | 1                | 1                | 12                 | 611.00         | 7,332                  | 7,333            |
| <b>Total</b>  | <b>90,705,350</b> |               | <b>202,273</b>   | <b>1,574</b>     | <b>18,888</b>      |                | <b>485,378</b>         | <b>687,651</b>   |
| <b>White Oak Planation/Lee<br/>Forest/Winston<br/>Planation/Winston Point</b> |                   |               |                  |                  |                    |                |                        |                  |
| 5/8" Residential Metered  | 25,363,484        | 2.28          | 57,829           | 507              | 6,084              | 24.44          | 148,693                | 206,522          |
| 1.5" Commercial Metered   | 184,500           | 2.28          | 421              | 1                | 12                 | 122.20         | 1,466                  | 1,887            |
| <b>Total</b>  | <b>25,547,984</b> |               | <b>58,249</b>    | <b>508</b>       | <b>6,096</b>       |                | <b>150,159</b>         | <b>208,409</b>   |
| <b>Woodrun</b>  |                   |               |                  |                  |                    |                |                        |                  |
| 5/8" Residential Metered  | 17,048,700        | 3.19          | 54,385           | 463              | 5,556              | 24.44          | 135,789                | 190,174          |
| 5/8" Commercial Metered   | 122,120           | 3.19          | 390              | 4                | 48                 | 24.44          | 1,173                  | 1,563            |
| 1" Commercial Metered   | 388,136           | 3.19          | 1,238            | 1                | 12                 | 61.10          | 733                    | 1,971            |
| <b>Total</b>  | <b>17,558,956</b> |               | <b>56,013</b>    | <b>468</b>       | <b>5,616</b>       |                | <b>137,695</b>         | <b>193,708</b>   |
| Woodrun (semi annually)   |                   |               |                  | 693              | 1,386              | 24.65          | 34,165                 | 34,165           |
| <b>Total</b>  | <b>17,558,956</b> |               | <b>56,013</b>    | <b>1,161</b>     | <b>7,002</b>       |                | <b>171,860</b>         | <b>227,873</b>   |

Carolina Water Service, Inc. of North Carolina  
Docket No. W-354, Sub 356  
For the 12 Months Ending December 31, 2016

Casselberry  
Exhibit No. 21  
Page 6 of 6

Public Staff's Recommended Rates

Purchased Water

| Billing<br>Type          | Usage                | Usage<br>Rate | Usage<br>Revenue | EOP<br>Customers | EOP<br>x 12 months | Base<br>Charge | Base Charge<br>Revenue | Total<br>Revenue  |
|--------------------------|----------------------|---------------|------------------|------------------|--------------------|----------------|------------------------|-------------------|
| <b>Yorktown</b>          |                      |               |                  |                  |                    |                |                        |                   |
| 5/8" Residential Metered | 3,755,800            | 5.01          | 18,817           | 107              | 1,284              | 24.44          | 31,381                 | 50,198            |
| <b>Zemosa Acres</b>      |                      |               |                  |                  |                    |                |                        |                   |
| 5/8" Residential Metered | 12,124,948           | 5.27          | 63,898           | 239              | 2,868              | 24.44          | 70,094                 | 133,992           |
| 1" Residential Metered   | 66,819               | 5.27          | 352              | 2                | 24                 | 61.10          | 1,466                  | 1,819             |
| 1" Commercial Metered    | 90,807               | 5.27          | 479              | 1                | 12                 | 61.10          | 733                    | 1,212             |
| <b>Total</b>             | <b>12,282,574</b>    |               | <b>64,729</b>    | <b>242</b>       | <b>2,904</b>       |                | <b>72,294</b>          | <b>137,023</b>    |
| <b>TOTAL</b>             | <b>1,313,365,748</b> |               | <b>8,806,483</b> | <b>29,722</b>    | <b>342,394</b>     |                | <b>8,608,798</b>       | <b>17,415,281</b> |

Carolina Water Service, Inc. of North Carolina  
Docket No. W-354, Sub 356  
For the 12 Months Ending December 31, 2016

Casselberry  
Exhibit No. 22  
Page 1 of 5

### Public Staff's Recommended Rates

#### CWSNC Sewer

| Billing Type  | Usage       | Usage Rate | Usage Revenue | EOP Customers | EOP x 12 months | Base Charge | Base Charge Revenue | Total Revenue |
|---|-------------|------------|---------------|---------------|-----------------|-------------|---------------------|---------------|
| Residential Flat, Sewer<br>(based on 3,417 gallons) |             | -          | -             | 3,088         | 37,056          | 56.57       | 2,096,258           | 2,096,258     |
| 5/8" Residential Metered                            | 376,524,793 | 3.11       | 1,170,992     | 9,343         | 112,116         | 45.97       | 5,153,973           | 6,324,965     |
| 1" Res Metered                                      | 759,522     | 3.11       | 2,362         | 16            | 192             | 45.97       | 8,826               | 11,188        |
| 1.5" Res Metered                                    | 29,800      | 3.11       | 93            | -             | -               | 45.97       | -                   | 93            |
| 2" Res Metered                                      | 42,700      | 3.11       | 133           | 3             | 36              | 45.97       | 1,655               | 1,788         |
| Commercial Flat Rate                                |             | -          | -             | 41            | 492             | 56.57       | 27,832              | 27,832        |
| 5/8" Commercial Metered                             | 27,519,253  | 3.11       | 85,685        | 433           | 5,196           | 45.97       | 238,860             | 324,445       |
| 1" Commercial Metered                               | 6,448,696   | 3.11       | 20,055        | 15            | 180             | 114.93      | 20,687              | 40,743        |
| 1.5" Commercial Metered                             | 5,873,879   | 3.11       | 18,268        | 14            | 168             | 229.85      | 38,615              | 56,883        |
| 2" Commercial Metered                               | 19,825,442  | 3.11       | 61,657        | 54            | 648             | 367.76      | 238,308             | 299,966       |
| 3" Commercial Metered                               | 10,532,497  | 3.11       | 32,756        | 5             | 60              | 689.55      | 41,373              | 74,129        |
| 4" Commercial Metered                               | 776,970     | 3.11       | 2,416         | 1             | 12              | 1,149.25    | 13,791              | 16,207        |
| 6" Commercial Metered                               | 3,792,952   | 3.11       | 11,796        | 2             | 24              | 2,298.50    | 55,164              | 66,960        |
| Total   | 452,126,504 |            | 1,406,113     | 13,015        | 156,180         |             | 7,935,343           | 9,341,456     |
| Regalwood   | -           |            | -             | 357           | 4,284           | 56.57       | 242,346             | 242,346       |
| White Oaks  | -           |            | -             | 688           | 8,256           | 56.57       | 467,042             | 467,042       |
| 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 356  
For the 12 Months Ending December 31, 2016

Casselberry  
Exhibit No. 22  
Page 2 of 5

### Public Staff's Recommended Rates

#### CWSNC Sewer

| Billing<br>Type | Usage       | Usage<br>Rate | Usage<br>Revenue | EOP<br>Customers | EOP<br>x 12 months | Base<br>Charge | Base Charge<br>Revenue | Total<br>Revenue |
|-----------------|-------------|---------------|------------------|------------------|--------------------|----------------|------------------------|------------------|
| Availability    |             |               |                  |                  |                    |                |                        |                  |
| Sapphire Valley |             |               |                  | 89               | 1,068              | 8.30           | 8,864                  | 8,864            |
| Conestee        |             |               |                  | 259              | 3,108              | 4.70           | 14,608                 | 14,608           |
| Total           | 452,126,504 |               | 1,406,113        | 14,410           | 172,920            |                | 8,692,083              | 10,098,196       |

| Billing<br>Type | Usage      | Usage<br>Rate | Usage<br>Revenue | EOP<br>Customers | EOP<br>x 12 months | Base<br>Charge | Base Charge<br>Revenue | Total<br>Revenue |
|-----------------|------------|---------------|------------------|------------------|--------------------|----------------|------------------------|------------------|
| Mount Carmel    | 16,060,320 | 5.88          | 94,435           | 387              | 4,644              | 43.52          | 202,107                | 296,542          |

| Billing<br>Type              | Usage     | Usage<br>Rate | Usage<br>Revenue | EOP<br>Customers | EOP<br>x 12 months | Base<br>Charge | Base Charge<br>Revenue | Total<br>Revenue |
|------------------------------|-----------|---------------|------------------|------------------|--------------------|----------------|------------------------|------------------|
| College Park                 |           |               |                  |                  |                    |                |                        |                  |
| Residential Flat, Sewer only | -         | -             | -                | 1                | 12                 | 58.57          | 679                    | 679              |
| 5/8" Residential Metered     | 2,355,400 | 5.70          | 13,426           | 49               | 588                | 36.75          | 21,609                 | 35,035           |
| Total                        | 2,355,400 |               | 13,426           | 50               | 600                |                | 22,288                 | 35,714           |

Carolina Water Service, Inc. of North Carolina  
Docket No. W-354, Sub 356  
For the 12 Months Ending December 31, 2016

Casselberry  
Exhibit No. 22  
Page 3 of 5

### Public Staff's Recommended Rates

| CWSNC Sewer              |                  |       |               |            |              |        |               |                |
|--------------------------|------------------|-------|---------------|------------|--------------|--------|---------------|----------------|
| Billing                  |                  | Usage | Usage         | EOP        | EOP          | Base   | Base Charge   | Total          |
| Type                     | Usage            | Rate  | Revenue       | Customers  | x 12 months  | Charge | Revenue       | Revenue        |
| <b>Kings Grant</b>       |                  |       |               |            |              |        |               |                |
| 5/8" Residential Metered | 7,969,580        | 3.80  | 30,284        | 177        | 2,124        | 36.75  | 78,057        | 108,341        |
| 1" Res Metered           | 284,918          | 3.80  | 1,083         | 1          | 12           | 36.75  | 441           | 1,524          |
| <b>Total</b>             | <b>8,254,498</b> |       | <b>31,367</b> | <b>178</b> | <b>2,136</b> |        | <b>78,498</b> | <b>109,865</b> |

| Billing   |            | Usage | Usage   | EOP       | EOP         | Base   | Base Charge | Total   |
|---|------------|-------|---------|-----------|-------------|--------|-------------|---------|
| Type  | Usage      | Rate  | Revenue | Customers | x 12 months | Charge | Revenue     | Revenue |
| <b>White Oak Plantation/Lee Forest/Winston Pointe</b> |            |       |         |           |             |        |             |         |
| 5/8" Residential Metered                              | 20,139,604 | 4.82  | 97,073  | 417       | 5,004       | 36.75  | 183,897     | 280,970 |

### Fairfield Mountain

| Billing                      |       | Usage | Usage   | EOP       | EOP         | Base   | Base Charge | Total   |
|------------------------------|-------|-------|---------|-----------|-------------|--------|-------------|---------|
| Type                         | Usage | Rate  | Revenue | Customers | x 12 months | Charge | Revenue     | Revenue |
| 5/8" Res. Collection/Treatm. |       |       | -       | 398       | 4,776       | 106.25 | 507,450     | 507,450 |
| 1" Res Collection/Treatm.    |       |       | -       | 12        | 144         | 106.25 | 15,300      | 15,300  |
| Residential Collection       |       |       | -       | 410       | 4,920       |        | 522,750     | 522,750 |



Carolina Water Service, Inc. of North Carolina  
Docket No. W-354, Sub 356  
For the 12 Months Ending December 31, 2016

Casselberry  
Exhibit No. 22  
Page 4 of 5

### Public Staff's Recommended Rates

#### CWSNC Sewer Fairfield Mountain

| Billing<br>Type        | Usage            | Usage<br>Rate | Usage<br>Revenue | EOP<br>Customers | EOP<br>x 12 months | Base<br>Charge | Base Charge<br>Revenue | Total<br>Revenue |
|------------------------|------------------|---------------|------------------|------------------|--------------------|----------------|------------------------|------------------|
| Small Commercial       | 1,297,790        | 13.93         | 18,078.21        | 7                | 84                 | 78.50          | 6,594                  | 24,672           |
| Medium Commercial      | 2,230,760        | 13.93         | 31,074.49        | 11               | 132                | 139.50         | 18,414                 | 49,488           |
| Large Commercial       | 405,620          | 13.93         | 5,650.29         | 3                | 36                 | 219.50         | 7,902                  | 13,552           |
| Nonresidential Metered | 3,934,170.00     |               | 54,802.99        | 21               | 252                |                | 32,910.00              | 87,713           |
| <b>Total</b>           | <b>3,934,170</b> |               | <b>54,803</b>    | <b>419</b>       | <b>5,028</b>       |                | <b>540,360</b>         | <b>595,163</b>   |

#### CL/MS

|                        |                   |      |                |            |               |        |                |                  |
|------------------------|-------------------|------|----------------|------------|---------------|--------|----------------|------------------|
| 5/8" Residential Sewer | 41,519,782        | 6.62 | 274,861        | 775        | 9,300         | 52.06  | 484,158        | 759,019          |
| 1" Residential Sewer   | 9,651,480         | 6.62 | 63,893         | 91         | 1,092         | 130.15 | 142,124        | 206,017          |
| 5/8" Commercial Sewer  | 6,522,778         | 6.62 | 43,181         | 71         | 852           | 52.06  | 44,355         | 87,536           |
| 1" Commercial Sewer    | 3,035,120         | 6.62 | 20,092         | 18         | 216           | 130.15 | 28,112         | 48,205           |
| 1.5" Commercial Sewer  | 1,258,800         | 6.62 | 8,333          | 3          | 36            | 260.31 | 9,371          | 17,704           |
| 2" Commercial Sewer    | 1,935,400         | 6.62 | 12,812         | 3          | 36            | 416.49 | 14,994         | 27,806           |
| 3" Commercial Sewer    | 126,000           | 6.62 | 834            | 1          | 12            | 780.92 | 9,371          | 10,205           |
| <b>Total</b>           | <b>64,049,360</b> |      | <b>424,007</b> | <b>962</b> | <b>11,544</b> |        | <b>732,485</b> | <b>1,156,492</b> |

Carolina Water Service, Inc. of North Carolina  
Docket No. W-354, Sub 356  
For the 12 Months Ending December 31, 2016

Casselberry  
Exhibit No. 22  
Page 5 of 5

Public Staff's Recommended Rates

CWSNC Sewer

Elk River

| Billing<br>Type            | Usage       | Usage<br>Rate | Usage<br>Revenue | EOP<br>Customers | EOP<br>x 12 months | Base<br>Charge | Base Charge<br>Revenue | Total<br>Revenue |
|----------------------------|-------------|---------------|------------------|------------------|--------------------|----------------|------------------------|------------------|
| 5/8" Residential Metered   | 124         | 3.00          | 0                | 1                | 12                 | 23.38          | 281                    | 281              |
| 1" Res Residential Metered | 11,439      | 3.00          | 34               | 1                | 12                 | 58.45          | 701                    | 736              |
| Total Residential Metered  | 11,563      |               | 34               | 2                | 24                 |                | 982                    | 1,017            |
| 5/8" Commercial Metered    | 1,373,541   | 3.00          | 4,121            | 102              | 1,224              | 23.38          | 28,617                 | 32,738           |
| 1" Commercial Metered      | 240,599     | 3.00          | 722              | 21               | 252                | 58.45          | 14,729                 | 15,451           |
| 2" Commercial Metered      | 238,005     | 3.00          | 714              | 2                | 24                 | 187.05         | 4,489                  | 5,203            |
| Total Commercial Metered   | 1,852,145   |               | 5,556            | 125              | 1,500              |                | 47,836                 | 53,392           |
| Total                      | 1,863,708   |               | 5,590            | 127              | 1,524              |                | 48,818                 | 54,409           |
| Total                      | 568,783,564 |               | 2,126,814        | 16,950           | 203,400            |                | 10,500,535             | 12,627,350       |

OFFICIAL COPY

Sep 19 2017

Carolina Water Service, Inc. of North Carolina  
Docket No. W-354, Sub 356  
For the 12 Months December 31, 2016

Casselberry  
Exhibit No. 23  
Page 1 of 1

## Public Staff's Recommended Rates

## WATER

## Fairfield Harbour and Bradfield Farms Consolidated

| Billing<br>Type           | Usage<br>Usage | Usage<br>Rate | Usage<br>Revenue | EOP<br>Customers | EOP<br>x 12 months | Base<br>Charge | Base Charge<br>Revenue | Total<br>Revenue |
|---------------------------|----------------|---------------|------------------|------------------|--------------------|----------------|------------------------|------------------|
| 5/8" Residential Metered  | 147,909,112    | 3.36          | 496,975          | 2,888            | 34,656             | 11.44          | 396,465                | 893,439          |
| 1" Residential Metered    | 1,136,341      | 3.36          | 3,818            | 7                | 84                 | 28.60          | 2,402                  | 6,221            |
| Total Residential Metered | 149,045,453    |               | 500,793          | 2,895            | 34,740             |                | 398,867                | 899,660          |
| 5/8" Commercial Metered   | 1,343,824      | 3.36          | 4,515            | 22               | 264                | 11.44          | 3,020                  | 7,535            |
| 1" Commercial Metered     | 37,050         | 3.36          | 124              | 1                | 12                 | 28.60          | 343                    | 468              |
| 1.5" Commercial Metered   | 493,700        | 3.36          | 1,659            | 2                | 24                 | 57.20          | 1,373                  | 3,032            |
| 2" Commercial Metered     | 713,200        | 3.36          | 2,396            | 3                | 36                 | 91.52          | 3,295                  | 5,691            |
| Total Commercial Metered  | 2,587,774      |               | 8,695            | 28               | 336                |                | 8,031                  | 16,726           |
| Availability              |                |               |                  | 874              | 10,488             | 3.28           | 34,401                 | 34,401           |
| Total                     | 151,633,227    |               | 509,488          | 3,797            | 45,564             |                | 441,299                | 950,786          |

11/17

Carolina Water Service, Inc. of North Carolina  
Docket No. W-354, Sub 356  
For the 12 Months Ending December 31, 2016

Casselberry  
Exhibit No. 24  
Page 1 of 1

Public Staff's Recommended Rates

Sewer

Fairfield Harbour and Bradfield Farms Consolidated

| Billing<br>Type           | Usage     | Usage<br>Rate | Usage<br>Revenue | EOP<br>Customers | EOP<br>x 12 months | Base<br>Charge | Base Charge<br>Revenue | Total<br>Revenue |
|---------------------------|-----------|---------------|------------------|------------------|--------------------|----------------|------------------------|------------------|
| 5/8" Residential Metered  |           |               | -                | 2,873            | 34,476             | 41.40          | 1,427,306              | 1,427,306        |
| 1" Residential Metered    |           |               | -                | 3                | 36                 | 41.40          | 1,490                  | 1,490            |
| Bulk Sewer                |           |               |                  | 156              | 1,872              | 40.40          | 75,629                 | 75,629           |
| Apartments                |           |               |                  | 379              | 4,548              | 40.40          | 183,739                | 183,739          |
| Total Residential Metered | -         |               | -                | 3,411            | 40,932             |                | 1,688,165              | 1,688,165        |
| 5/8" Commercial Metered   | 1,102,710 | 6.20          | 6,837            | 13               | 156                | 11.12          | 1,735                  | 8,572            |
| 1.5" Commercial Metered   | 493,700   | 6.20          | 3,061            | 2                | 24                 | 55.60          | 1,334                  | 4,395            |
| 2" Commercial Metered     | 528,800   | 6.20          | 3,279            | 1                | 12                 | 88.96          | 1,068                  | 4,346            |
| Total Commercial Metered  | 2,125,210 |               | 13,176           | 16               | 192                |                | 4,137                  | 17,313           |
| Total                     | 2,125,210 |               | 13,176           | 3,427            | 41,124             |                | 1,692,301              | 1,705,478        |
| Availability              |           |               |                  | 876              | 10,512             | 2.65           | 27,857                 | 27,857           |
| Total                     | 2,125,210 |               | 13,176           | 4,303            | 51,636             |                | 1,720,158              | 1,733,335        |

OFFICIAL COPY

Sep 19 2017

--17

I/---

Carolina Water Service Inc., of North Carolina  
Docket No. W-354, Sub 356  
For the 12 Months Ending December 31, 2016

Casselberry  
Exhibit No. 25  
Page 1 of 10

OFFICIAL COPY

Sep 19 2017

**COMPANY'S PRESENT AND PROPOSED RATES AND THE PUBLIC STAFF'S  
RECOMMENDED WATER AND SEWER RATES**

**WATER RATES AND CHARGES**

**UNIFORM WATER SERVICE:**

**MONTHLY METERED SERVICE:** (Residential and Commercial)

|   | <u>Existing</u> | <u>Proposed</u> | <u>Public Staff's<br/>Recommend</u> |
|---|-----------------|-----------------|-------------------------------------|
| Base Facilities Charges (zero usage)                            |                 |                 |                                     |
| < 1" meter  | \$ 22.40        | \$ 26.95        | \$ 24.44                            |
| 1" meter  | \$ 56.01        | \$ 67.38        | \$ 61.10                            |
| 1-1/2" meter  | \$ 112.02       | \$ 134.75       | \$ 122.20                           |
| 2" meter  | \$ 179.23       | \$ 215.60       | \$ 195.52                           |
| 3" meter  | \$ 336.06       | \$ 404.25       | \$ 366.60                           |
| 4" meter  | \$ 560.10       | \$ 673.75       | \$ 611.00                           |
| 6" meter  | \$ 1,120.19     | \$ 1,347.50     | \$ 1,222.00                         |
| <b><u>AVERAGE RESIDENTIAL BILL</u></b> (based on 3,980 gallons) | \$ 47.87        | \$ 57.60        | \$ 55.09                            |

**USAGE CHARGE:**

|                     |  |  |  |  |
|---------------------|--|--|--|--|
| A.                  | Treated Water/1,000 gallons  | \$ 6.40                                | \$ 7.70                                | \$ 7.70                                |
| B.                  | Untreated Water/1,000 gallons<br>(Brandywine Bay Irrigation Water) | \$ 4.11                                | \$ 4.11                                | \$ 4.11                                |
| C.                  | Purchased Water for Resale   |  |  |  |
| <u>Service Area</u> | <u>Bylk Provider</u>   | <u>Usage Charge/<br/>1,000 gallons</u> | <u>Usage charge<br/>/1,000 gallons</u> | <u>Usage charge<br/>/1,000 gallons</u> |
| Carolina Forest     | Montgomery County  | \$ 3.19                                | \$ 3.19                                | \$ 3.19                                |
| High Vista Est.     | City of Hendersonville   | \$ 3.25                                | \$ 3.25                                | \$ 3.25                                |
| Riverpointe         | Charlotte Water  | \$ 6.30                                | \$ 6.30                                | \$ 6.30                                |
| Whispering Pines    | Town of Southern Pines   | \$ 2.23                                | \$ 2.23                                | \$ 2.23                                |
| White Oak Plt./     |  |  |  |  |
| Lee Forest          | Johnston County  | \$ 3.25                                | \$ 3.25                                | \$ 2.28                                |
| Winston Plt.        | Johnston County  | \$ 3.25                                | \$ 3.25                                | \$ 2.28                                |
| Winston Point       | Johnston County  | \$ 3.25                                | \$ 3.25                                | \$ 2.28                                |
| Woodrun             | Montgomery County  | \$ 3.19                                | \$ 3.19                                | \$ 3.19                                |
| Yorktown            | City of Winston-Salem  | \$ 5.01                                | \$ 5.01                                | \$ 5.01                                |
| Zemosa Acres        | City of Concord  | \$ 5.27                                | \$ 5.27                                | \$ 5.27                                |

|   |    |          |    |
|---|----|----------|----|
| <b><u>MONTHLY FLAT RATE SERVICE:</u></b><br>(per residence or single family equivalent) | \$ | \$ 50.17 | \$ |
|---|----|----------|----|

|  |          |  |          |
|--|----------|--|----------|
| <b><u>MONTHLY FLAT RATE SERVICE:</u></b> | \$ 41.60 |  | \$ 47.45 |
|--|----------|--|----------|

**AVAILABILITY RATES (semi-annual):**

|   |          |          |          |
|---|----------|----------|----------|
| Applicable only to property owners in Carolina Forest<br>and Woodrun Subdivision in Montgomery County | \$ 24.64 | \$ 24.64 | \$ 24.65 |
|---|----------|----------|----------|

**AVAILABILITY RATES (monthly):**

|   |          |          |          |
|---|----------|----------|----------|
| Applicable only to property owners in Linville Ridge<br>Subdivision | \$ 12.32 | \$ 12.32 | \$ 12.35 |
|---|----------|----------|----------|

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

Casselberry  
Exhibit No. 25  
Page 2 of 10

FORMER CLEARWATER SYSTEMS:

MONTHLY METERED SERVICE:

|                                      | <u>Existing</u> | <u>Proposed</u> | <u>Public Staff's<br/>Recommend</u> |
|--------------------------------------|-----------------|-----------------|-------------------------------------|
| Base Facilities Charges (zero usage) |                 |                 |                                     |
| 5/8" meter                           | \$ 16.27        |                 |                                     |
| 1" meter                             | \$ 40.67        |                 |                                     |
| 1-1/2" meter                         | \$ 81.34        |                 |                                     |
| 2" meter                             | \$ 130.14       |                 |                                     |
| 3" meter                             | \$ 244.07       |                 |                                     |
| 4" meter                             | \$ 406.76       |                 |                                     |
| 6" meter                             | \$ 813.37       |                 |                                     |
| Usage Charge, per 1,000 gallons      | \$ 4.50         |                 |                                     |

The Public Staff recommends CWSNC's Uniform Rates as shown below.

MONTHLY METERED SERVICE: (Residential and Commercial) CWSNC's Uniform Rates

|  | <u>Existing</u> | <u>Proposed</u> | <u>Public Staff's<br/>Recommend</u> |
|--|-----------------|-----------------|-------------------------------------|
| Base Facilities Charges (zero usage)   |                 |                 |                                     |
| < 1" meter   |                 | \$ 26.95        | \$ 24.44                            |
| 1" meter   |                 | \$ 67.38        | \$ 61.10                            |
| 1-1/2" meter   |                 | \$ 134.75       | \$ 122.20                           |
| 2" meter   |                 | \$ 215.60       | \$ 195.52                           |
| 3" meter   |                 | \$ 404.25       | \$ 366.60                           |
| 4" meter   |                 | \$ 673.75       | \$ 611.00                           |
| 6" meter   |                 | \$1,347.50      | \$1,222.00                          |
| Usage Charge, per 1,000 gallons<br>Treated water                                 |                 | \$ 7.70         | \$ 7.70                             |
| <u>AVERAGE RESIDENTIAL BILL</u> (based on 3,980 gallons)                         | \$ 34.18        | \$ 57.60        | \$ 55.09                            |
| <u>MONTHLY FLAT RATE SERVICE:</u><br>(per residence or single family equivalent) | \$              | \$ 50.17        | \$                                  |
| <u>MONTHLY FLAT RATE SERVICE:</u>  | \$ 41.60        |                 | \$ 47.45                            |
| Management Fee, Covington Crossing (Phases 1 & 2)                                | \$ 100.00       | \$ 100.00       | \$ 100.00                           |

TREASURE COVE, REGISTER PLACE ESTATES, NORTH HILLS  
AND GLEN ARBOR/NORTH BEND SUBDIVISION

|                                     | <u>Existing</u> | <u>Proposed</u> | <u>Public Staff's<br/>Recommend</u> |
|-------------------------------------|-----------------|-----------------|-------------------------------------|
| <u>Monthly Metered Water Rates:</u> |                 |                 |                                     |
| Base Charge, zero usage             | \$ 14.50        |                 |                                     |
| Usage charge, per 1,000 gallons     | \$ 1.90         |                 |                                     |

The Public Staff recommends the same rates as the recommended rates for Bradfield Farms and Fairfield Harbor as shown below.

MONTHLY METERED SERVICE: (Residential and Commercial)

|  | <u>Existing</u> | <u>Proposed</u> | <u>Public Staff's<br/>Recommend</u> |
|--|-----------------|-----------------|-------------------------------------|
| Base Facilities Charges (zero usage)                     |                 |                 |                                     |
| < 1" meter   |                 | \$ 26.95        | \$ 11.44                            |
| 1" meter   |                 | \$ 67.38        | \$ 28.60                            |
| 1-1/2" meter   |                 | \$ 134.75       | \$ 57.20                            |
| 2" meter   |                 | \$ 215.60       | \$ 91.52                            |
| 3" meter   |                 | \$ 404.25       | \$                                  |
| 4" meter   |                 | \$ 673.75       | \$                                  |
| 6" meter   |                 | \$1,347.50      | \$                                  |
| Usage Charge, per 1,000 gallons                          |                 | \$ 7.70         | \$ 3.36                             |
| <u>AVERAGE RESIDENTIAL BILL</u> (based on 3,980 gallons) | \$ 22.06        | \$ 57.60        | \$ 24.81                            |

OFFICIAL COPY

Sep 19 2017

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

Casselberry  
Exhibit No. 25  
Page 3 of 10

**FOREST HILLS SUBDIVISION**

**Monthly Metered Water Service:**

|                                      | <u>Existing</u> | <u>Proposed</u> | <u>Public Staff's<br/>Recommend</u> |
|--------------------------------------|-----------------|-----------------|-------------------------------------|
| Base Facilities Charges (zero usage) |                 |                 |                                     |
| Residential                          | \$ 22.43        |                 |                                     |
| Commercial and Other:                |                 |                 |                                     |
| 5/8" meter                           | \$ 22.43        |                 |                                     |
| 3/4" meter                           | \$ 33.66        |                 |                                     |
| 1" meter                             | \$ 56.08        |                 |                                     |
| 1-1/2" meter                         | \$ 112.16       |                 |                                     |
| 2" meter                             | \$ 179.46       |                 |                                     |
| 3" meter                             | \$ 336.49       |                 |                                     |
| 4" meter                             | \$ 560.81       |                 |                                     |
| 6" meter                             | \$1,121.63      |                 |                                     |
| Usage charge, per 1,000 gallons      | \$ 5.23         |                 |                                     |

The Public Staff recommends CWSNC's Uniform Rates as shown below.

**MONTHLY METERED SERVICE:** (Residential and Commercial) CWSNC's Uniform Rates

|   | <u>Existing</u> | <u>Proposed</u> | <u>Public Staff's<br/>Recommend</u> |
|---|-----------------|-----------------|-------------------------------------|
| Base Facilities Charges (zero usage)                              |                 |                 |                                     |
| < 1" meter  | \$              | \$ 26.95        | \$ 24.44                            |
| 1" meter  | \$              | \$ 67.38        | \$ 61.10                            |
| 1-1/2" meter  | \$              | \$ 134.75       | \$ 122.20                           |
| 2" meter  | \$              | \$ 215.60       | \$ 195.52                           |
| 3" meter  | \$              | \$ 404.25       | \$ 366.60                           |
| 4" meter  | \$              | \$ 673.75       | \$ 611.00                           |
| 6" meter  | \$              | \$1,347.50      | \$1,222.00                          |
| Usage Charge, per 1,000 gallons<br>Treated water                  |                 | \$ 7.70         | \$ 7.70                             |
| <b><u>AVERAGE RESIDENTIAL BILL</u></b> , (based on 3,980 gallons) | \$ 43.25        | \$ 57.60        | \$ 55.09                            |

**FAIRFIELD MOUNTAIN/APPLE VALLEY (a.k.a. RUMBLING BALD) SERVICE AREA, HIGHLAND SHORES  
SUBDIVISION AND LAUREL MOUNTAIN ESTATES**

**Monthly Metered Water Service:**

|                                      | <u>Existing</u> | <u>Proposed</u> | <u>Public Staff's<br/>Recommend</u> |
|--------------------------------------|-----------------|-----------------|-------------------------------------|
| Base Facilities Charges (zero usage) |                 |                 |                                     |
| Residential                          | \$ 19.23        |                 |                                     |
| Commercial and Other:                |                 |                 |                                     |
| 5/8" meter                           | \$ 19.23        |                 |                                     |
| 3/4" meter                           | \$ 28.84        |                 |                                     |
| 1" meter                             | \$ 48.07        |                 |                                     |
| 1-1/2" meter                         | \$ 96.14        |                 |                                     |
| 2" meter                             | \$ 153.83       |                 |                                     |
| 3" meter                             | \$ 288.42       |                 |                                     |
| 4" meter                             | \$ 480.70       |                 |                                     |
| 6" meter                             | \$ 961.40       |                 |                                     |
| Usage charge, per 1,000 gallons      | \$ 7.10         |                 |                                     |

OFFICIAL COPY

Sep 19 2017

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

Casselberry  
Exhibit No. 25  
Page 4 of 10

OFFICIAL COPY

Sep 19 2017

The Public Staff recommends CWSNC's Uniform Rates as shown below.

MONTHLY METERED SERVICE: (Residential and Commercial) CWSNC's Uniform Rates

|  | <u>Existing</u> | <u>Proposed</u> | <u>Public Staff's<br/>Recommend</u> |
|--|-----------------|-----------------|-------------------------------------|
| Base Facilities Charges (zero usage)                     |                 |                 |                                     |
| < 1" meter   | \$              | \$ 26.95        | \$ 24.44                            |
| 1" meter   | \$              | \$ 67.38        | \$ 61.10                            |
| 1-1/2" meter   | \$              | \$ 134.75       | \$ 122.20                           |
| 2" meter   | \$              | \$ 215.60       | \$ 195.52                           |
| 3" meter   | \$              | \$ 404.25       | \$ 366.60                           |
| 4" meter   | \$              | \$ 673.75       | \$ 611.00                           |
| 6" meter   | \$              | \$1,347.50      | \$1,222.00                          |
| Usage Charge, per 1,000 gallons<br>Treated water         |                 | \$ 7.70         | \$ 7.70                             |
| <u>AVERAGE RESIDENTIAL BILL</u> (based on 3,980 gallons) | \$ 47.49        | \$ 57.60        | \$ 55.09                            |

FAIRFIELD SAPPHIRE VALLEY SERVICE AREA

Monthly Metered Water Service:

|                                      | <u>Existing</u> | <u>Proposed</u> | <u>Public Staff's<br/>Recommend</u> |
|--------------------------------------|-----------------|-----------------|-------------------------------------|
| Base Facilities Charges (zero usage) |                 |                 |                                     |
| Residential                          | \$ 19.89        |                 |                                     |
| Commercial and Other:                |                 |                 |                                     |
| 5/8" meter                           | \$ 19.89        |                 |                                     |
| 3/4" meter                           | \$ 29.84        |                 |                                     |
| 1" meter                             | \$ 49.73        |                 |                                     |
| 1-1/2" meter                         | \$ 99.45        |                 |                                     |
| 2" meter                             | \$ 159.13       |                 |                                     |
| 3" meter                             | \$ 298.37       |                 |                                     |
| 4" meter                             | \$ 497.20       |                 |                                     |
| 6" meter                             | \$ 994.41       |                 |                                     |
| Usage charge, per 1,000 gallons      | \$ 9.17         |                 |                                     |

The Public Staff recommends CWSNC's Uniform Rates as shown below.

MONTHLY METERED SERVICE: (Residential and Commercial) CWSNC's Uniform Rates

|  | <u>Existing</u> | <u>Proposed</u> | <u>Public Staff's<br/>Recommend</u> |
|--|-----------------|-----------------|-------------------------------------|
| Base Facilities Charges (zero usage)                     |                 |                 |                                     |
| < 1" meter   | \$              | \$ 26.95        | \$ 24.44                            |
| 1" meter   | \$              | \$ 67.38        | \$ 61.10                            |
| 1-1/2" meter   | \$              | \$ 134.75       | \$ 122.20                           |
| 2" meter   | \$              | \$ 215.60       | \$ 195.52                           |
| 3" meter   | \$              | \$ 404.25       | \$ 366.60                           |
| 4" meter   | \$              | \$ 673.75       | \$ 611.00                           |
| 6" meter   | \$              | \$1,347.50      | \$1,222.00                          |
| Usage Charge, per 1,000 gallons<br>Treated water         |                 | \$ 7.70         | \$ 7.70                             |
| <u>Monthly Water Availability Rate:</u>                  | \$ 9.07         | \$ 9.07         | \$ 9.10                             |
| <u>AVERAGE RESIDENTIAL BILL</u> (based on 3,980 gallons) | \$ 56.39        | \$ 57.60        | \$ 55.09                            |



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

Casselberry  
Exhibit No. 25  
Page 5 of 10

**CAROLINA TRACE DEVELOPMENT**

**Monthly Metered Water Rates:**

|                                 | <u>Existing</u> | <u>Proposed</u> | <u>Public Staff's<br/>Recommend</u> |
|---------------------------------|-----------------|-----------------|-------------------------------------|
| Base Charge, zero usage         | \$ 14.05 (min.) |                 |                                     |
| Usage charge, per 1,000 gallons | \$ 5.06         |                 |                                     |

The Public Staff recommends CWSNC's Uniform Rates for Purchased Water System as shown below.

**MONTHLY METERED SERVICE:** (Residential and Commercial) CWSNC's Uniform Rates

**Base Facilities Charges (zero usage)**

|   | <u>Existing</u> | <u>Proposed</u> | <u>Public Staff's<br/>Recommend</u> |
|---|-----------------|-----------------|-------------------------------------|
| < 1" meter  |                 | \$ 26.95        | \$ 24.44                            |
| 1" meter  |                 | \$ 67.38        | \$ 61.10                            |
| 1-1/2" meter  |                 | \$ 134.75       | \$ 122.20                           |
| 2" meter  |                 | \$ 215.60       | \$ 195.52                           |
| 3" meter  |                 | \$ 404.25       | \$ 366.60                           |
| 4" meter  |                 | \$ 673.75       | \$ 611.00                           |
| 6" meter  |                 | \$1,347.50      | \$1,222.00                          |
| Purchased Water for resale, per 1,000 gallons                   |                 | \$ 2.21         | \$ 2.21                             |
| <b><u>AVERAGE RESIDENTIAL BILL</u></b> (based on 3,980 gallons) | \$ 34.19        | \$ 35.75        | \$ 33.24                            |

**CONNESTEE FALLS SUBDIVISION**

**Monthly Metered Water Service:**

|                                      | <u>Existing</u> | <u>Proposed</u> | <u>Public Staff's<br/>Recommend</u> |
|--------------------------------------|-----------------|-----------------|-------------------------------------|
| Base Facilities Charges (zero usage) |                 |                 |                                     |
| 5/8 x 3/4" meter                     | \$ 27.41        |                 |                                     |
| 1" meter                             | \$ 68.51        |                 |                                     |
| 2" meter                             | \$ 219.22       |                 |                                     |
| Usage charge, per 1,000 gallons      | \$ 6.65         |                 |                                     |

The Public Staff recommends CWSNC's Uniform Rates as shown below.

**MONTHLY METERED SERVICE:** (Residential and Commercial) CWSNC's Uniform Rates

|   | <u>Existing</u> | <u>Proposed</u> | <u>Public Staff's<br/>Recommend</u> |
|---|-----------------|-----------------|-------------------------------------|
| Base Facilities Charges (zero usage)                            |                 |                 |                                     |
| < 1" meter  | \$              | \$ 26.95        | \$ 24.44                            |
| 1" meter  | \$              | \$ 67.38        | \$ 61.10                            |
| 1-1/2" meter  | \$              | \$ 134.75       | \$ 122.20                           |
| 2" meter  | \$              | \$ 215.60       | \$ 195.52                           |
| 3" meter  | \$              | \$ 404.25       | \$ 366.60                           |
| 4" meter  | \$              | \$ 673.75       | \$ 611.00                           |
| 6" meter  | \$              | \$1,347.50      | \$1,222.00                          |
| Usage Charge, per 1,000 gallons                                 |                 |                 |                                     |
| Treated water   |                 | \$ 7.70         | \$ 7.70                             |
| <b><u>AVERAGE RESIDENTIAL BILL</u></b> (based on 3,980 gallons) | \$ 53.88        | \$ 57.60        | \$ 55.09                            |

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

Casselberry  
Exhibit No. 25  
Page 6 of 10

## SEWER RATES AND CHARGES

### UNIFORM SEWER SERVICE

The Public Staff recommends the same base facility charge for all residential customers regardless as to the size of the meter as shown below.

|                                      | <u>Existing</u> | <u>Proposed</u> | <u>Public Staff<br/>Recommend</u> |
|--------------------------------------|-----------------|-----------------|-----------------------------------|
| Base Facilities Charges (zero usage) |                 |                 |                                   |
| Residential                          | \$ 42.40        |                 | \$ 45.97                          |
| Commercial and Other:                |                 |                 |                                   |
| <1" meter                            | \$ 42.40        |                 | \$ 45.97                          |
| 1" meter                             | \$ 106.00       |                 | \$ 114.93                         |
| 1-1/2" meter                         | \$ 211.99       |                 | \$ 229.85                         |
| 2" meter                             | \$ 339.18       |                 | \$ 367.76                         |
| 3" meter                             | \$ 635.97       |                 | \$ 689.55                         |
| 4" meter                             | \$1,059.95      |                 | \$1,149.25                        |
| 6" meter                             | \$2,119.90      |                 | \$2,298.50                        |
| Usage charge, per 1,000 gallons      | \$ 2.90         |                 | \$ 3.11                           |

### MONTHLY METERED SEWER SERVICE: (Residential and Commercial)

|                                      | <u>Existing</u> | <u>Proposed</u> | <u>Public Staffs<br/>Recommend</u> |
|--------------------------------------|-----------------|-----------------|------------------------------------|
| Base Facilities Charges (zero usage) |                 |                 |                                    |
| < 1" meter                           | \$              | \$ 48.59        |                                    |
| 1" meter                             | \$              | \$ 121.48       |                                    |
| 1-1/2" meter                         | \$              | \$ 242.95       |                                    |
| 2" meter                             | \$              | \$ 388.72       |                                    |
| 3" meter                             | \$              | \$ 728.85       |                                    |
| 4" meter                             | \$              | \$1,214.75      |                                    |
| 6" meter                             | \$              | \$2,429.50      |                                    |
| Usage Charge, per 1,000 gallons      | \$              | \$ 3.32         |                                    |

AVERAGE RESIDENTIAL BILL (based on 3,417 gallons) \$ 52.31 \$ 59.93 \$ 56.60

### MONTHLY METERED PURCHASED SEWER SERVICE:

|  |                      |  |  |
|--|----------------------|--|--|
| Collection charge (Residential and Commercial/SFE)       | \$ 33.92             | \$ 38.87                               | \$ 36.75                               |
| Usage charge, per 1,000 gallons based on purchased water |                      |  |  |
| <u>Service Area</u> <u>Bulk Provider</u>                 |                      | <u>Usage Charge/<br/>1,000 gallons</u> | <u>Usage charge<br/>/1,000 gallons</u> |
| White Oak Pl./Lee  |                      |  |  |
| Forest/Winston Pl.                                       | Johnston County      | \$ 4.55                                | \$ 4.82                                |
| Kings Grant  | Two Rivers Utilities | \$ 3.80                                | \$ 3.80                                |
| College Park   | Town of Dallas       | \$ 5.70                                | \$ 5.70                                |

MONTHLY FLAT RATE SERVICE: \$ 52.55 \$ 60.22 \$ 56.57

Multi-residential customers who are served by a  
Master meter shall be charged the flat rate per unit

OFFICIAL COPY

Sep 19 2017

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

Casselberry  
Exhibit No. 25  
Page 7 of 10

MT CARMEL SUBDIVISION SERVICE AREAS:

|  | <u>Existing</u> | <u>Proposed</u> | <u>Public Staff's<br/>Recommend</u> |
|--|-----------------|-----------------|-------------------------------------|
| Monthly Base Facility Charge                                 | \$ 6.77         | \$ 6.77         | \$ 6.77                             |
| Usage charge/1,000 gallons<br>(based on metered water usage) | \$ 5.88         | \$ 5.88         | \$ 5.88                             |
| Monthly Collection Charge<br>(Residential and Commercial)    | \$ 27.33        | \$ 38.87        | \$ 36.75                            |

REGALWOOD AND WHITE OAK ESTATES SUBDIVISION SERVICE AREAS:

A. Monthly Flat Rate Sewer Service:

|                       | <u>Existing</u> | <u>Proposed</u> | <u>Public Staff's<br/>Recommend</u> |
|-----------------------|-----------------|-----------------|-------------------------------------|
| Residential Service   | \$ 52.55        | \$ 60.22        | \$ 56.57                            |
| White Oak High School | \$1,630.74      | \$1,868.71      | \$1,770.10                          |
| Child Castle Daycare  | \$ 202.85       | \$ 232.45       | \$ 219.90                           |
| Pantry                | \$ 107.74       | \$ 123.46       | \$ 116.80                           |

THE VILLAGE OF NAGS HEAD

MONTHLY METERED SERVICE: (Commercial)

|   | <u>Existing</u> | <u>Proposed</u> | <u>Public Staff's<br/>Recommend</u> |
|---|-----------------|-----------------|-------------------------------------|
| Base Facilities Charges (based on meter size with zero usage) |                 |                 |                                     |
| <1" meter   | \$ 18.43        |                 | \$                                  |
| 1" meter  | \$ 46.10        |                 | \$                                  |
| 1-1/2" meter  | \$ 92.19        |                 | \$                                  |
| 2" meter  | \$ 147.51       |                 | \$                                  |
| 3" meter  | \$ 276.58       |                 | \$                                  |
| 4" meter  | \$ 460.96       |                 | \$                                  |
| 6" meter  | \$ 921.93       |                 | \$                                  |
| Usage Charge, per 1,000 gallons                               | \$ 9.31         |                 | \$                                  |
| Minimum Monthly Charge  | \$ 62.65        |                 |                                     |
| <u>Monthly Flat Rate Sewer Service</u>                        | \$ 62.65        |                 |                                     |

The Public Staff recommends CWSNC's Uniform Rates with the same base facility charge for all residential customers regardless as to the size of the meter as shown below. Residential customers in Nags Head are monthly flat rate so the metered rate does not apply.

MONTHLY METERED SEWER SERVICE: (Residential and Commercial) CWSNC's Uniform Rates

|                                      | <u>Existing</u> | <u>Proposed</u> | <u>Public Staff<br/>Recommend</u> |
|--------------------------------------|-----------------|-----------------|-----------------------------------|
| Base Facilities Charges (zero usage) |                 |                 |                                   |
| Residential                          | \$              |                 | \$ 45.97                          |
| Commercial and Other:                |                 |                 |                                   |
| <1" meter                            | \$              | \$ 48.59        | \$ 45.97                          |
| 1" meter                             | \$              | \$ 121.48       | \$ 114.93                         |
| 1-1/2" meter                         | \$              | \$ 242.95       | \$ 229.85                         |
| 2" meter                             | \$              | \$ 388.72       | \$ 367.76                         |
| 3" meter                             | \$              | \$ 728.85       | \$ 689.55                         |
| 4" meter                             | \$              | \$ 1,214.75     | \$ 1,149.25                       |
| 6" meter                             | \$              | \$ 2,429.50     | \$ 2,298.50                       |
| Usage charge, per 1,000 gallons      | \$              | \$ 3.32         | \$ 3.11                           |

OFFICIAL COPY

Sep 19 2017

|                                   | <u>Existing</u> | <u>Proposed</u> | <u>Public Staff</u><br><u>Recommend</u> |
|-----------------------------------|-----------------|-----------------|---|
| <u>MONTHLY FLAT RATE SERVICE:</u> | \$              | \$ 60.22        | \$ 56.57                                |

Multi-residential customers who are served by a  
Master meter shall be charged the flat rate per unit

|                                   |          |          |          |
|-----------------------------------|----------|----------|----------|
| <u>RESIDENTIAL BILL FLAT RATE</u> | \$ 62.65 | \$ 60.22 | \$ 56.57 |
|-----------------------------------|----------|----------|----------|

FAIRFIELD MOUNTAIN/APPLE VALLEY (a.k.a. RUMBLING BALD) SERVICE AREA, HIGHLAND SHORES  
SUBDIVISION AND LAUREL MOUNTAIN ESTATES

Public Staff recommends CWSNC's Uniform Rates for purchased sewer system as shown below.

Monthly Sewer Rates:

|  | <u>Existing</u> | <u>Proposed</u> | <u>Public Staff</u><br><u>Recommend</u> |
|--|-----------------|-----------------|---|
| Residential  |                 |                 |   |
| Collection charge/dwelling unit  | \$ 17.17        | \$ 38.87        | \$ 36.75                                |
| Treatment charge/dwelling unit   | \$ 69.50        | \$ 69.50        | \$ 69.50                                |
| Total monthly flat rate/dwelling unit  | \$ 86.67        | \$ 108.37       | \$ 106.25                               |
| Commercial and Other   |                 |                 |   |
| Minimum monthly collection and treatment charge  | \$ 86.67        | \$ 108.37       | \$ 106.25                               |
| Monthly collection and treatment charge for<br>Customers who do not take water service<br>(per single family equivalent) | \$ 86.67        | \$ 108.37       | \$ 106.25                               |
| Treatment charge per dwelling unit   |                 |                 |   |
| Small (less than 2,500 gallons per month)  | \$ 78.50        | \$ 78.50        | \$ 78.50                                |
| Medium (2,500 to 10,000 gallons per month)   | \$ 139.50       | \$ 139.50       | \$ 139.50                               |
| Large (over 10,000 gallons per month)  | \$ 219.50       | \$ 219.50       | \$ 219.50                               |
| Collection Charge, per 1,000 gallons   | \$ 12.16        | \$ 13.93        | \$ 13.93                                |
| <u>RESIDENTIAL BILL</u>  | \$ 86.67        | \$ 108.37       | \$ 106.25                               |

FAIRFIELD SAPPHIRE VALLEY SERVICE AREA

Monthly Sewer Rates:

|   | <u>Existing</u> | <u>Proposed</u> | <u>Public Staff's</u><br><u>Recommend</u> |
|---|-----------------|-----------------|---|
| Residential   |                 |                 |   |
| Flat Rate, per dwelling unit  | \$ 35.52        |                 |   |
| Commercial and Other  |                 |                 |   |
| Minimum rate  | \$ 35.52        |                 |   |
| Customers who do not take water<br>Service (per single family equivalent) | \$ 35.52        |                 |   |

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

Casselberry  
Exhibit No. 25  
Page 9 of 10

OFFICIAL COPY

Sep 19 2017

Base Facilities Charges (based on meter size with zero usage))

|                                 | <u>Existing</u> | <u>Proposed</u> | <u>Public Staff's<br/>Recommend</u> |
|---------------------------------|-----------------|-----------------|-------------------------------------|
| 5/8" meter                      | \$ 15.62        |                 |                                     |
| 3/4" meter                      | \$ 15.62        |                 |                                     |
| 1" meter                        | \$ 39.04        |                 |                                     |
| 1-1/2" meter                    | \$ 78.08        |                 |                                     |
| 2" meter                        | \$ 124.92       |                 |                                     |
| 3" meter                        | \$ 234.23       |                 |                                     |
| 4" meter                        | \$ 390.39       |                 |                                     |
| 6" meter                        | \$ 780.78       |                 |                                     |
| Usage charge, per 1,000 gallons | \$ 7.88         |                 |                                     |

The Public Staff recommends CWSNC's Uniform Rates with the same base facility charge for all residential customers regardless as to the size of the meter as shown below. Residential customers in Sapphire Valley are monthly flat rate so the metered rate does not apply at this time.

MONTHLY METERED SEWER SERVICE: (Residential and Commercial) CWSNC's Uniform Rates

|                                      | <u>Existing</u> | <u>Proposed</u> | <u>Public Staff<br/>Recommend</u> |
|--------------------------------------|-----------------|-----------------|-----------------------------------|
| Base Facilities Charges (zero usage) |                 |                 |                                   |
| Residential                          | \$              |                 | \$ 45.97                          |
| Commercial and Other:                |                 |                 |                                   |
| <1" meter                            | \$              | \$ 48.59        | \$ 45.97                          |
| 1" meter                             | \$              | \$ 121.48       | \$ 114.93                         |
| 1-1/2" meter                         | \$              | \$ 242.95       | \$ 229.85                         |
| 2" meter                             | \$              | \$ 388.72       | \$ 367.76                         |
| 3" meter                             | \$              | \$ 728.85       | \$ 689.55                         |
| 4" meter                             | \$              | \$ 1,214.75     | \$ 1,149.25                       |
| 6" meter                             | \$              | \$ 2,429.50     | \$ 2,298.50                       |
| Usage charge, per 1,000 gallons      | \$              | \$ 3.32         | \$ 3.11                           |
| <u>MONTHLY FLAT RATE SERVICE:</u>    | \$              | \$ 60.22        | \$ 56.57                          |

Multi-residential customers who are served by a  
Master meter shall be charged the flat rate per unit

|                                   |          |          |          |
|-----------------------------------|----------|----------|----------|
| <u>RESIDENTIAL BILL FLAT RATE</u> | \$ 35.52 | \$ 60.22 | \$ 56.57 |
|-----------------------------------|----------|----------|----------|

CAROLINA TRACE DEVELOPMENT

|                                     | <u>Existing</u> | <u>Proposed</u> | <u>Public Staff's<br/>Recommend</u> |
|-------------------------------------|-----------------|-----------------|-------------------------------------|
| <u>Monthly Metered Sewer Rates:</u> |                 |                 |                                     |
| Base Charge, zero usage             | \$ 35.41 (min.) |                 |                                     |
| Usage charge, per 1,000 gallons     | \$ 8.38         |                 |                                     |

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

Casselberry  
Exhibit No. 25  
Page 10 of 10

The Public Staff recommends CWSNC's Uniform Rates with the same base facility charge for all residential customers regardless as to the size of the meter as shown below.

MONTHLY METERED SEWER SERVICE: (Residential and Commercial) CWSNC's Uniform Rates

|   | <u>Existing</u> | <u>Proposed</u> | <u>Public Staff<br/>Recommend</u> |
|---|-----------------|-----------------|-----------------------------------|
| Base Facilities Charges (zero usage)                            |                 |                 |                                   |
| Residential   | \$              |                 | \$ 45.97                          |
| Commercial and Other:   |                 |                 |                                   |
| <1" meter   | \$              | \$ 48.59        | \$ 45.97                          |
| 1" meter  | \$              | \$ 121.48       | \$ 114.93                         |
| 1-1/2" meter  | \$              | \$ 242.95       | \$ 229.85                         |
| 2" meter  | \$              | \$ 388.72       | \$ 367.76                         |
| 3" meter  | \$              | \$ 728.85       | \$ 689.55                         |
| 4" meter  | \$              | \$ 1,214.75     | \$ 1,149.25                       |
| 6" meter  | \$              | \$ 2,429.50     | \$ 2,298.50                       |
| Usage charge, per 1,000 gallons                                 | \$              | \$ 3.32         | \$ 3.11                           |
| <b><u>AVERAGE RESIDENTIAL BILL</u></b> (based on 3,417 gallons) | \$ 64.04        | \$ 59.93        | \$ 56.60                          |

CONNESTEE FALLS SUBDIVISION

|                                      | <u>Existing</u> | <u>Proposed</u> | <u>Public Staff's<br/>Recommend</u> |
|--------------------------------------|-----------------|-----------------|-------------------------------------|
| Monthly Flat Rate                    | \$ 45.11        |                 |                                     |
| Monthly Metered Service              |                 |                 |                                     |
| Base Facilities Charges (zero usage) |                 |                 |                                     |
| 5/8 x 3/4" meter                     | \$ 26.86        |                 |                                     |
| 1" meter                             | \$ 67.15        |                 |                                     |
| 2" meter                             | \$ 214.89       |                 |                                     |
| Usage charge, per 1,000 gallons      | \$ 6.75         |                 |                                     |

The Public Staff recommends CWSNC's Uniform Rates with the same base facility charge for all residential customers regardless as to the size of the meter as shown below.

MONTHLY METERED SEWER SERVICE: (Residential and Commercial) CWSNC's Uniform Rates

|   | <u>Existing</u> | <u>Proposed</u> | <u>Public Staff<br/>Recommend</u> |
|---|-----------------|-----------------|-----------------------------------|
| Base Facilities Charges (zero usage)  |                 |                 |                                   |
| Residential   | \$              |                 | \$ 45.97                          |
| Commercial and Other:   |                 |                 |                                   |
| <1" meter   | \$              | \$ 48.59        | \$ 45.97                          |
| 1" meter  | \$              | \$ 121.48       | \$ 114.93                         |
| 1-1/2" meter  | \$              | \$ 242.95       | \$ 229.85                         |
| 2" meter  | \$              | \$ 388.72       | \$ 367.76                         |
| 3" meter  | \$              | \$ 728.85       | \$ 689.55                         |
| 4" meter  | \$              | \$ 1,214.75     | \$ 1,149.25                       |
| 6" meter  | \$              | \$ 2,429.50     | \$ 2,298.50                       |
| Usage charge, per 1,000 gallons   | \$              | \$ 3.32         | \$ 3.11                           |
| <b><u>MONTHLY FLAT RATE SERVICE:</u></b>  | \$              | \$ 60.22        | \$ 56.57                          |
| Multi-residential customers who are served by a<br>Master meter shall be charged the flat rate per unit |                 |                 |                                   |
| <b><u>AVERAGE RESIDENTIAL BILL</u></b> (based on 3,417 gallons)   | \$ 49.92        | \$ 59.93        | \$ 56.60                          |

11--

Carolina Water Service Inc., of North Carolina  
Docket No. W-354, Sub 356  
For the 12 Months Ending December 31, 2016

Casselberry  
Exhibit No. 26  
Page 1 of 3

OFFICIAL COPY

Sep 19 2017

**COMPANY'S PRESENT AND PROPOSED RATES AND THE PUBLIC STAFF'S  
RECOMMENDED WATER AND SEWER RATES FOR FAIRFIELD HARBOUR  
SERVICE AREA AND BRADFIELD FARMS SUBDIVISION**

**WATER RATES AND CHARGES**

**FAIRFIELD HARBOUR SERVICE AREA**

**MONTHLY METERED WATER SERVICE:**

|                                      | <u>Existing</u> | <u>Proposed</u> | <u>Public Staff's<br/>Recommend</u> |
|--------------------------------------|-----------------|-----------------|-------------------------------------|
| Base Facilities Charges (zero usage) |                 |                 |                                     |
| Residential                          | \$ 9.73         |                 |                                     |
| Commercial and Other                 |                 |                 |                                     |
| 5/8" meter                           | \$ 9.73         |                 |                                     |
| 3/4" meter                           | \$ 14.60        |                 |                                     |
| 1" meter                             | \$ 24.29        |                 |                                     |
| 1-1/2" meter                         | \$ 48.58        |                 |                                     |
| 2" meter                             | \$ 77.74        |                 |                                     |
| 3" meter                             | \$ 145.99       |                 |                                     |
| 4" meter                             | \$ 243.31       |                 |                                     |
| 6" meter                             | \$ 486.62       |                 |                                     |
| Usage Charge, per 1,000 gallons      | \$ 2.69         |                 |                                     |
| Monthly Water Availability Rate      | \$ 3.28         |                 |                                     |

**BRADFIELD FARMS SUBDIVISION**

**MONTHLY METERED WATER SERVICE:**

|                                 | <u>Existing</u> | <u>Proposed</u> | <u>Public Staff's<br/>Recommend</u> |
|---------------------------------|-----------------|-----------------|-------------------------------------|
| Base charge, zero usage         | \$ 8.29         |                 |                                     |
| Usage charge, per 1,000 gallons | \$ 1.95         |                 |                                     |

**FAIRFIELD HARBOR AND BRADFIELD FARMS NEW RATE DIVISION**

**MONTHLY METERED SERVICE: (Residential and Commercial)**

|                                      | <u>Existing</u> | <u>Proposed</u> | <u>Public Staff's<br/>Recommend</u> |
|--------------------------------------|-----------------|-----------------|-------------------------------------|
| Base Facilities Charges (zero usage) |                 |                 |                                     |
| < 1" meter                           | \$              | \$ 12.84        | \$ 11.44                            |
| 1" meter                             | \$              | \$ 32.10        | \$ 28.60                            |
| 1-1/2" meter                         | \$              | \$ 64.20        | \$ 57.20                            |
| 2" meter                             | \$              | \$ 102.72       | \$ 91.52                            |
| Usage Charge, per 1,000 gallons      |                 |                 |                                     |
| Treated Water                        | \$              | \$ 3.55         | \$ 3.36                             |

**AVERAGE RESIDENTIAL BILL (based on 3,980 gallons)**

|                  |          |          |          |
|------------------|----------|----------|----------|
| Fairfield Harbor | \$ 20.44 | \$ 26.97 | \$ 24.81 |
| Bradfield Farms  | \$ 16.05 | \$ 26.97 | \$ 24.81 |

# SEWER RATES AND CHARGES

## FAIRFIELD HARBOUR SERVICE AREA

### Monthly Sewer Rates:

|   | <u>Existing</u> | <u>Proposed</u> | <u>Public Staff's<br/>Recommend</u> |
|---|-----------------|-----------------|-------------------------------------|
| <b>Residential</b>  |                 |                 |                                     |
| Flat Rate, per dwelling unit                                | \$ 37.89        |                 |                                     |
| <b>Commercial and Other</b>                                 |                 |                 |                                     |
| Monthly Flat Rate<br>(Customers who do not take water)      | \$ 37.89        |                 |                                     |
| Monthly Metered Rates (based on meter size with zero usage) |                 |                 |                                     |
| 5/8" meter  | \$ 10.17        |                 |                                     |
| 3/4" meter  | \$ 15.26        |                 |                                     |
| 1" meter  | \$ 25.43        |                 |                                     |
| 1-1/2" meter  | \$ 50.85        |                 |                                     |
| 2" meter  | \$ 81.36        |                 |                                     |
| 3" meter  | \$ 152.56       |                 |                                     |
| 4" meter  | \$ 254.26       |                 |                                     |
| 6" meter  | \$ 508.52       |                 |                                     |
| Usage Charge, per 1,000 gallons                             | \$ 5.63         |                 |                                     |
| Monthly Water Availability Rate                             | \$ 2.64         |                 |                                     |

|  | <u>Existing</u> | <u>Proposed</u> | <u>Public Staff's<br/>Recommend</u> |
|--|-----------------|-----------------|-------------------------------------|
| <b><u>BRADFIELD FARMS SUBDIVISION</u></b>              |                 |                 |                                     |
| Residential Customer Monthly Flat Rate                 | \$ 26.56        |                 |                                     |
| <b><u>SILVERTON and WOODLAND FARMS SUBDIVISION</u></b> |                 |                 |                                     |
| Monthly Bulk Flat Rate, per customer                   | \$ 25.20        |                 |                                     |
| <b><u>HAWTHORNE AT THE GREEN APARTMENTS</u></b>        |                 |                 |                                     |
| Monthly Bulk Flat Rate, per customer                   | \$ 25.20        |                 |                                     |

## FAIFIELD HARBOR AND BRADFIELD FARMS NEW RATE DIVISION

### MONTHLY SEWER RATES:

|   | <u>Existing</u> | <u>Proposed</u> | <u>Public Staff's<br/>Recommend</u> |
|---|-----------------|-----------------|-------------------------------------|
| <b>Residential</b>  |                 |                 |                                     |
| Flat Rate, per dwelling unit                                | \$              | \$ 42.83        | \$41.40                             |
| Bulk Flat Rate, per REU                                     | \$              | \$ 41.83        | \$40.40                             |
| <b>Commercial and Other</b>                                 |                 |                 |                                     |
| Monthly Flat Rate<br>(Customers who do not take water)      | \$              | \$ 42.83        | \$41.40                             |
| Monthly Metered Rates (based on meter size with zero usage) |                 |                 |                                     |
| <1" meter   | \$              | \$ 11.50        | \$11.12                             |
| 1-1/2" meter  | \$              | \$ 57.50        | \$55.60                             |
| 2" meter  | \$              | \$ 92.00        | \$88.96                             |



Carolina Water Service Inc., of North Carolina  
Docket No. W-354, Sub 356  
For the 12 Months Ending December 31, 2016

Casselberry  
Exhibit No. 26  
Page 3 of 3

|                                 | <u>Existing</u> | <u>Proposed</u> | <u>Public Staffs<br/>Recommend</u> |
|---------------------------------|-----------------|-----------------|------------------------------------|
| Usage Charge, per 1,000 gallons | \$              | \$ 6.36         | \$ 6.20                            |
| Fairfield Harbour               |                 |                 |                                    |
| Monthly Water Availability Rate | \$ 2.64         | \$ 2.64         | \$ 2.65                            |

RESIDENTIAL BILL FLAT RATE

|                             |          |          |          |
|-----------------------------|----------|----------|----------|
| Fairfield Harbor            | \$ 37.89 | \$ 42.83 | \$ 41.40 |
| Bradfield Farms             | \$ 26.56 | \$ 42.83 | \$ 41.40 |
| Bulk Sewer (Bradfield Area) | \$ 25.20 | \$ 41.83 | \$ 40.40 |

OFFICIAL COPY

Sep 19 2017

I/-

OFFICIAL COPY

Carolina Water Service Inc., of North Carolina  
Docket No. W-354, Sub 356  
For the 12 Months Ending December 31, 2016

Casselberry  
Exhibit No. 27  
Page 1 of 1

**AVERAGE MONTHLY BILLS AT COMPANY'S PRESENT AND PROPOSED RATES  
AND PUBLIC STAFF'S RECOMMENDED RATES**

**WATER OPERATIONS**

| <u>Service Area</u> | <u>CWSNC<br/>Present</u> | <u>CWSNC<br/>Proposed</u> | <u>Percent<br/>Increase</u> | <u>Public Staff<br/>Recommended</u> | <u>Percent<br/>Increase</u> |
|---------------------|--------------------------|---------------------------|-----------------------------|-------------------------------------|-----------------------------|
| Uniform Flat        | \$41.60                  | \$50.17                   | 20.60%                      | \$47.45                             | 14.06 %                     |
| Uniform Metered     | \$47.87                  | \$57.60                   | 20.33%                      | \$55.09                             | 15.08 %                     |
| Clearwater          | \$34.18                  | \$57.60                   | 68.52%                      | \$55.09                             | 61.18 %                     |
| Treasure Cove       | \$22.06                  | \$57.60                   | 161.11%                     | \$24.81                             | 12.47 %                     |
| Forest Hill         | \$43.25                  | \$57.60                   | 33.18%                      | \$55.09                             | 27.38 %                     |
| Fairfield Mountain  | \$47.49                  | \$57.60                   | 21.29%                      | \$55.09                             | 16.00 %                     |
| Sapphire Valley     | \$56.39                  | \$57.60                   | 2.15%                       | \$55.09                             | ( 2.31)%                    |
| Connestee Falls     | \$53.88                  | \$57.60                   | 6.90%                       | \$55.09                             | 2.25 %                      |
| Carolina Trace      | \$34.19                  | \$35.75                   | 4.56%                       | \$33.24                             | ( 2.78)%                    |
| Carolina Forest     | \$35.10                  | \$39.65                   | 12.96%                      | \$37.14                             | 5.81 %                      |
| High Vista Estates  | \$35.34                  | \$39.89                   | 12.87%                      | \$37.38                             | 5.77 %                      |
| Riverpointe         | \$47.47                  | \$52.02                   | 9.59%                       | \$49.51                             | 4.30 %                      |
| Whispering Pines    | \$31.28                  | \$35.83                   | 14.55%                      | \$33.32                             | 6.52 %                      |
| White Oak/Lee F.    | \$35.34                  | \$39.89                   | 12.87%                      | \$33.51                             | ( 5.18)%                    |
| Winston Plantation  | \$35.34                  | \$39.89                   | 12.87%                      | \$33.51                             | ( 5.18)%                    |
| Winston Pointe      | \$35.34                  | \$39.89                   | 12.87%                      | \$33.51                             | ( 5.18)%                    |
| Woodrun             | \$35.10                  | \$39.65                   | 12.96%                      | \$37.14                             | 5.81 %                      |
| Yorktown            | \$42.34                  | \$46.89                   | 10.75%                      | \$44.38                             | 4.82 %                      |
| Zemosa Acres        | \$43.37                  | \$47.92                   | 10.49%                      | \$45.41                             | 4.70 %                      |
| Fairfield Harbour   | \$20.44                  | \$26.97                   | 31.95%                      | \$24.81                             | 21.38 %                     |
| Bradfield Farms     | \$16.05                  | \$26.97                   | 68.04%                      | \$24.81                             | 54.58 %                     |

Average bill calculated using the average consumption of 3,980 gallons, based on all residential customers with 5/8 inch meter.

**SEWER OPERATIONS**

| <u>Service Area</u>           | <u>CWSNC<br/>Present</u> | <u>CWSNC<br/>Proposed</u> | <u>Percent<br/>Increase</u> | <u>Public Staff<br/>Recommended</u> | <u>Percent<br/>Increase</u> |
|-------------------------------|--------------------------|---------------------------|-----------------------------|-------------------------------------|-----------------------------|
| Uniform Flat                  | \$52.55                  | \$ 60.22                  | 14.60%                      | \$ 56.57                            | 7.65 %                      |
| Sapphire Valley               | \$35.52                  | \$ 60.22                  | 69.54%                      | \$ 56.57                            | 59.26 %                     |
| Nags Head                     | \$62.65                  | \$ 60.22                  | (3.88%)                     | \$ 56.57                            | ( 9.70)%                    |
| Connestee Falls               | \$49.92                  | \$ 59.93                  | 20.05%                      | \$ 56.60                            | 13.38 %                     |
| Uniform Rate                  | \$52.31                  | \$ 59.93                  | 14.57%                      | \$ 56.60                            | 8.20 %                      |
| White Oak Pl./<br>Lee Forest/ |                          |                           |                             |                                     |                             |
| Winston Pl.                   | \$49.47                  | \$ 54.42                  | 10.01%                      | \$ 53.22                            | 7.58 %                      |
| Kings Grant                   | \$46.90                  | \$ 51.85                  | 10.55%                      | \$ 49.73                            | 6.03 %                      |
| College Park                  | \$53.40                  | \$ 58.35                  | 9.27%                       | \$ 56.23                            | 5.30%                       |
| Mt. Carmel                    | \$54.19                  | \$ 65.73                  | 21.30%                      | \$ 63.61                            | 17.38 %                     |
| Fairfield Mountain            | \$86.67                  | \$108.37                  | 25.04%                      | \$106.25                            | 22.59 %                     |
| Carolina Trace                | \$64.04                  | \$ 59.93                  | (6.42)                      | \$ 56.60                            | (11.62)%                    |
| Fairfield Harbour             | \$37.89                  | \$ 42.83                  | 13.04%                      | \$ 41.40                            | 9.26 %                      |
| Bradfield Farms               | \$26.56                  | \$ 42.83                  | 61.26%                      | \$ 41.40                            | 55.87 %                     |
| Bulk Sewer                    | \$25.20                  | \$ 41.83                  | 65.99%                      | \$ 40.40                            | 60.32 %                     |

Average bill calculated using the average consumption of 3,417 gallons, based on all residential customers with 5/8 inch meter.

Sep 19 2017

11--

Carolina Water Service Inc. of North Carolina  
Docket No. W-354, Sub 356  
Water Testing Costs

Quant  
Exhibit 1  
Page 1 of 7

**Drinking Water Testing**

Carolina Water Service Areas (less Fairfield Harbour & Bradfield)

| 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          | 34                    | Monthly     | 408.00         | \$25.00       | \$10,200    |
| 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              | 56                    | Every 3 yrs | 18.67          | \$153.61      | \$2,867     |
| DBP stage 2              | 44                    | Annual      | 44.00          | \$153.61      | \$6,759     |
| DBP stage 2              | 26                    | Quarterly   | 104.00         | \$153.61      | \$15,975    |
| Lead/Copper              | 730                   | Every 3 yrs | 243.33         | \$24.25       | \$5,901     |
| Lead/Copper              | 5                     | Annually    | 5.00           | \$24.25       | \$121       |
| Asbestos                 | 51                    | Every 9 yrs | 5.67           | \$123.00      | \$697       |
| Inorganics               | 220                   | Every 3 yrs | 73.33          | \$214.62      | \$15,739    |
| Chloride                 | 2                     | Annual      | 2.00           | \$13.00       | \$26        |
| Nitrate                  | 212                   | Annual      | 212.00         | \$13.00       | \$2,756     |
| Nitrate                  | 8                     | Quarterly   | 32.00          | \$13.00       | \$416       |
| VOC                      | 190                   | Every 3 yrs | 63.33          | \$105.10      | \$6,656     |
| VOC                      | 18                    | Annually    | 18.00          | \$105.10      | \$1,892     |
| VOC                      | 12                    | Quarterly   | 48.00          | \$105.10      | \$5,045     |
| SOC - Complete           | 241                   | Every 3 yrs | 80.33          | \$613.72      | \$49,302    |
| SOC - Complete           | 1                     | annually    | 1.00           | \$613.72      | \$614       |
| SOC (505 & 506)          | 5                     | annually    | 5.00           | \$86.73       | \$434       |
| SOC (550)                | 1                     | Quarterly   | 4.00           | \$86.73       | \$347       |
| Rads-Gross Alpha         | 171                   | Every 9 yrs | 19.00          | \$55.00       | \$1,045     |
| Rads-Gross Alpha         | 35                    | Every 6 yrs | 5.83           | \$55.00       | \$321       |
| Rads-Gross Alpha         | 5                     | Every 3 yrs | 1.67           | \$55.00       | \$92        |
| Rads-Gross Alpha         | 8                     | annually    | 8.00           | \$55.00       | \$440       |
| Rads-Uranium             | 141                   | Every 9 yrs | 15.67          | \$50.00       | \$783       |
| Rads-Uranium             | 61                    | Every 6 yrs | 10.17          | \$50.00       | \$508       |
| Rads-Uranium             | 9                     | Every 3 yrs | 3.00           | \$50.00       | \$150       |
| Rads-Uranium             | 6                     | annually    | 6.00           | \$50.00       | \$300       |
| Rads-Uranium             | 2                     | Quarterly   | 8.00           | \$50.00       | \$400       |
| Combined Rad (228 & 226) | 162                   | Every 9 yrs | 18.00          | \$170.00      | \$3,060     |
| Combined Rad (228 & 226) | 32                    | Every 6 yrs | 5.33           | \$170.00      | \$907       |
| Combined Rad (228 & 226) | 13                    | Every 3 yrs | 4.33           | \$170.00      | \$737       |
| Combined Rad (228 & 226) | 11                    | annually    | 11.00          | \$170.00      | \$1,870     |
| Combined Rad (228 & 226) | 1                     | Quarterly   | 4.00           | \$170.00      | \$680       |

Total (All systems on Stage 2 DBP monitoring): \$168,248

OFFICIAL COPY

Sep 19 2017

Carolina Water Service Inc. of North Carolina  
Docket No. W-354, Sub 356  
Water Testing Costs

Quant  
Exhibit 1  
Page 2 of 7

**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                     | Annual      | 2.00           | \$153.61      | \$307       |
| 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: \$2,401

**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

OFFICIAL COPY

Sep 19 2017

|                | Testing Costs 10  | # of Samples<br>Required | Frequency | Tests<br>Per Year | Cost<br>Per Test | Annual<br>Cost |
|----------------|---|--------------------------|-----------|-------------------|------------------|----------------|
|                | Wastewater Analysis   |                          |           |                   |                  |                |
| Arlington      | BOD   | 1                        | Weekly    | 52                | \$ 25.00         | \$ 1,300       |
|                | Total Suspended Solids (TSS)  | 1                        | Weekly    | 52                | \$ 15.00         | \$ 780         |
|                | Ammonia Nitrogen (NH <sub>3</sub> as N)   | 1                        | Weekly    | 52                | \$ 15.00         | \$ 780         |
|                | Fecal Coliform  | 1                        | Weekly    | 52                | \$ 10.00         | \$ 520         |
|                | Total Nitrogen (NN/TKN) (Qtrly)   | 4                        | Annually  | 4                 | \$ 35.00         | \$ 140         |
|                | 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 <sub>3</sub> 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 <sub>3</sub> 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 <sub>3</sub> 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          |
|                | Influent: BOD (3/yr)  | 3                        | Annually  | 3                 | \$ 25.00         | \$ 75          |
|                | Influent: Ammonia Nitrogen (3/yr)   | 3                        | Annually  | 3                 | \$ 20.00         | \$ 60          |
|                | Influent: Total Nitrogen (NN/TKN) (3/yr)  | 3                        | Annually  | 3                 | \$ 55.00         | \$ 165         |
|                | Influent: Total Phosphorus (3/yr)   | 3                        | Annually  | 3                 | \$ 20.00         | \$ 60          |
|                | Influent: Chloride (3/yr)   | 3                        | Annually  | 3                 | \$ 20.00         | \$ 60          |
|                | Influent: 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 (6 total - 3/yr) Depth, Ammonia Nitrogen, Gallons, Odor, TDS, Temp, Chloride, pH, Total Phosphorus, Fecal Coliform, Nitrate Nitrogen | 27                       | Annually  | 27                | \$ 200.00        | \$ 5,400       |
| Bent Creek     | BOD   | 1                        | Weekly    | 52                | \$ 25.00         | \$ 1,300       |
|                | Total Suspended Solids (TSS)  | 1                        | Weekly    | 52                | \$ 10.00         | \$ 520         |
|                | Ammonia Nitrogen (NH <sub>3</sub> 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                | \$ 200.00        | \$ 3,600       |
|                | 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                 | \$ 653.63        | \$ 654         |
|                | Field Lab Certification Testing (Sept) Low level TRC only   | 1                        | Annually  | 1                 | \$ 225.56        | \$ 226         |
|                | 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         |

| Testing Costs 10  | # of Samples<br>Required | Frequency   | Tests<br>Per Year | Cost<br>Per Test | Annual<br>Cost |
|---|--------------------------|-------------|-------------------|------------------|----------------|
| Wastewater Analysis   |                          |             |                   |                  |                |
| Ammonia Nitrogen (NH <sub>3</sub> 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       |
| Sludge Testing (for land application)   | 1                        | Annually    | 1                 | \$ 375.00        | \$ 375         |
| BOD   | 1                        | Weekly      | 52                | \$ 38.00         | \$ 1,976       |
| Total Suspended Solids (TSS)  | 1                        | Weekly      | 52                | \$ 11.00         | \$ 572         |
| Ammonia Nitrogen (NH <sub>3</sub> as N)   | 1                        | Weekly      | 52                | \$ 28.00         | \$ 1,456       |
| E. Coli   | 2                        | Weekly      | 104               | \$ 35.00         | \$ 3,640       |
| 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                | \$ 3.09          | \$ 156         |
| Field Lab Certification (SC)  | 1                        | Annually    | 1                 | \$ 360.64        | \$ 361         |
| Instream Biological Assessment  | 1                        | Every 5 yrs | 0.2               | \$ 1,680.00      | \$ 336         |
| BOD   | 1                        | Weekly      | 52                | \$ 20.00         | \$ 1,040       |
| Total Suspended Solids (TSS)  | 1                        | Weekly      | 52                | \$ 12.00         | \$ 624         |
| Ammonia Nitrogen (NH <sub>3</sub> 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                 | \$ 585.67        | \$ 586         |
| 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                | \$ 215.00        | \$ 3,225       |
| 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         |
| BOD   | 1                        | Weekly      | 52                | \$ 16.00         | \$ 832         |
| Total Suspended Solids (TSS)  | 1                        | Weekly      | 52                | \$ 9.60          | \$ 499         |
| Ammonia Nitrogen (NH <sub>3</sub> 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       |
| Total Suspended Solids (TSS)  | 1                        | Weekly      | 52                | \$ 12.61         | \$ 656         |
| Ammonia Nitrogen (NH <sub>3</sub> 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       |
| 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                 | \$ 220.00        | \$ 1,980       |
| VOC (Monitoring wells; 3 total - 1/yr)  | 3                        | Annually    | 3                 | \$ 110.00        | \$ 330         |
| Sludge Testing (for land application)   | 1                        | Annually    | 1                 | \$ 375.00        | \$ 375         |
| 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         |

| Testing Costs 10  | # of Samples<br>Required | Frequency | Tests<br>Per Year | Cost<br>Per Test | Annual<br>Cost |
|---|--------------------------|-----------|-------------------|------------------|----------------|
| <b>Wastewater Analysis</b>  |                          |           |                   |                  |                |
| TSS (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 (1/4yr per discharge)  | 12                       | Annually  | 12                | \$ 22.00         | \$ 264         |
| Iron (1/4yr per discharge)  | 12                       | Annually  | 12                | \$ 22.00         | \$ 264         |
| Zinc (1/4yr per discharge)  | 12                       | Annually  | 12                | \$ 11.00         | \$ 132         |
| Chronic Toxicity (1/4yr per discharge)<br>(cost includes \$50/sample counter fee) | 12                       | Annually  | 12                | \$ 484.50        | \$ 5,814       |
| <b>Queen's Harbor</b>   |                          |           |                   |                  |                |
| BOD   | 1                        | Weekly    | 52                | \$ 20.00         | \$ 1,040       |
| Total Suspended Solids (TSS)  | 1                        | Weekly    | 52                | \$ 12.00         | \$ 624         |
| Ammonia Nitrogen (NH <sub>3</sub> 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         |
| BOD   | 3                        | Weekly    | 156               |                  |                |
| Total Suspended Solids (TSS)  | 3                        | Weekly    | 156               |                  |                |
| Ammonia Nitrogen (NH <sub>3</sub> as N)   | 1                        | Weekly    | 52                | \$ 1,200.00      | \$ 14,400      |
| 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         |
| BOD   | 1                        | Weekly    | 52                | \$ 20.00         | \$ 1,040       |
| Total Suspended Solids (TSS)  | 1                        | Weekly    | 52                | \$ 12.00         | \$ 624         |
| Ammonia Nitrogen (NH <sub>3</sub> 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         |
| BOD   | 1                        | Weekly    | 52                | \$ 20.00         | \$ 1,040       |
| Total Suspended Solids (TSS)  | 1                        | Weekly    | 52                | \$ 12.00         | \$ 624         |
| Ammonia Nitrogen (NH <sub>3</sub> as N)   | 1                        | Weekly    | 52                | \$ 19.00         | \$ 988         |
| Fecal Coliform  | 1                        | Weekly    | 52                | \$ 20.00         | \$ 1,040       |
| Total Nitrogen (NN/TKN) (Qtrly)   | 3                        | Weekly    | 156               | \$ 16.00         | \$ 2,496       |
| Ammonia Nitrogen (NH <sub>3</sub> as N)   | 3                        | Weekly    | 156               | \$ 9.60          | \$ 1,498       |
| Fecal Coliform  | 3                        | Weekly    | 156               | \$ 14.40         | \$ 2,246       |
| Total Nitrogen (NN/TKN) (2/mth)   | 3                        | Weekly    | 156               | \$ 13.60         | \$ 2,122       |
| Total Phosphorus (2/yr)   | 2                        | Annually  | 2                 | \$ 44.00         | \$ 88          |
| Chronic Toxicity (Qtrly)  | 2                        | Annually  | 2                 | \$ 35.00         | \$ 70          |
| Field Lab Certification Testing   | 4                        | Annually  | 4                 | \$ 375.00        | \$ 1,500       |
| BOD   | 1                        | Weekly    | 52                | \$ 377.60        | \$ 376         |
| Total Suspended Solids (TSS)  | 3                        | Weekly    | 156               |                  |                |
| Ammonia Nitrogen (NH <sub>3</sub> as N)   | 3                        | Weekly    | 156               |                  |                |
| Enterococci   | 1                        | Weekly    | 52                | \$ 1,200.00      | \$ 14,400      |
| Total Nitrogen (NN/TKN) (Qtrly)   | 3                        | Weekly    | 156               |                  |                |
| Total Phosphorus  | 4                        | Annually  | 4                 |                  |                |
| Sludge Testing (for land application)   | 1                        | Annually  | 1                 | \$ 375.00        | \$ 375         |
| BOD   | 1                        | Weekly    | 52                | \$ 22.31         | \$ 1,160       |
| Total Suspended Solids (TSS)  | 1                        | Weekly    | 52                | \$ 12.61         | \$ 656         |
| Ammonia Nitrogen (NH <sub>3</sub> as N)   | 1                        | Weekly    | 52                | \$ 17.45         | \$ 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)   |                          |           |                   |                  |                |
| <b>Sludge Testing (for land application)</b>                                      |                          |           |                   |                  |                |
| BOD   | 1                        | Annually  | 1                 | \$ 1,932.00      | \$ 1,932       |
| Total Suspended Solids (TSS)  | 1                        | Weekly    | 52                | \$ 16.00         | \$ 832         |
| Ammonia Nitrogen (NH <sub>3</sub> as N)   | 1                        | Weekly    | 52                | \$ 9.60          | \$ 499         |
| Fecal Coliform  | 1                        | Weekly    | 52                | \$ 14.40         | \$ 749         |
| Total Nitrogen (NN/TKN)   | 1                        | Weekly    | 52                | \$ 13.60         | \$ 707         |
| Chronic Toxicity (Qtrly)  | 1                        | Weekly    | 52                | \$ 10.00         | \$ 520         |
| Turbidity   | 1                        | Weekly    | 52                |                  |                |
| <b>Naag Head</b>  |                          |           |                   |                  |                |
| Effluent BOD (1/mth) May-Aug  | 1                        | Weekly    | 16                | \$ 25.00         | \$ 400         |
| Effluent BOD (2/mth) Sep-Apr  | 2                        | Monthly   | 16                | \$ 25.00         | \$ 400         |
| Effluent Fecal Coliform (1/mth) 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/mth) May-Aug   | 1                        | Weekly    | 16                | \$ 20.00         | \$ 320         |
| Effluent Ammonia Nitrogen (2/mth) Sep-Apr   | 2                        | Monthly   | 16                | \$ 20.00         | \$ 320         |
| Effluent Total Nitrogen (NN/TKN) (1/mth) 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/mth) May-Aug  | 1                        | Weekly    | 16                | \$ 20.00         | \$ 320         |
| Effluent TSS (2/mth) Sep-Apr  | 2                        | Monthly   | 16                | \$ 20.00         | \$ 320         |
| Effluent Total Phosphorus (1/mth) May-Aug   | 1                        | Weekly    | 16                | \$ 25.00         | \$ 400         |

| Testing Costs 10   | # of Samples Required | Frequency | Tests Per Year | Cost Per Test                         | Annual Cost |
|--|-----------------------|-----------|----------------|---------------------------------------|-------------|
| <b>Wastewater Analysis</b>   |                       |           |                |                                       |             |
| 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    |
| <b>Carroll Light</b>   |                       |           |                |                                       |             |
| *Plant #1 Effluent: BOD, Fecal Coliform, Ammonia Nitrogen, Total Nitrogen, Total Phosphorus, TSS (1/week May-Aug)  | 1                     | Weekly    | 16             | \$ 130.00                             | \$ 2,080    |
| **Plant #1 Effluent: BOD, Fecal Coliform, Ammonia Nitrogen, Total Nitrogen, Total Phosphorus, TSS (2/month Sept-April)   | 2                     | Monthly   | 16             | \$ 130.00                             | \$ 2,080    |
| ***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              | \$ 75.00                              | \$ 225      |
| 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             | \$ 235.00                             | \$ 4,935    |
| VOC (Monitoring wells: Plant #1: 7 total - 1/yr)   | 7                     | Annually  | 7              | \$ 110.00                             | \$ 770      |
| Plant #2 Effluent & Influent: BOD (2), TSS (2), Fecal Coliform (1), (2/month, June-Sept)   | 8                     | Annually  | 8              | \$ 90.00                              | \$ 720      |
| 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    |
| Plant #1 Sludge Testing (for land application)   | 1                     | Annually  | 1              | \$ 500.00                             | \$ 500      |
| Plant #2 Sludge Testing (for land application)   | 1                     | Annually  | 1              | \$ 500.00                             | \$ 500      |
| <b>Monterey Shores</b>   |                       |           |                |                                       |             |
| *Effluent: BOD, Ammonia Nitrogen, Total Nitrogen, Total Phosphorus, TSS, Fecal Coliform  | 1                     | Weekly    | 52             | \$ 130.00                             | \$ 6,760    |
| Effluent: Chlorides, TDS   | 3                     | Annually  | 3              | \$ 40.00                              | \$ 120      |
| Influent: TOC, TDS, Chlorides, Nitrate Nitrogen  | 3                     | Annually  | 3              | \$ 75.00                              | \$ 225      |
| GWLS Effluent: BOD, Ammonia Nitrogen, Fecal Coliform, Total Nitrogen, Total Phosphorus   | 1                     | Weekly    | 52             | \$ 115.00                             | \$ 5,980    |
| 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              | \$ 500.00                             | \$ 500      |
|  |                       |           |                | Total O&M                             | \$ 41,835   |
| <b>Fairfield Sapphire Valley</b>   |                       |           |                |                                       |             |
| BOD  | 1                     | Weekly    | 52             |                                       |             |
| Total Suspended Solids (TSS)   | 1                     | Weekly    | 52             | \$ 235.00                             | \$ 2,820    |
| Ammonia Nitrogen (NH <sub>3</sub> 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    |
| <b>Carroll Trace</b>   |                       |           |                |                                       |             |
| BOD  | 3                     | Weekly    | 156            | \$ 22.31                              | \$ 3,480    |
| Total Suspended Solids (TSS)   | 3                     | Weekly    | 156            | \$ 12.61                              | \$ 1,967    |
| Ammonia Nitrogen (NH <sub>3</sub> 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              | \$ 515.69                             | \$ 516      |
|  |                       |           |                | Total 187                             | \$ 13,368   |
| <b>Connetquot Falls</b>  |                       |           |                |                                       |             |
| 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    |
| Plant #2: TSS (1/wk)   | 1                     | Weekly    | 52             | \$ 10.00                              | \$ 520      |
| Plant #2: Fecal Coliform (1/wk)  | 1                     | Weekly    | 52             | \$ 25.00                              | \$ 1,300    |



| Testing Costs 10                        |  | # of Samples Required | Frequency | Tests Per Year | Cost Per Test | Annual Cost |
|---|--|-----------------------|-----------|----------------|---------------|-------------|
| Wastewater Analysis                     |  |                       |           |                |               |             |
| 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 <sub>4</sub> 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 Bradford Farms     |  |                |           |                        |               |             |
|---|--|----------------|-----------|------------------------|---------------|-------------|
| Testing Costs 10                        |  | # of Samples R | Frequency | Tests Per Year         | Cost Per Test | Annual Cost |
| Wastewater Analysis                     |  |                |           |                        |               |             |
| BOD                                     |  | 3              | Weekly    | 156                    | \$ 22.31      | \$ 3,480    |
| Total Suspended Solids (TSS)            |  | 3              | Weekly    | 156                    | \$ 12.61      | \$ 1,967    |
| Ammonia Nitrogen (NH <sub>4</sub> 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 (City)                 |  | 1              | Weekly    | 52                     | \$ 17.46      | \$ 908      |
|   |  |                |           | Total Fairfield Harbor | \$            | 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 <sub>4</sub> 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   | \$ 289,527  |

Totals:  
 Uniform \$ 266,405  
 FH & BF \$ 21,922

W-354, Sub 356  
 Test Year Ending December 31, 2016  
 Purchased Sewer

Quant  
 Exhibit 2  
 Page 1 of 1

| Service Area                       | Invoices     | Adjustments | Public Staff<br>Corrected<br>Invoices | Company<br>Ledger <sup>1</sup><br>Total | Company's<br>Adjustment<br>for<br>Dec Accrual | Company's<br>Adjustment<br>for<br>Jan Credit |            |
|------------------------------------|--------------|-------------|---------------------------------------|---|---|--|------------|
| White Oak Plantation <sup>2</sup>  | \$89,190.81  | 5,150.22    | \$94,341.03                           | 92,290.81                               | 7,600.00                                      | 4,500.00                                     | 89,190.81  |
| Mt. Carmel <sup>3</sup>            | \$128,813.19 | (1,342.36)  | \$127,470.83                          | 128,242.01                              | 10,200.00                                     | 10,100.00                                    | 128,142.01 |
| Kings Grant                        | \$20,254.92  |             | \$20,254.92                           | 19,645.92                               | 1,800.00                                      | 2,400.00                                     | 20,245.92  |
| College park                       | \$32,023.36  |             | \$32,023.36                           | 31,768.11                               | 3,900.00                                      | 7,707.05                                     | 35,575.16  |
| Ridges at Mtn Harbour <sup>4</sup> | \$2,334.62   | 3,952.00    | \$6,286.62                            | 3,534.62                                | 1,200.00                                      |  | 2,334.62   |
| Fairfield Mountain                 | \$309,159.00 |             | \$309,159.00                          | 338,359.00                              | 67,700.00                                     | 38,500.00                                    | 309,159.00 |
| Total                              | \$581,775.90 |             | \$589,535.76                          | 613,840.47                              | 92,400.00                                     | 63,207.05                                    | 584,647.52 |

Notes:

1. The ledger totals include the estimated 13th month aka December total
2. Adjustment of \$5,150.22 due to increase rates (letter from Johnston Co. dated April 6, 2017)
3. Past Due charges were removed as adjustments
4. Invoices only available for approximately 6 months, adjustment included to estimate a full year

I/-

Carolina Water Service Inc. of North Carolina  
Docket No. W-354, Sub 356  
Water Permits

Quant  
Exhibit 3  
Page 1 of 3

OFFICIAL COPY

Sep 19 2017

| System                           | Rate Division  | Invoice Amount |
|----------------------------------|----------------|----------------|
| Bradfield Farms W                | BF/FH          | \$870.00       |
| Carolina Trace Utilities Inc W   | CWS-NC Uniform | \$1,460.00     |
| CWS - NC Cost Center             | CWS-NC Uniform | \$39,185.00    |
| CWS Systems Inc Cost Center      | BF/FH          | \$1,460.00     |
| CWS Systems Inc Cost Center      | CWS-NC Uniform | \$11,570.00    |
| Eastwood Forest                  | CWS-NC Uniform | \$135.00       |
| Elk River Utilities W            | CWS-NC Uniform | \$780.00       |
| Heather Glen                     | CWS-NC Uniform | \$860.00       |
| Heather Glen - Boiler Inspection | CWS-NC Uniform | \$540.00       |
| Hidden Hollow                    | CWS-NC Uniform | \$135.00       |
| Hidden Hollow                    | CWS-NC Uniform | \$135.00       |
| Linsey Pointe                    | CWS-NC Uniform | \$135.00       |
| Meadow Glen                      | CWS-NC Uniform | \$135.00       |
| Olde Point W                     | CWS-NC Uniform | \$35.00        |
| Olde Point W                     | CWS-NC Uniform | \$135.00       |
| Sandy Trail                      | CWS-NC Uniform | \$135.00       |
| Sugar Mountain W                 | CWS-NC Uniform | \$150.00       |
| The Point                        | CWS-NC Uniform | \$860.00       |
| Westwood Forest                  | CWS-NC Uniform | \$135.00       |
| Wilders Village                  | CWS-NC Uniform | \$270.00       |
| Wood Trace - Backwash            | CWS-NC Uniform | \$860.00       |
| Treasure Cove                    | CWS-NC Uniform | \$135.00       |
| The Harbour                      | CWS-NC Uniform | \$860.00       |
| The Farm                         | CWS-NC Uniform | \$135.00       |
| The Harbour                      | CWS-NC Uniform | \$85.00        |
| The Harbour                      | CWS-NC Uniform | \$85.00        |
| Amherst                          | CWS-NC Uniform | \$135.00       |
| The Harbour                      | CWS-NC Uniform | \$185.00       |
| Ransdale Forest                  | CWS-NC Uniform | \$35.00        |
| Lonesome Valley                  | CWS-NC Uniform | \$135.00       |
| Treasure Cove                    | CWS-NC Uniform | \$135.00       |
| Old Point                        | CWS-NC Uniform | \$135.00       |
| Meadow Glen                      | CWS-NC Uniform | \$135.00       |
| Lindsey Point                    | CWS-NC Uniform | \$135.00       |
| Lonesome Valley                  | CWS-NC Uniform | \$305.00       |
| Golf View S/D                    | CWS-NC Uniform | \$660.00       |
| Sassafras Ridge                  | CWS-NC Uniform | \$135.00       |
| Connestee Falls                  | CWS-NC Uniform | \$1,350.00     |

Invoices Total:  
\$64,760.00

Uniform \$62,430.00  
Bradfield Farms & Fairfield Harbor \$2,330.00

| System                         | Rate Division  | Invoice Amount |
|--------------------------------|----------------|----------------|
| Ashley Hills CWS NC            | CWS-NC Uniform | \$5,595.50     |
| Ashley Hills CWS NC            | CWS-NC Uniform | \$860.00       |
| Ashley Hills CWS NC            | CWS-NC Uniform | \$5,595.50     |
| Ashley Hills CWS NC            | CWS-NC Uniform | \$5,595.50     |
| Bear Paw Resort S              | CWS-NC Uniform | \$860.00       |
| Belvedere Plantation S         | CWS-NC Uniform | \$810.00       |
| Bent Creek S                   | CWS-NC Uniform | \$860.00       |
| Bradfield Farms/Larkhaven S    | BF/FH          | \$860.00       |
| Bradfield Farms/Larkhaven S    | BF/FH          | \$810.00       |
| Brandywine Bay S               | CWS-NC Uniform | \$810.00       |
| Brandywine Bay S               | CWS-NC Uniform | \$1,310.00     |
| Carolina Pines Utilities Inc   | CWS-NC Uniform | \$860.00       |
| Carolina Trace Utilities Inc S | CWS-NC Uniform | \$860.00       |
| Corolla Light S                | CWS-NC Uniform | \$750.00       |
| Corolla Light S                | CWS-NC Uniform | \$1,310.00     |
| Danby S                        | CWS-NC Uniform | \$1,330.00     |
| Elk River Utilities S          | CWS-NC Uniform | \$860.00       |
| Fairfield Harbour S            | BF/FH          | \$968.38       |
| Fairfield Harbour S            | BF/FH          | \$860.00       |
| Hestron Park S                 | CWS-NC Uniform | \$1,310.00     |
| Hound Ears S                   | CWS-NC Uniform | \$860.00       |
| Independent/Hemby              | CWS-NC Uniform | \$860.00       |
| Kings Grant - Raleigh          | CWS-NC Uniform | \$860.00       |
| Kings Grant - Raleigh          | CWS-NC Uniform | \$560.50       |
| Kings Grant - Raleigh          | CWS-NC Uniform | \$560.50       |
| Kings Grant - Raleigh          | CWS-NC Uniform | \$560.50       |
| Kynwood Abington S             | CWS-NC Uniform | \$860.00       |
| Monteray Shores S              | CWS-NC Uniform | \$1,310.00     |
| Nags Head                      | CWS-NC Uniform | \$810.00       |
| Nags Head                      | CWS-NC Uniform | \$1,310.00     |
| Nero Utility Services Inc S    | CWS-NC Uniform | \$603.00       |
| Nero Utility Services Inc S    | CWS-NC Uniform | \$860.00       |
| Nero Utility Services Inc S    | CWS-NC Uniform | \$603.25       |
| Nero Utility Services Inc S    | CWS-NC Uniform | \$603.25       |
| Queens Harbor S                | CWS-NC Uniform | \$860.00       |
| Regalwood                      | CWS-NC Uniform | \$860.00       |
| Riverpointe S                  | CWS-NC Uniform | \$860.00       |
| Saddlewood S                   | CWS-NC Uniform | \$860.00       |
| Sapphire Valley S              | CWS-NC Uniform | \$860.00       |
| Sugar Mountain S               | CWS-NC Uniform | \$860.00       |
| Transylvania Utilities Inc S   | CWS-NC Uniform | \$860.00       |
| Transylvania Utilities Inc S   | CWS-NC Uniform | \$860.00       |
| White Oak Estates              | CWS-NC Uniform | \$810.00       |
| White Oak Estates              | CWS-NC Uniform | \$860.00       |
| Willowbrook S                  | CWS-NC Uniform | \$3,154.00     |
| Willowbrook S                  | CWS-NC Uniform | \$860.00       |
| Wolf Laurel S                  | CWS-NC Uniform | \$860.00       |

Carolina Water Service Inc. of North Carolina  
Docket No. W-354, Sub 356  
Sewer Permits

Quant  
Exhibit 3  
Page 3 of 3

| System      | Rate Division  | Invoice Amount |
|-------------|----------------|----------------|
| Amherst S/D | CWS-NC Uniform | \$603.00       |
| Amherst S/D | CWS-NC Uniform | \$860.00       |
| Amherst S/D | CWS-NC Uniform | \$603.25       |
| Amherst S/D | CWS-NC Uniform | \$603.25       |
| Hemby Acres | CWS-NC Uniform | \$860.00       |
| Abington    | CWS-NC Uniform | \$860.00       |

Invoices Total:  
56,859.88

Uniform: 53,361.50  
Bradfield Farms & Fairfield Harbor: 3,498.38

OFFICIAL COPY

Sep 19 2017

II/ --

INDEX TO JOHNSON EXHIBIT I

| LINE NO. | TITLE   | SCHEDULE NO.     |
|----------|---|------------------|
| 1.       | RETURN ON ORIGINAL COST RATE BASE - CWSNC WATER OPERATIONS  | 1(a)             |
| 2.       | RETURN ON ORIGINAL COST RATE BASE - CWSNC SEWER OPERATIONS  | 1(b)             |
| 3.       | RETURN ON ORIGINAL COST RATE BASE - BRADFIELD FARMS/FAIRFIELD HARBOUR WATER OPERATIONS                            | 1(c)             |
| 4.       | RETURN ON ORIGINAL COST RATE BASE - BRADFIELD FARMS/FAIRFIELD HARBOUR SEWER OPERATIONS                            | 1(d)             |
| 5.       | ORIGINAL COST RATE BASE - CWSNC WATER OPERATIONS  | 2(a)             |
| 6.       | ORIGINAL COST RATE BASE - CWSNC SEWER OPERATIONS  | 2(b)             |
| 7.       | ORIGINAL COST RATE BASE - BRADFIELD FARMS/FAIRFIELD HARBOUR WATER OPERATIONS                                      | 2(c)             |
| 8.       | ORIGINAL COST RATE BASE - BRADFIELD FARMS/FAIRFIELD HARBOUR SEWER OPERATIONS                                      | 2(d)             |
| 9.       | CALCULATION OF PLANT IN SERVICE AND ACCUMULATED DEPRECIATION - CWSNC WATER OPERATIONS                             | 2-1(a)           |
| 10.      | CALCULATION OF PLANT IN SERVICE AND ACCUMULATED DEPRECIATION - CWSNC SEWER OPERATIONS                             | 2-1(b)           |
| 11.      | CALCULATION OF PLANT IN SERVICE AND ACCUMULATED DEPRECIATION - BRADFIELD FARMS/FAIRFIELD HARBOUR WATER OPERATIONS | 2-1(c)           |
| 12.      | CALCULATION OF PLANT IN SERVICE AND ACCUMULATED DEPRECIATION - BRADFIELD FARMS/FAIRFIELD HARBOUR SEWER OPERATIONS | 2-1(d)           |
| 13.      | CALCULATION OF DIRECT PLANT IN SERVICE - CWSNC WATER OPERATIONS   | 2-1(a)(1)        |
| 14.      | CALCULATION OF DIRECT PLANT IN SERVICE - CWSNC SEWER OPERATIONS   | 2-1(b)(1)        |
| 15.      | CALCULATION OF DIRECT PLANT IN SERVICE - BRADFIELD FARMS/FAIRFIELD HARBOUR SEWER OPERATIONS                       | 2-1(c)(1)        |
| 16.      | CALCULATION OF DIRECT PLANT IN SERVICE - BRADFIELD FARMS/FAIRFIELD HARBOUR SEWER OPERATIONS                       | 2-1(d)(1)        |
| 17.      | ADJUSTMENT TO DIRECT PLANT IN SERVICE - CWSNC WATER OPERATIONS  | 2-1(a)(2)        |
| 18.      | ADJUSTMENT TO DIRECT PLANT IN SERVICE - CWSNC SEWER OPERATIONS  | 2-1(b)(2)        |
| 19.      | ADJUSTMENT TO DIRECT ACCUMULATED DEPRECIATION   | 2-2              |
| 20.      | CALCULATION OF CASH WORKING CAPITAL   | 2-3              |
| 21.      | ADJUSTMENT TO CONTRIBUTIONS IN AID OF CONSTRUCTION, NET OF AMORTIZATION   | 2-4              |
| 22.      | ADJUSTMENT TO ACCUMULATED DEFERRED INCOME TAXES   | 2-5              |
| 23.      | ADJUSTMENT TO CUSTOMER DEPOSITS   | 2-6              |
| 24.      | ADJUSTMENT TO GAIN ON SALE  | 2-7              |
| 25.      | ADJUSTMENT TO PURCHASE ACQUISITION ADJUSTMENT, NET OF AMORTIZATION  | 2-8              |
| 26.      | CALCULATION OF EXCESS BOOK VALUE  | 2-9              |
| 27.      | CALCULATION OF COST-FREE CAPITAL  | 2-10             |
| 28.      | CALCULATION OF DEFERRED CHARGES   | 2-11             |
| 29.      | CALCULATION OF DEFERRED MAINTENANCE   | 2-11(a)          |
| 30.      | NET OPERATING INCOME FOR A RETURN - CWSNC WATER OPERATIONS  | 3(a) Page 1 of 2 |
| 31.      | FOOTNOTES TO SCHEDULE 3(a) - CWSNC WATER OPERATIONS   | 3(a) Page 2 of 2 |
| 32.      | NET OPERATING INCOME FOR A RETURN - CWSNC SEWER OPERATIONS  | 3(b) Page 1 of 2 |
| 33.      | FOOTNOTES TO SCHEDULE 3(b) - CWSNC SEWER OPERATIONS   | 3(b) Page 2 of 2 |
| 34.      | NET OPERATING INCOME FOR A RETURN - BRADFIELD FARMS/FAIRFIELD HARBOUR WATER OPERATIONS                            | 3(c) Page 1 of 2 |
| 35.      | FOOTNOTES TO SCHEDULE 3(c) - BRADFIELD FARMS/FAIRFIELD HARBOUR WATER OPERATIONS                                   | 3(c) Page 2 of 2 |
| 36.      | NET OPERATING INCOME FOR A RETURN - BRADFIELD FARMS/FAIRFIELD HARBOUR SEWER OPERATIONS                            | 3(d) Page 1 of 2 |
| 37.      | FOOTNOTES TO SCHEDULE 3(d) - BRADFIELD FARMS/FAIRFIELD HARBOUR SEWER OPERATIONS                                   | 3(d) Page 2 of 2 |
| 38.      | ADJUSTMENT TO MISCELLANEOUS REVENUES - CWSNC WATER OPERATIONS   | 3-1(a)           |
| 39.      | ADJUSTMENT TO MISCELLANEOUS REVENUES - CWSNC SEWER OPERATIONS   | 3-1(b)           |
| 40.      | ADJUSTMENT TO MISCELLANEOUS REVENUES - BRADFIELD FARMS/FAIRFIELD HARBOUR WATER OPERATIONS                         | 3-1(c)           |
| 41.      | ADJUSTMENT TO MISCELLANEOUS REVENUES - BRADFIELD FARMS/FAIRFIELD HARBOUR SEWER OPERATIONS                         | 3-1(d)           |
| 42.      | CALCULATION OF FORFEITED DISCOUNTS  | 3-1(e)(1)        |
| 43.      | CALCULATION OF UNCOLLECTIBLE ACCOUNTS   | 3-2              |
| 44.      | ADJUSTMENT TO MAINTENANCE AND REPAIR  | 3-3              |
| 45.      | ADJUSTMENT TO DEFERRED MAINTENANCE AND REPAIR   | 3-3(a)           |
| 46.      | CALCULATION OF REGULATORY COMMISSION EXPENSE  | 3-4              |
| 47.      | ADJUSTMENT TO MISCELLANEOUS EXPENSE   | 3-5              |
| 48.      | CALCULATION OF DEPRECIATION AND AMORTIZATION EXPENSE  | 3-6              |
| 49.      | CALCULATION OF DIRECT DEPRECIATION EXPENSE - CWSNC WATER OPERATIONS   | 3-6(a)           |
| 50.      | CALCULATION OF DIRECT DEPRECIATION EXPENSE - CWSNC SEWER OPERATIONS   | 3-6(b)           |
| 51.      | CALCULATION OF DIRECT DEPRECIATION EXPENSE - BRADFIELD FARMS/FAIRFIELD HARBOUR WATER OPERATIONS                   | 3-6(c)           |
| 52.      | CALCULATION OF DIRECT DEPRECIATION EXPENSE - BRADFIELD FARMS/FAIRFIELD HARBOUR SEWER OPERATIONS                   | 3-6(d)           |
| 53.      | CALCULATION OF INCOME TAXES - CWSNC WATER OPERATIONS  | 3-7(a)           |
| 54.      | CALCULATION OF INCOME TAXES - CWSNC SEWER OPERATIONS  | 3-7(b)           |
| 55.      | CALCULATION OF INCOME TAXES - BRADFIELD FARMS/FAIRFIELD HARBOUR WATER OPERATIONS                                  | 3-7(c)           |
| 56.      | CALCULATION OF INCOME TAXES - BRADFIELD FARMS/FAIRFIELD HARBOUR SEWER OPERATIONS                                  | 3-7(d)           |

**CAROLINA WATER SERVICE, INC., OF NC**  
Docket No. W-354, Sub 356  
**RETURN ON ORIGINAL COST RATE BASE**  
For The Test Year Ended December 31, 2016

Johnson Exhibit I  
Schedule 1(a)

**CWSNC WATER OPERATIONS**

| Line No. | Item                                   | Capitalization Ratio [1]<br>(a) | Original Cost Rate Base [1]<br>(b) | Embedded Cost [1]<br>(c) | Overall Cost Rate [7]<br>(d) | Net Operating Income [7]<br>(e) |
|----------|--|---------------------------------|------------------------------------|--------------------------|------------------------------|---------------------------------|
|          | <b>Present Rates:</b>                  |                                 |                                    |                          |                              |                                 |
| 1.       | Debt                                   | 48.00%                          | \$24,892,888 [2]                   | 5.93% [1]                | 2.85%                        | \$1,476,148 [8]                 |
| 2.       | Equity                                 | 52.00%                          | 26,967,296 [2]                     | 4.18% [6]                | 2.17%                        | 1,128,494 [9]                   |
| 3.       | Total                                  | 100.00%                         | \$51,860,184 [3]                   |                          | 5.02%                        | \$2,604,642 [10]                |
|          | <b>Company Proposed Rates:</b>         |                                 |                                    |                          |                              |                                 |
| 4.       | Debt                                   | 48.00%                          | \$24,892,888 [4]                   | 5.93% [1]                | 2.85%                        | \$1,476,148 [8]                 |
| 5.       | Equity                                 | 52.00%                          | 26,967,296 [4]                     | 11.96% [6]               | 6.22%                        | 3,225,426 [11]                  |
| 6.       | Total                                  | 100.00%                         | \$51,860,184 [3]                   |                          | 9.07%                        | \$4,701,574 [12]                |
|          | <b>Public Staff Recommended Rates:</b> |                                 |                                    |                          |                              |                                 |
| 7.       | Debt                                   | 48.00%                          | \$24,892,888 [5]                   | 5.93% [1]                | 2.85%                        | \$1,476,148 [8]                 |
| 8.       | Equity                                 | 52.00%                          | 26,967,296 [5]                     | 9.60% [6]                | 4.99%                        | 2,588,860 [13]                  |
| 9.       | Total                                  | 100.00%                         | \$51,860,184 [3]                   |                          | 7.84%                        | \$4,065,008 [14]                |

- [1] Per Joint Stipulation filed on August 7, 2017.  
[2] Column (a) multiplied by Line 3, Column (b).  
[3] Johnson Exhibit I, Schedule 2(a), Column (c), Line 17.  
[4] Column (a) multiplied by Line 6, Column (b).  
[5] Column (a) multiplied by Line 9, Column (b).  
[6] Column (e) divided by Column (b).  
[7] Column (a) multiplied by Column (c).

- [8] Column (b) multiplied by Column (c).  
[9] Line 3 minus Line 1, Column (e).  
[10] Johnson Exhibit I, Schedule 3(a), Column (c), Line 38.  
[11] Line 6 minus Line 4, Column (e).  
[12] Johnson Exhibit I, Schedule 3(a), Column (e), Line 38.  
[13] Line 9 minus Line 7, Column (e).  
[14] Column (b) multiplied by Column (d), Line 9).

**CAROLINA WATER SERVICE, INC., OF NC**  
Docket No. W-354, Sub 356  
**RETURN ON ORIGINAL COST RATE BASE**  
For The Test Year Ended December 31, 2016

Johnson Exhibit I  
Schedule 1(b)

**CWSNC SEWER OPERATIONS**

| Line No. | Item                                   | Capitalization Ratio<br>(a) | Original Cost Rate Base<br>(b) | Embedded Cost<br>(c) | Overall Cost Rate<br>(d) | Net Operating Income<br>(e) |
|----------|--|-----------------------------|--------------------------------|----------------------|--------------------------|-----------------------------|
|          |  | [1]                         |                                |                      | [7]                      |                             |
|          | <b>Present Rates:</b>                  |                             |                                |                      |                          |                             |
| 1.       | Debt                                   | 48.00%                      | \$18,733,617 [2]               | 5.93% [1]            | 2.85%                    | \$1,110,903 [8]             |
|          |  | 52.00%                      | 20,294,752 [2]                 | 6.86% [6]            | 3.57%                    | 1,393,102 [9]               |
| 2.       | Equity                                 | 100.00%                     | \$39,028,369 [3]               |                      | 6.42%                    | \$2,504,005 [10]            |
| 3.       | Total                                  |                             |                                |                      |                          |                             |
|          | <b>Company Proposed Rates:</b>         |                             |                                |                      |                          |                             |
| 4.       | Debt                                   | 48.00%                      | \$18,733,617 [4]               | 5.93% [1]            | 2.85%                    | \$1,110,903 [8]             |
| 5.       | Equity                                 | 52.00%                      | 20,294,752 [4]                 | 11.70% [6]           | 6.08%                    | 2,373,586 [11]              |
| 6.       | Total                                  | 100.00%                     | \$39,028,369 [3]               |                      | 8.93%                    | \$3,484,489 [12]            |
|          | <b>Public Staff Recommended Rates:</b> |                             |                                |                      |                          |                             |
| 7.       | Debt                                   | 48.00%                      | \$18,733,617 [5]               | 5.93% [1]            | 2.85%                    | \$1,110,903 [8]             |
| 8.       | Equity                                 | 52.00%                      | 20,294,752 [5]                 | 9.60% [6]            | 4.99%                    | 1,948,296 [13]              |
| 9.       | Total                                  | 100.00%                     | \$39,028,369 [3]               |                      | 7.84%                    | \$3,059,199 [14]            |

- [1] Per Joint Stipulation filed on August 7, 2017.  
[2] Column (a) multiplied by Line 3, Column (b).  
[3] Johnson Exhibit I, Schedule 2(b), Column (c), Line 17.  
[4] Column (a) multiplied by Line 6, Column (b).  
[5] Column (a) multiplied by Line 9, Column (b).  
[6] Column (e) divided by Column (b).  
[7] Column (a) multiplied by Column (c).

- [8] Column (b) multiplied by Column (c).  
[9] Line 3 minus Line 1, Column (e).  
[10] Johnson Exhibit I, Schedule 3(b), Column (c), Line 38.  
[11] Line 6 minus Line 4, Column (e).  
[12] Johnson Exhibit I, Schedule 3(b), Column (e), Line 38.  
[13] Line 9 minus Line 7, Column (e).  
[14] Column (b) multiplied by Column (d), Line 9.



**CAROLINA WATER SERVICE, INC., OF NC**  
Docket No. W-354, Sub 356  
**RETURN ON ORIGINAL COST RATE BASE**  
For The Test Year Ended December 31, 2016  
  
**BRADFIELD/FAIRFIELD WATER OPERATIONS**

Johnson Exhibit I  
Schedule 1(c)

Sep 19 2017 OFFICIAL COPY

| Line No.                                      | Item   | Capitalization Ratio [1]<br>(a) | Original Cost Rate Base [1]<br>(b) | Embedded Cost [1]<br>(c) | Overall Cost Rate [7]<br>(d) | Net Operating Income [7]<br>(e) |
|---|--------|---------------------------------|------------------------------------|--------------------------|------------------------------|---------------------------------|
| <b><u>Present Rates:</u></b>                  |        |                                 |                                    |                          |                              |                                 |
| 1.  | Debt   | 48.00%                          | \$878,767 [2]                      | 5.93% [1]                | 2.85%                        | \$52,111 [8]                    |
| 2.  | Equity | 52.00%                          | 951,998 [2]                        | -5.93% [6]               | -3.08%                       | (56,485) [9]                    |
| 3.  | Total  | 100.00%                         | \$1,830,765 [3]                    |                          | -0.23%                       | (\$4,374) [10]                  |
| <b><u>Company Proposed Rates:</u></b>         |        |                                 |                                    |                          |                              |                                 |
| 4.  | Debt   | 48.00%                          | \$878,767 [4]                      | 5.93% [1]                | 2.85%                        | \$52,111 [8]                    |
| 5.  | Equity | 52.00%                          | 951,998 [4]                        | 14.84% [6]               | 7.72%                        | 141,247 [11]                    |
| 6.  | Total  | 100.00%                         | \$1,830,765 [3]                    |                          | 10.57%                       | \$193,358 [12]                  |
| <b><u>Public Staff Recommended Rates:</u></b> |        |                                 |                                    |                          |                              |                                 |
| 7.  | Debt   | 48.00%                          | \$878,767 [5]                      | 5.93% [1]                | 2.85%                        | \$52,111 [8]                    |
| 8.  | Equity | 52.00%                          | 951,998 [5]                        | 9.60% [6]                | 4.99%                        | 91,392 [13]                     |
| 9.  | Total  | 100.00%                         | \$1,830,765 [3]                    |                          | 7.84%                        | \$143,503 [14]                  |

- [1] Per Joint Stipulation filed on August 7, 2017.  
[2] Column (a) multiplied by Line 3, Column (b).  
[3] Johnson Exhibit I, Schedule 2(c), Column (c), Line 17.  
[4] Column (a) multiplied by Line 6, Column (b).  
[5] Column (a) multiplied by Line 9, Column (b).  
[6] Column (e) divided by Column (b).  
[7] Column (a) multiplied by Column (c).

- [8] Column (b) multiplied by Column (c).  
[9] Line 3 minus Line 1, Column (e).  
[10] Johnson Exhibit I, Schedule 3(c), Column (c), Line 38.  
[11] Line 6 minus Line 4, Column (e).  
[12] Johnson Exhibit I, Schedule 3(c), Column (e), Line 38.  
[13] Line 9 minus Line 7, Column (e).  
[14] Column (b) multiplied by Column (d), Line 9).

**CAROLINA WATER SERVICE, INC., OF NC**  
Docket No. W-354, Sub 356  
**RETURN ON ORIGINAL COST RATE BASE**  
For The Test Year Ended December 31, 2016  
**BRADFIELD/FAIRFIELD SEWER OPERATIONS**

Johnson Exhibit I  
Schedule 1(d)

| Line No. | Item                                   | Capitalization Ratio [1]<br>(a) | Original Cost Rate Base [2]<br>(b) | Embedded Cost [3]<br>(c) | Overall Cost Rate [7]<br>(d) | Net Operating Income [8]<br>(e) |
|----------|--|---------------------------------|------------------------------------|--------------------------|------------------------------|---------------------------------|
|          | <b>Present Rates:</b>                  |                                 |                                    |                          |                              |                                 |
| 1.       | Debt                                   | 48.00%                          | \$2,668,451 [2]                    | 5.93% [1]                | 2.85%                        | \$158,239 [8]                   |
| 2.       | Equity                                 | 52.00%                          | 2,890,822 [2]                      | 1.65% [6]                | 0.86%                        | 47,600 [9]                      |
| 3.       | Total                                  | 100.00%                         | \$5,559,273 [3]                    |                          | 3.71%                        | \$205,839 [10]                  |
|          | <b>Company Proposed Rates:</b>         |                                 |                                    |                          |                              |                                 |
| 4.       | Debt                                   | 48.00%                          | \$2,668,451 [4]                    | 5.93% [1]                | 2.85%                        | \$158,239 [8]                   |
| 5.       | Equity                                 | 52.00%                          | 2,890,822 [4]                      | 10.89% [6]               | 5.66%                        | 314,881 [11]                    |
| 6.       | Total                                  | 100.00%                         | \$5,559,273 [3]                    |                          | 8.51%                        | \$473,120 [12]                  |
|          | <b>Public Staff Recommended Rates:</b> |                                 |                                    |                          |                              |                                 |
| 7.       | Debt                                   | 48.00%                          | \$2,668,451 [5]                    | 5.93% [1]                | 2.85%                        | \$158,239 [8]                   |
| 8.       | Equity                                 | 52.00%                          | 2,890,822 [5]                      | 9.60% [6]                | 4.99%                        | 277,519 [13]                    |
| 9.       | Total                                  | 100.00%                         | \$5,559,273 [3]                    |                          | 7.84%                        | \$435,758 [14]                  |

- [1] Per Joint Stipulation filed on August 7, 2017.  
[2] Column (a) multiplied by Line 3, Column (b).  
[3] Johnson Exhibit I, Schedule 2(d), Column (c), Line 17.  
[4] Column (a) multiplied by Line 6, Column (b).  
[5] Column (a) multiplied by Line 9, Column (b).  
[6] Column (e) divided by Column (b).  
[7] Column (a) multiplied by Column (c).

- [8] Column (b) multiplied by Column (c).  
[9] Line 3 minus Line 1, Column (e).  
[10] Johnson Exhibit I, Schedule 3(d), Column (c), Line 38.  
[11] Line 6 minus Line 4, Column (e).  
[12] Johnson Exhibit I, Schedule 3(d), Column (e), Line 38.  
[13] Line 9 minus Line 7, Column (e).  
[14] Column (b) multiplied by Column (d), Line 9).

CAROLINA WATER SERVICE, INC., OF NC  
Docket No. W-354, Sub 356  
ORIGINAL COST RATE BASE  
For The Test Year Ended December 31, 2016

Johnson Exhibit I  
Schedule 2(a)

CWSNC WATER OPERATIONS

| Line No. | Item   | Amount Per Application<br>(a) | Public Staff Adjustments<br>(b) | [1] | Amount Per Public Staff<br>(c) | [2]  |
|----------|--|-------------------------------|---------------------------------|-----|--------------------------------|------|
| 1.       | Plant in service                               | \$98,097,571                  | \$5,720,252                     |     | \$103,817,823                  | [3]  |
| 2.       | Accumulated depreciation                       | (25,978,450)                  | (440,347)                       |     | (26,418,797)                   | [4]  |
| 3.       | Net plant in service (L1 + L2)                 | 72,119,121                    | 5,279,905                       |     | 77,399,026                     |      |
| 4.       | Cash working capital                           | 1,078,109                     | (43,960)                        |     | 1,034,149                      | [5]  |
| 5.       | Contributions in aid of construction           | (19,250,422)                  | 486,760                         |     | (18,763,662)                   | [6]  |
| 6.       | Advances in aid of construction                | (23,760)                      | 0                               |     | (23,760)                       |      |
| 7.       | Accumulated deferred income taxes              | (5,327,852)                   | (369,144)                       |     | (5,696,996)                    | [7]  |
| 8.       | Customer deposits                              | (169,619)                     | (27,514)                        |     | (197,133)                      | [8]  |
| 9.       | Gain on sale and flow back taxes               | (519,035)                     | 169,230                         |     | (349,805)                      | [9]  |
| 10.      | Plant acquisition adjustment                   | (2,386,479)                   | 81,810                          |     | (2,304,669)                    | [10] |
| 11.      | Excess book value                              | (232,088)                     | 165,650                         |     | (66,438)                       | [11] |
| 12.      | Cost-free capital                              | 0                             | (121,791)                       |     | (121,791)                      | [12] |
| 13.      | Average tax accruals                           | 60,228                        | (127,697)                       |     | (67,469)                       | [13] |
| 14.      | Regulatory liability for excess deferred taxes | (197,164)                     | 0                               |     | (197,164)                      |      |
| 15.      | Deferred charges                               | 1,168,031                     | 47,866                          |     | 1,215,897                      | [14] |
| 16.      | Pro forma plant                                | 4,824,862                     | (4,824,862)                     |     | 0                              |      |
| 17.      | Original cost rate base (Sum of L3 thru L16)   | \$51,143,932                  | \$716,252                       |     | \$51,860,184                   |      |

- [1] Column (c) minus Column (a).  
[2] Column (a) plus Column (b), unless otherwise footnoted.  
[3] Johnson Exhibit I, Schedule 2-1(a), Column (c), Line 3.  
[4] Johnson Exhibit I, Schedule 2-1(a), Column (c), Line 6.  
[5] Johnson Exhibit I, Schedule 2-3, Column (a), Line 4.  
[6] Johnson Exhibit I, Schedule 2-4, Column (c), Line 5.  
[7] Johnson Exhibit I, Schedule 2-5, Column (a), Line 5.  
[8] Johnson Exhibit I, Schedule 2-6, Column (a), Line 3.  
[9] Johnson Exhibit I, Schedule 2-7, Column (a), Line 6.  
[10] Johnson Exhibit I, Schedule 2-8, Column (c), Line 5.  
[11] Johnson Exhibit I, Schedule 2-9, Column (d), Line 7.  
[12] Johnson Exhibit I, Schedule 2-10, Column (a), Line 3.  
[13] Johnson Exhibit I, Schedule 2-3, Column (a), Line 9.  
[14] Johnson Exhibit I, Schedule 2-11, Column (a), Line 4.

OFFICIAL COPY

Sep 19 2017

**CAROLINA WATER SERVICE, INC., OF NC**  
Docket No. W-354, Sub 356  
**ORIGINAL COST RATE BASE**  
For The Test Year Ended December 31, 2016

Johnson Exhibit I  
Schedule 2(b)

**CWSNC SEWER OPERATIONS**

| Line No. | Item   | Amount Per Application<br>(a) | Public Staff Adjustments<br>(b) | [1] | Amount Per Public Staff<br>(c) | [2]  |
|----------|--|-------------------------------|---------------------------------|-----|--------------------------------|------|
| 1.       | Plant in service                               | \$77,801,962                  | \$2,469,614                     |     | \$80,271,576                   | [3]  |
| 2.       | Accumulated depreciation                       | (18,908,391)                  | (558,333)                       |     | (19,466,724)                   | [4]  |
| 3.       | Net plant in service (L1 + L2)                 | 58,893,571                    | 1,911,281                       |     | 60,804,852                     |      |
| 4.       | Cash working capital                           | 775,203                       | 824                             |     | 776,027                        | [5]  |
| 5.       | Contributions in aid of construction           | (19,151,675)                  | 353,325                         |     | (18,798,350)                   | [6]  |
| 6.       | Advances in aid of construction                | (9,180)                       | 0                               |     | (9,180)                        |      |
| 7.       | Accumulated deferred income taxes              | (3,210,139)                   | (274,731)                       |     | (3,484,870)                    | [7]  |
| 8.       | Customer deposits                              | (100,204)                     | (16,253)                        |     | (116,457)                      | [8]  |
| 9.       | Gain on sale and flow back taxes               | (256,762)                     | 86,210                          |     | (170,552)                      | [9]  |
| 10.      | Plant acquisition adjustment                   | 236,753                       | 23,020                          |     | 259,773                        | [10] |
| 11.      | Excess book value                              | (295,553)                     | 197,409                         |     | (98,144)                       | [11] |
| 12.      | Cost-free capital                              | 0                             | (139,708)                       |     | (139,708)                      | [12] |
| 13.      | Average tax accruals                           | 36,268                        | (76,995)                        |     | (40,727)                       | [13] |
| 14.      | Regulatory liability for excess deferred taxes | (122,016)                     | 0                               |     | (122,016)                      |      |
| 15.      | Deferred charges                               | 839,016                       | (671,294)                       |     | 167,722                        | [14] |
| 16.      | Pro forma plant                                | 3,479,209                     | (3,479,209)                     |     | 0                              |      |
| 17.      | Original cost rate base (Sum of L3 thru L16)   | \$41,114,491                  | (\$2,085,122)                   |     | \$39,028,369                   |      |

- [1] Column (c) minus Column (a).  
[2] Column (a) plus Column (b), unless otherwise footnoted.  
[3] Johnson Exhibit I, Schedule 2-1(b), Column (c), Line 3.  
[4] Johnson Exhibit I, Schedule 2-1(b), Column (c), Line 6.  
[5] Johnson Exhibit I, Schedule 2-3, Column (b), Line 4.  
[6] Johnson Exhibit I, Schedule 2-4, Column (f), Line 5.  
[7] Johnson Exhibit I, Schedule 2-5, Column (b), Line 5.  
[8] Johnson Exhibit I, Schedule 2-6, Column (b), Line 3.  
[9] Johnson Exhibit I, Schedule 2-7, Column (b), Line 6.  
[10] Johnson Exhibit I, Schedule 2-8, Column (f), Line 5.  
[11] Johnson Exhibit I, Schedule 2-9, Column (d), Line 12.  
[12] Johnson Exhibit I, Schedule 2-10, Column (b), Line 3.  
[13] Johnson Exhibit I, Schedule 2-3, Column (b), Line 9.  
[14] Johnson Exhibit I, Schedule 2-11, Column (b), Line 4.

OFFICIAL COPY

Sep 19 2017

**CAROLINA WATER SERVICE, INC., OF NC**  
Docket No. W-354, Sub 356  
**ORIGINAL COST RATE BASE**  
For The Test Year Ended December 31, 2016  
**BRADFIELD/FAIRFIELD WATER OPERATIONS**

Johnson Exhibit I  
Schedule 2(c)

| Line No. | Item   | Amount Per Application<br>(a) | Public Staff Adjustments<br>(b) | [1] | Amount Per Public Staff<br>(c) | [2]  |
|----------|--|-------------------------------|---------------------------------|-----|--------------------------------|------|
| 1.       | Plant in service                               | \$5,184,997                   | \$77,407                        |     | \$5,262,404                    | [3]  |
| 2.       | Accumulated depreciation                       | (1,833,158)                   | 92,007                          |     | (1,741,151)                    | [4]  |
| 3.       | Net plant in service (L1 + L2)                 | 3,351,839                     | 169,414                         |     | 3,521,253                      |      |
| 4.       | Cash working capital                           | 84,806                        | (4,771)                         |     | 80,035                         | [5]  |
| 5.       | Contributions in aid of construction           | (1,153,155)                   | 22,145                          |     | (1,131,010)                    | [6]  |
| 6.       | Advances in aid of construction                | 0                             | 0                               |     | 0                              |      |
| 7.       | Accumulated deferred income taxes              | (725,853)                     | 38,477                          |     | (687,376)                      | [7]  |
| 8.       | Customer deposits                              | (15,187)                      | (2,279)                         |     | (17,466)                       | [8]  |
| 9.       | Gain on sale and flow back taxes               | 0                             | 0                               |     | 0                              |      |
| 10.      | Plant acquisition adjustment                   | (10,498)                      | (5,950)                         |     | (16,448)                       | [9]  |
| 11.      | Excess book value                              | 0                             | 0                               |     | 0                              |      |
| 12.      | Cost-free capital                              | 0                             | 0                               |     | 0                              |      |
| 13.      | Average tax accruals                           | 3,511                         | (7,928)                         |     | (4,417)                        | [10] |
| 14.      | Regulatory liability for excess deferred taxes | (23,008)                      | 0                               |     | (23,008)                       |      |
| 15.      | Deferred charges                               | 156,676                       | (47,474)                        |     | 109,202                        | [11] |
| 16.      | Pro forma plant                                | 153,728                       | (153,728)                       |     | 0                              |      |
| 17.      | Original cost rate base (Sum of L3 thru L16)   | \$1,822,859                   | \$7,906                         |     | \$1,830,765                    |      |

- [1] Column (c) minus Column (a).  
[2] Column (a) plus Column (b), unless otherwise footnoted.  
[3] Johnson Exhibit I, Schedule 2-1(c), Column (c), Line 3.  
[4] Johnson Exhibit I, Schedule 2-1(c), Column (c), Line 6.  
[5] Johnson Exhibit I, Schedule 2-3, Column (c), Line 4.  
[6] Johnson Exhibit I, Schedule 2-4, Column (f), Line 5.  
[7] Johnson Exhibit I, Schedule 2-5, Column (c), Line 5.  
[8] Johnson Exhibit I, Schedule 2-6, Column (c), Line 3.  
[9] Johnson Exhibit I, Schedule 2-8, Column (f), Line 5.  
[10] Johnson Exhibit I, Schedule 2-3, Column (c), Line 9.  
[11] Johnson Exhibit I, Schedule 2-11, Column (c), Line 4.

OFFICIAL COPY

Sep 19 2017

CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 356

ORIGINAL COST RATE BASE

For The Test Year Ended December 31, 2016

Johnson Exhibit I  
Schedule 2(d)BRADFIELD/FAIRFIELD SEWER OPERATIONS

| Line<br>No. | Item   | Amount Per<br>Application<br>(a) | Public Staff<br>Adjustments<br>(b) | [1] | Amount Per<br>Public Staff<br>(c) | [2]  |
|-------------|--|----------------------------------|------------------------------------|-----|-----------------------------------|------|
| 1.          | Plant in service                               | \$11,919,282                     | \$662,004                          |     | \$12,581,286                      | [3]  |
| 2.          | Accumulated depreciation                       | (3,216,547)                      | 220,511                            |     | (2,996,036)                       | [4]  |
| 3.          | Net plant in service (L1 + L2)                 | 8,702,735                        | 882,515                            |     | 9,585,250                         |      |
| 4.          | Cash working capital                           | 118,926                          | (8,732)                            |     | 110,194                           | [5]  |
| 5.          | Contributions in aid of construction           | (4,444,585)                      | 102,776                            |     | (4,341,809)                       | [6]  |
| 6.          | Advances in aid of construction                | 0                                | 0                                  |     | 0                                 |      |
| 7.          | Accumulated deferred income taxes              | (887,115)                        | 44,707                             |     | (842,408)                         | [7]  |
| 8.          | Customer deposits                              | (17,461)                         | (2,619)                            |     | (20,080)                          | [8]  |
| 9.          | Gain on sale and flow back taxes               | 0                                | 0                                  |     | 0                                 |      |
| 10.         | Plant acquisition adjustment                   | 1,058,262                        | (41,156)                           |     | 1,017,106                         | [9]  |
| 11.         | Excess book value                              | 0                                | 0                                  |     | 0                                 |      |
| 12.         | Cost-free capital                              | 0                                | 0                                  |     | 0                                 |      |
| 13.         | Average tax accruals                           | 4,211                            | (9,453)                            |     | (5,242)                           | [10] |
| 14.         | Regulatory liability for excess deferred taxes | (27,756)                         | 0                                  |     | (27,756)                          |      |
| 15.         | Deferred charges                               | 93,017                           | (8,999)                            |     | 84,018                            | [11] |
| 16.         | Pro forma plant                                | 508,800                          | (508,800)                          |     | 0                                 |      |
| 17.         | Original cost rate base (Sum of L3 thru L16)   | \$5,109,034                      | \$450,239                          |     | \$5,559,273                       |      |

[1] Column (c) minus Column (a).

[2] Column (a) plus Column (b), unless otherwise footnoted.

[3] Johnson Exhibit I, Schedule 2-1(d), Column (c), Line 3.

[4] Johnson Exhibit I, Schedule 2-1(d), Column (c), Line 6.

[5] Johnson Exhibit I, Schedule 2-3, Column (d), Line 4.

[6] Johnson Exhibit I, Schedule 2-4, Column (I), Line 5.

[7] Johnson Exhibit I, Schedule 2-5, Column (d), Line 5.

[8] Johnson Exhibit I, Schedule 2-6, Column (d), Line 3.

[9] Johnson Exhibit I, Schedule 2-8, Column (I), Line 5.

[10] Johnson Exhibit I, Schedule 2-3, Column (d), Line 9.

[11] Johnson Exhibit I, Schedule 2-11, Column (d), Line 4.

CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 356

CALCULATION OF PLANT IN SERVICE AND  
ACCUMULATED DEPRECIATION

For The Test Year Ended December 31, 2016

Johnson Exhibit I  
Schedule 2-1(a)CWSNC WATER OPERATIONS

| Line<br>No. | Item   | Amount Per<br>Application<br>(a) | Public Staff<br>Adjustments<br>(b) | Amount Per<br>Public Staff<br>(c) | [1]<br>[2] |
|-------------|--|----------------------------------|------------------------------------|-----------------------------------|------------|
|             | <u>Plant In Service:</u>                       |                                  |                                    |                                   |            |
| 1.          | Direct plant in service                        | \$91,921,264                     | \$5,387,267                        | \$97,308,531                      | [3]        |
|             | Allocation of common plant in service:         |                                  |                                    |                                   |            |
| 2.          | WSC cost center                                | 6,176,305                        | 332,987                            | 6,509,292                         | [4]        |
| 3.          | Total plant in service (Sum of L1 thru L2)     | <u>\$98,097,569</u>              | <u>\$5,720,254</u>                 | <u>\$103,817,823</u>              |            |
|             | <u>Accumulated Depreciation:</u>               |                                  |                                    |                                   |            |
| 4.          | Direct accumulated depreciation                | (\$20,832,123)                   | (\$424,371)                        | (\$21,256,494)                    | [5]        |
|             | Allocation of common accumulated depreciation: |                                  |                                    |                                   |            |
| 5.          | WSC cost center                                | (5,146,326)                      | (15,977)                           | (5,162,303)                       | [4]        |
| 6.          | Total accumulated depr. (Sum of L4 thru L5)    | <u>(\$25,978,449)</u>            | <u>(\$440,348)</u>                 | <u>(\$26,418,797)</u>             |            |

[1] Column (c) minus Column (a), unless otherwise footnoted.

[2] Column (a) plus Column (b), unless otherwise footnoted.

[3] Johnson Exhibit I, Schedule 2-1(a)(1), Column (d), Line 46.

[4] Calculated based on information provided by the Company.

[5] Johnson Exhibit I, Schedule 2-2, Column (a), Line 5.

CAROLINA WATER SERVICE, INC., OF NC  
Docket No. W-354, Sub 356  
**CALCULATION OF PLANT IN SERVICE AND**  
**ACCUMULATED DEPRECIATION**  
**For The Test Year Ended December 31, 2016**

Johnson Exhibit I  
Schedule 2-1(b)

**CWSNC SEWER OPERATIONS**

| Line<br>No. | Item   | Amount Per<br>Application<br>(a) | Public Staff<br>Adjustments<br>(b) | [1] | Amount Per<br>Public Staff<br>(c) | [2] |
|-------------|--|----------------------------------|------------------------------------|-----|-----------------------------------|-----|
|             | <u>Plant In Service:</u>                       |                                  |                                    |     |                                   |     |
| 1.          | Direct plant in service                        | \$74,701,486                     | \$2,277,037                        |     | \$76,978,523                      | [3] |
|             | Allocation of common plant in service:         |                                  |                                    |     |                                   |     |
| 2.          | WSC cost center                                | 3,100,478                        | 192,575                            |     | 3,293,053                         | [4] |
| 3.          | Total plant in service (Sum of L1 thru L2)     | <u>\$77,801,964</u>              | <u>\$2,469,612</u>                 |     | <u>\$80,271,576</u>               |     |
|             | <u>Accumulated Depreciation:</u>               |                                  |                                    |     |                                   |     |
| 4.          | Direct accumulated depreciation                | (\$16,189,533)                   | (\$541,398)                        |     | (\$16,730,931)                    | [5] |
|             | Allocation of common accumulated depreciation: |                                  |                                    |     |                                   |     |
| 5.          | WSC cost center                                | (2,718,858)                      | (16,935)                           |     | (2,735,793)                       | [4] |
| 6.          | Total accumulated depr. (Sum of L4 thru L5)    | <u>(\$18,908,391)</u>            | <u>(\$558,333)</u>                 |     | <u>(\$19,466,724)</u>             |     |

[1] Column (c) minus Column (a), unless otherwise footnoted.

[2] Column (a) plus Column (b), unless otherwise footnoted.

[3] Johnson Exhibit I, Schedule 2-1(b)(1), Column (d), Line 58.

[4] Calculated based on information provided by the Company.

[5] Johnson Exhibit I, Schedule 2-2, Column (b), Line 5.

OFFICIAL COPY

Sep 19 2017



CAROLINA WATER SERVICE, INC., OF NC  
Docket No. W-354, Sub 356  
**CALCULATION OF PLANT IN SERVICE AND**  
**ACCUMULATED DEPRECIATION**  
**For The Test Year Ended December 31, 2016**  
**BRADFIELD/FAIRFIELD WATER OPERATIONS**

Johnson Exhibit I  
Schedule 2-1(c)

| Line<br>No. | Item   | Amount Per<br>Application<br>(a) | Public Staff<br>Adjustments<br>(b) | [1] | Amount Per<br>Public Staff<br>(c) | [2] |
|-------------|--|----------------------------------|------------------------------------|-----|-----------------------------------|-----|
|             | <u>Plant In Service:</u>                       |                                  |                                    |     |                                   |     |
| 1.          | Direct plant in service                        | \$4,533,163                      | \$33,862                           |     | \$4,567,025                       | [3] |
|             | Allocation of common plant in service:         |                                  |                                    |     |                                   |     |
| 2.          | WSC cost center                                | 651,833                          | 43,546                             |     | 695,379                           | [4] |
| 3.          | Total plant in service (Sum of L1 thru L2)     | <u>\$5,184,996</u>               | <u>\$77,408</u>                    |     | <u>\$5,262,404</u>                |     |
|             | <br>   |                                  |                                    |     |                                   |     |
| 4.          | Direct accumulated depreciation                | (\$1,298,149)                    | \$92,207                           |     | (\$1,205,942)                     | [5] |
|             | Allocation of common accumulated depreciation: |                                  |                                    |     |                                   |     |
| 5.          | WSC cost center                                | (535,009)                        | (200)                              |     | (535,209)                         | [4] |
| 6.          | Total accumulated depr. (Sum of L4 thru L5)    | <u>(\$1,833,158)</u>             | <u>\$92,007</u>                    |     | <u>(\$1,741,151)</u>              |     |

[1] Column (c) minus Column (a), unless otherwise footnoted.

[2] Column (a) plus Column (b), unless otherwise footnoted.

[3] Johnson Exhibit I, Schedule 2-1(c)(1), Column (d), Line 46.

[4] Calculated based on information provided by the Company.

[5] Johnson Exhibit I, Schedule 2-2, Column (c), Line 5.

CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 356

CALCULATION OF PLANT IN SERVICE AND  
ACCUMULATED DEPRECIATION

For The Test Year Ended December 31, 2016

BRADFIELD/FAIRFIELD SEWER OPERATIONSJohnson Exhibit I  
Schedule 2-1(d)

| Line<br>No. | Item   | Amount Per<br>Application<br>(a) | Public Staff<br>Adjustments<br>(b) | [1] | Amount Per<br>Public Staff<br>(c) | [2] |
|-------------|--|----------------------------------|------------------------------------|-----|-----------------------------------|-----|
|             | <u>Plant In Service:</u>                       |                                  |                                    |     |                                   |     |
| 1.          | Direct plant in service                        | \$11,314,609                     | \$611,582                          |     | \$11,926,191                      | [3] |
|             | Allocation of common plant in service:         |                                  |                                    |     |                                   |     |
| 2.          | WSC cost center                                | 604,673                          | 50,422                             |     | 655,095                           | [4] |
| 3.          | Total plant in service (Sum of L1 thru L2)     | <u>\$11,919,282</u>              | <u>\$662,004</u>                   |     | <u>\$12,581,286</u>               |     |
|             | <u>Accumulated Depreciation:</u>               |                                  |                                    |     |                                   |     |
| 4.          | Direct accumulated depreciation                | (\$2,686,301)                    | \$223,767                          |     | (\$2,462,534)                     | [5] |
|             | Allocation of common accumulated depreciation: |                                  |                                    |     |                                   |     |
| 5.          | WSC cost center                                | (530,246)                        | (3,256)                            |     | (533,502)                         | [4] |
| 6.          | Total accumulated depr. (Sum of L4 thru L5)    | <u>(\$3,216,547)</u>             | <u>\$220,511</u>                   |     | <u>(\$2,996,036)</u>              |     |

[1] Column (c) minus Column (a), unless otherwise footnoted.

[2] Column (a) plus Column (b), unless otherwise footnoted.

[3] Johnson Exhibit I, Schedule 2-1(d)(1), Column (d), Line 58.

[4] Calculated based on information provided by the Company.

[5] Johnson Exhibit I, Schedule 2-2, Column (d), Line 5.

**CAROLINA WATER SERVICE, INC., OF NC**  
Docket No. W-354, Sub 356  
**CALCULATION OF DIRECT PLANT IN SERVICE**  
For The Test Year Ended December 31, 2016

Johnson Exhibit I  
Schedule 2-1(a)(1)

**CWSNC WATER OPERATIONS**

| Line No. | Account No. | Item  | Amount Per Application [1] | Public Staff. Adjustments [2] | Actual Plant Additions [1] | Amount Per Public Staff [3] |
|----------|-------------|---|----------------------------|-------------------------------|----------------------------|-----------------------------|
|          |             |   | (a)                        | (b)                           | (c)                        | (d)                         |
| 1.       | 1020        | Organization                                | \$464,069                  | \$0                           | \$0                        | \$464,069                   |
| 2.       | 1025        | Franchises                                  | 111,898                    | 0                             | 0                          | 111,898                     |
| 3.       | 1030        | Land & land rights pump                     | 71,187                     | 0                             | 0                          | 71,187                      |
| 4.       | 1035        | Land & land rights water tr.                | 357,109                    | 0                             | 0                          | 357,109                     |
| 5.       | 1040        | Land & land rights trans.                   | 1,914                      | 0                             | 0                          | 1,914                       |
| 6.       | 1045        | Land & land rights gen. plt.                | 542,749                    | 0                             | 0                          | 542,749                     |
| 7.       | 1050        | Struct & improv. src. supply                | 4,007,867                  | 0                             | 249,496                    | 4,257,363                   |
| 8.       | 1055        | Struct & improv. wtr. trt. plt.             | 1,912,969                  | 0                             | 97,427                     | 1,949,796                   |
| 9.       | 1050        | Struct & improv. trans. dist.               | 201,411                    | 0                             | 19,009                     | 220,420                     |
| 10.      | 1065        | Struct & improv. gen. plt.                  | 316,884                    | 0                             | 0                          | 316,884                     |
| 11.      | 1070        | Collecting reservoirs                       | 7,083                      | 0                             | 5,647                      | 12,730                      |
| 12.      | 1080        | Wells & springs                             | 19,280,072                 | 0                             | 450,228                    | 19,730,300                  |
| 13.      | 1035        | Infiltration gallery                        | 45,185                     | 0                             | 0                          | 45,185                      |
| 14.      | 1090        | Supply mains                                | 450,029                    | 0                             | 8,150                      | 458,179                     |
| 15.      | 1095        | Power generation equip.                     | 69,489                     | 0                             | 50,632                     | 120,121                     |
| 16.      | 1100        | Electric pump equip. src. plt.              | 2,903,062                  | 0                             | 76,315                     | 2,379,577                   |
| 17.      | 1105        | Electric pump equip. wtp.                   | 7,465,969                  | 0                             | 469,307                    | 7,935,276                   |
| 18.      | 1110        | Electric pump equip. trans.                 | 2,025,392                  | 0                             | 111,207                    | 2,136,599                   |
| 19.      | 1115        | Water treatment equip.                      | 3,658,536                  | 0                             | 106,398                    | 3,764,934                   |
| 20.      | 1120        | Dist. resv. & standpipes                    | 7,242,184                  | 0                             | 304,957                    | 7,547,141                   |
| 21.      | 1125        | Trans. & distr. mains                       | 28,127,894                 | 0                             | 1,885,628                  | 30,013,522                  |
| 22.      | 1130        | Service lines                               | 10,707,290                 | 0                             | 346,212                    | 11,053,502                  |
| 23.      | 1135        | Meters                                      | 4,046,614                  | 0                             | 1,073,549                  | 5,120,163                   |
| 24.      | 1140        | Meter installations                         | 1,146,774                  | 0                             | 15,628                     | 1,162,402                   |
| 25.      | 1145        | Hydrants                                    | 888,051                    | 0                             | 259,854                    | 1,147,905                   |
| 26.      | 1150        | Backflow prevention devic.                  | 23,221                     | 0                             | 450                        | 23,671                      |
| 27.      | 1160        | Other plt. & misc. equip. src. su.          | 260                        | 0                             | 0                          | 260                         |
| 28.      | 1165        | Other plt. & misc. equip. wtp.              | 6,262                      | 0                             | 0                          | 6,262                       |
| 29.      | 1175        | Office struct & improv.                     | 95,787                     | 0                             | 0                          | 95,787                      |
| 30.      | 1180        | Office furn. & equip.                       | 351,873                    | 0                             | 1,385                      | 353,258                     |
| 31.      | 1185        | Stores equipment                            | 1,625                      | 0                             | 1,853                      | 3,478                       |
| 32.      | 1190        | Tool shop & misc. equip.                    | 1,335,888                  | 0                             | 4,676                      | 1,340,564                   |
| 33.      | 1195        | Laboratory equipment                        | 149,151                    | 0                             | 1,707                      | 150,858                     |
| 34.      | 1200        | Power operated equip.                       | 304,570                    | 0                             | 3,080                      | 307,450                     |
| 35.      | 1205        | Communication equip.                        | 320,956                    | 0                             | 0                          | 320,956                     |
| 36.      | 1210        | Misc. equipment                             | 183,506                    | 0                             | 0                          | 183,506                     |
| 37.      | 1215        | Water plant allocated                       | 207,809                    | 0                             | 0                          | 207,809                     |
| 38.      | 1220        | Other tangible plt. water                   | 36,650                     | 0                             | 0                          | 36,650                      |
| 39.      | 1555        | Transportation equip.                       | 0                          | 0                             | 0                          | 0                           |
| 40.      | 1580        | Mainframe computer - wtr                    | 0                          | 0                             | 0                          | 0                           |
| 41.      | 1585        | Mini computer - wtr                         | (7,037)                    | 0                             | 0                          | (7,037)                     |
| 42.      | 1590        | Comp. system cost - wtr                     | 59,862                     | 0                             | 0                          | 59,862                      |
| 43.      | 1595        | Micro system cost - wtr                     | 0                          | 0                             | 0                          | 0                           |
| 44.      | 1805        | Plt. held for future use                    | 0                          | (95,528)                      | 0                          | (95,528)                    |
| 45.      |             | Pro forma plant additions                   | 0                          | 0                             | 0                          | 0                           |
| 46.      |             | Total plant in service [Sum of L1 thru L45] | <u>\$91,921,264</u>        | <u>(\$95,528)</u>             | <u>\$5,482,795</u>         | <u>\$97,308,531</u>         |

[1] Per examination of Company's financial records.

[2] Johnson Exhibit I, Schedule 2-1(a)(2).

[3] Sum of Column (a) through Column (c).

**CAROLINA WATER SERVICE, INC., OF NC**  
Docket No. W-354, Sub 356  
**CALCULATION OF DIRECT PLANT IN SERVICE**  
For The Test Year Ended December 31, 2016

Johnson Exhibit 1  
Schedule 2-1(b)(1)

**CWSNC SEWER OPERATIONS**

| Line No. | Account No. | Item  | Amount Per Application [1]<br>(a) | Public Staff Adjustments [2]<br>(b) | Actual Plant Additions [1]<br>(c) | Amount Per Public Staff [3]<br>(d) |
|----------|-------------|---|-----------------------------------|-------------------------------------|-----------------------------------|------------------------------------|
| 1.       | 1245        | Organization                                | \$907,337                         | \$0                                 | \$0                               | \$907,337                          |
| 2.       | 1250        | Franchises intang. pit.                     | 127,476                           | 0                                   | 0                                 | 127,476                            |
| 3.       | 1270        | Land & land rights trmnt pit                | 39,167                            | 0                                   | 0                                 | 39,167                             |
| 4.       | 1275        | Land & land rights reclaim.                 | 1,150                             | 0                                   | 0                                 | 1,150                              |
| 5.       | 1285        | Land & land rights gen. pit.                | 213,811                           | 0                                   | 0                                 | 213,811                            |
| 6.       | 1290        | Struct/improv. coll. pit.                   | 67,055                            | 0                                   | 0                                 | 67,055                             |
| 7.       | 1295        | Struct/improv. pump pit. ls.                | 6,123,401                         | 0                                   | 146,883                           | 6,270,284                          |
| 8.       | 1300        | Struct/improv. treat. pit.                  | 16,849,416                        | 0                                   | 1,663,533                         | 18,512,949                         |
| 9.       | 1305        | Struct/improv. reclaim. wtp.                | 3,271                             | 0                                   | 0                                 | 3,271                              |
| 10.      | 1310        | Struct/improv. reclaim. wtr.                | 179,730                           | 0                                   | 0                                 | 179,730                            |
| 11.      | 1315        | Struct/improv. gen. pit.                    | 1,616,374                         | 0                                   | 28,181                            | 1,644,555                          |
| 12.      | 1320        | Power gen. equip. coll. pit.                | 0                                 | 0                                   | 0                                 | 0                                  |
| 13.      | 1325        | Power gen. equip. pump pit.                 | 51,908                            | 0                                   | 251                               | 52,159                             |
| 14.      | 1330        | Power gen. equip. treat. pit.               | 154,514                           | 0                                   | 76,957                            | 231,471                            |
| 15.      | 1345        | Sewer force main/serv. lin.                 | 3,511,244                         | 0                                   | 6,246                             | 3,517,490                          |
| 16.      | 1350        | Sewer gravity main                          | 15,755,232                        | 0                                   | 159,667                           | 15,914,899                         |
| 17.      | 1353        | Manholes                                    | 668,596                           | 0                                   | 37,145                            | 705,741                            |
| 18.      | 1355        | Special coll. structures                    | 6,502                             | 0                                   | 0                                 | 6,502                              |
| 19.      | 1350        | Services to customers                       | 1,212,279                         | 0                                   | 88,700                            | 1,300,979                          |
| 20.      | 1355        | Flow measure devices                        | 78,364                            | 0                                   | 19,034                            | 97,398                             |
| 21.      | 1370        | Flow measure install                        | 958                               | 0                                   | 0                                 | 958                                |
| 22.      | 1375        | Receiving wells                             | 87,490                            | 0                                   | 1,116                             | 88,606                             |
| 23.      | 1380        | Pumping equipment pump pit.                 | 3,127,048                         | 0                                   | 193,157                           | 3,320,205                          |
| 24.      | 1385        | Pumping equipment reclaim.                  | 22,401                            | 0                                   | 4,262                             | 26,663                             |
| 25.      | 1390        | Pumping equipment rel. wtr.                 | 23,026                            | 0                                   | 6,999                             | 30,025                             |
| 26.      | 1395        | Treat./disp. equip. lagoon                  | 578,675                           | 0                                   | 961                               | 579,636                            |
| 27.      | 1400        | Treat./disp. equip. trt. pit.               | 18,478,971                        | 0                                   | 210,782                           | 18,689,753                         |
| 28.      | 1405        | Treat./disp. equip. rct. wtp.               | 13,251                            | 0                                   | 0                                 | 13,251                             |
| 29.      | 1410        | Plant sewers treat. pit.                    | 3,322,583                         | 0                                   | 6,472                             | 3,329,055                          |
| 30.      | 1415        | Plant sewers reclaim wtp.                   | 5,155                             | 0                                   | 0                                 | 5,155                              |
| 31.      | 1420        | Outfall lines                               | 98,304                            | 0                                   | 0                                 | 98,304                             |
| 32.      | 1425        | Other pit. tangible                         | 3,676                             | 0                                   | 0                                 | 3,676                              |
| 33.      | 1430        | Other pit. collection                       | 21,142                            | 0                                   | 0                                 | 21,142                             |
| 34.      | 1435        | Other pit. pump                             | 47,859                            | 0                                   | 272                               | 48,131                             |
| 35.      | 1440        | Other pit. treatment                        | 36,016                            | 0                                   | 502                               | 36,518                             |
| 36.      | 1445        | Other pit. reclaim wtr. trt.                | 650                               | 0                                   | 0                                 | 650                                |
| 37.      | 1450        | Other pit. reclaim wtr. dis.                | 460                               | 0                                   | 0                                 | 460                                |
| 38.      | 1455        | Office struct & improv.                     | 24,955                            | 0                                   | 1,944                             | 26,899                             |
| 39.      | 1460        | Office furn. & equip.                       | 27,156                            | 0                                   | 562                               | 27,718                             |
| 40.      | 1465        | Stores equipment                            | 3,929                             | 0                                   | 0                                 | 3,929                              |
| 41.      | 1470        | Tool shop & misc. equip.                    | 173,584                           | 0                                   | 6,032                             | 179,616                            |
| 42.      | 1475        | Laboratory equipment                        | 101,338                           | 0                                   | 8,152                             | 109,490                            |
| 43.      | 1480        | Power operated equip.                       | 225,539                           | 0                                   | 123,250                           | 348,789                            |
| 44.      | 1435        | Communication equip.                        | 73,595                            | 0                                   | 0                                 | 73,595                             |
| 45.      | 1490        | Misc equip. sewer                           | 18,771                            | 0                                   | 334                               | 19,105                             |
| 46.      | 1495        | Sewer plant allocated                       | 526,952                           | 0                                   | 0                                 | 526,952                            |
| 47.      | 1500        | Other tangible pit. sewer                   | 1,776                             | 0                                   | 0                                 | 1,776                              |
| 48.      | 1535        | Reuse dist. reservoirs                      | 3,417                             | 0                                   | 0                                 | 3,417                              |
| 49.      | 1540        | Reuse transmission & dist.                  | 54,765                            | 0                                   | 251                               | 55,016                             |
| 50.      | 1555        | Transportation equip.                       | 0                                 | 0                                   | 0                                 | 0                                  |
| 51.      | 1575        | Desktop computer - wtr                      | 0                                 | 0                                   | 0                                 | 0                                  |
| 52.      | 1580        | Mainframe computer - wtr                    | 0                                 | 0                                   | 0                                 | 0                                  |
| 53.      | 1585        | Mini computer - wtr                         | (4,157)                           | 0                                   | 0                                 | (4,157)                            |
| 54.      | 1590        | Comp. system cost - wtr                     | 35,364                            | 0                                   | 0                                 | 35,364                             |
| 55.      | 1595        | Micro system cost - wtr                     | 0                                 | 0                                   | 0                                 | 0                                  |
| 56.      | 1805        | Pit. held for future use                    | 0                                 | (514,608)                           | 0                                 | (514,608)                          |
| 57.      |             | Pro forma plant additions                   | 0                                 | 0                                   | 0                                 | 0                                  |
| 58.      |             | Total plant in service (Sum of L1 thru L57) | \$74,701,486                      | (\$514,608)                         | \$2,791,645                       | \$76,978,523                       |

[1] Per examination of Company's financial records.

[2] Johnson Exhibit 1, Schedule 2-1(b)(2).

[3] Sum of Column (a) through Column (c).

## CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 356

CALCULATION OF DIRECT PLANT IN SERVICE  
For The Test Year Ended December 31, 2016

## BRADFELD/FAIRFIELD WATER OPERATIONS

Johnson Exhibit I  
Schedule 2-1(c)(1)

| Line No. | Account No. | Item  | Amount Per Application (a) | Public Staff Adjustments (b) | Actual Plant Additions (c) | Amount Per Public Staff (d) |
|----------|-------------|---|----------------------------|------------------------------|----------------------------|-----------------------------|
|          |             |   | (1)                        |                              | (1)                        | (2)                         |
| 1.       | 1020        | Organization                                | \$94,306                   | \$0                          | \$0                        | \$94,306                    |
| 2.       | 1025        | Franchises                                  | 29,653                     | 0                            | 0                          | 29,653                      |
| 3.       | 1030        | Land & land rights pump                     | 0                          | 0                            | 0                          | 0                           |
| 4.       | 1035        | Land & land rights water tr.                | 0                          | 0                            | 0                          | 0                           |
| 5.       | 1040        | Land & land rights trans.                   | 0                          | 0                            | 0                          | 0                           |
| 6.       | 1045        | Land & land rights gen. plt.                | 434                        | 0                            | 0                          | 434                         |
| 7.       | 1050        | Struct & improv. src. supply                | 114,414                    | 0                            | 12,359                     | 126,773                     |
| 8.       | 1055        | Struct & improv. wtr. trt. plt.             | 50,767                     | 0                            | 477                        | 51,244                      |
| 9.       | 1060        | Struct & improv. trans. dist.               | (200)                      | 0                            | 651                        | 451                         |
| 10.      | 1065        | Struct & improv. gen. plt.                  | 1,271                      | 0                            | 400                        | 1,671                       |
| 11.      | 1070        | Collecting reservoirs                       | 0                          | 0                            | 0                          | 0                           |
| 12.      | 1080        | Wells & springs                             | 474,266                    | 0                            | 759                        | 475,025                     |
| 13.      | 1095        | Infiltration gallery                        | 0                          | 0                            | 0                          | 0                           |
| 14.      | 1090        | Supply mains                                | 604                        | 0                            | 0                          | 604                         |
| 15.      | 1095        | Power generation equip.                     | 0                          | 0                            | 0                          | 0                           |
| 16.      | 1100        | Electric pump equip. src. plt.              | 34,799                     | 0                            | 1,929                      | 36,728                      |
| 17.      | 1105        | Electric pump equip. wtp.                   | 263,487                    | 0                            | 26,331                     | 289,818                     |
| 18.      | 1110        | Electric pump equip. trans.                 | 9,305                      | 0                            | 4,930                      | 14,235                      |
| 19.      | 1115        | Water treatment equip.                      | 106,650                    | 0                            | 2,642                      | 109,292                     |
| 20.      | 1120        | Dist. resv. & standpipes                    | 632,671                    | 0                            | 23,462                     | 656,133                     |
| 21.      | 1125        | Trans. & distr. mains                       | 1,720,833                  | 0                            | (87,078)                   | 1,633,755                   |
| 22.      | 1130        | Service lines                               | 511,814                    | 0                            | 23,922                     | 535,736                     |
| 23.      | 1135        | Meters                                      | 94,288                     | 0                            | 7,545                      | 101,833                     |
| 24.      | 1140        | Meter installations                         | 119,878                    | 0                            | 3,278                      | 123,156                     |
| 25.      | 1145        | Hydrants                                    | 145,304                    | 0                            | 11,455                     | 156,759                     |
| 26.      | 1150        | Backflow prevention devic.                  | 98                         | 0                            | 0                          | 98                          |
| 27.      | 1160        | Other plt. & misc. equip. src. su.          | 0                          | 0                            | 0                          | 0                           |
| 28.      | 1165        | Other plt. & misc. equip. wtp.              | 0                          | 0                            | 0                          | 0                           |
| 29.      | 1175        | Office struct & improv.                     | 6,790                      | 0                            | 0                          | 6,790                       |
| 30.      | 1180        | Office furn. & equip.                       | 3,730                      | 0                            | 0                          | 3,730                       |
| 31.      | 1185        | Stores equipment                            | 235                        | 0                            | 0                          | 235                         |
| 32.      | 1190        | Tool shop & misc. equip.                    | 87,145                     | 0                            | 790                        | 87,935                      |
| 33.      | 1195        | Laboratory equipment                        | 11,093                     | 0                            | 0                          | 11,093                      |
| 34.      | 1200        | Power operated equip.                       | 1,953                      | 0                            | 0                          | 1,953                       |
| 35.      | 1205        | Communication equip.                        | 17,557                     | 0                            | 0                          | 17,557                      |
| 36.      | 1210        | Misc. equipment                             | 18                         | 0                            | 0                          | 18                          |
| 37.      | 1215        | Water plant allocated                       | 0                          | 0                            | 0                          | 0                           |
| 38.      | 1220        | Other tangible plt. water                   | 0                          | 0                            | 0                          | 0                           |
| 39.      | 1555        | Transportation equip.                       | 0                          | 0                            | 0                          | 0                           |
| 40.      | 1530        | Mainframe computer - wtr                    | 0                          | 0                            | 0                          | 0                           |
| 41.      | 1535        | Mini computer - wtr                         | 0                          | 0                            | 0                          | 0                           |
| 42.      | 1590        | Comp. system cost - wtr                     | 0                          | 0                            | 0                          | 0                           |
| 43.      | 1595        | Micro system cost - wtr                     | 0                          | 0                            | 0                          | 0                           |
| 44.      | 1805        | Plt. held for future use                    | 0                          | 0                            | 0                          | 0                           |
| 45.      |             | Pro forma plant additions                   | 0                          | 0                            | 0                          | 0                           |
| 46.      |             | Total plant in service (Sum of 11 thru 145) | \$4,533,163                | \$0                          | \$33,862                   | \$4,567,025                 |

[1] Per examination of Company's financial records.

[2] Sum of Column (a) through Column (c).

CAROLINA WATER SERVICE, INC., OF NC  
Docket No. W-354, Sub 356  
CALCULATION OF DIRECT PLANT IN SERVICE  
For The Test Year Ended December 31, 2016  
BRADFELD/FAIRFIELD SEWER OPERATIONS

Johnson Exhibit I  
Schedule 2-1(d)(1)

| Line No. | Account No. | Item  | Amount Per Application (a) | Public Staff Adjustments (b) | Actual Plant Additions (c) | Amount Per Public Staff (d) |
|----------|-------------|---|----------------------------|------------------------------|----------------------------|-----------------------------|
|          |             |   | [1]                        |                              | [1]                        | [2]                         |
| 1.       | 1245        | Organization                                | \$16,883                   | \$0                          | \$0                        | \$16,883                    |
| 2.       | 1250        | Franchises intang. plt.                     | 20,351                     | 0                            | 0                          | 20,351                      |
| 3.       | 1270        | Land & land rights trmnt plt                | 0                          | 0                            | 0                          | 0                           |
| 4.       | 1275        | Land & land rights reclaim.                 | 0                          | 0                            | 0                          | 0                           |
| 5.       | 1235        | Land & land rights gen. plt.                | 0                          | 0                            | 0                          | 0                           |
| 6.       | 1290        | Struct/improv. coll. plt.                   | 0                          | 0                            | 0                          | 0                           |
| 7.       | 1295        | Struct/improv. pump plt. ls.                | 658,649                    | 0                            | (40,745)                   | 617,904                     |
| 8.       | 1300        | Struct/improv. treat. plt.                  | 1,857,195                  | 0                            | 124,693                    | 1,981,888                   |
| 9.       | 1305        | Struct/improv. reclaim. wtp.                | 0                          | 0                            | 0                          | 0                           |
| 10.      | 1310        | Struct/improv. reclaim. wtr.                | 2,477                      | 0                            | 0                          | 2,477                       |
| 11.      | 1315        | Struct/improv. gen. plt.                    | 229,271                    | 0                            | 5,772                      | 235,043                     |
| 12.      | 1320        | Power gen. equip. coll. plt.                | 0                          | 0                            | 11,076                     | 11,076                      |
| 13.      | 1325        | Power gen. equip. pump plt.                 | 0                          | 0                            | 0                          | 0                           |
| 14.      | 1330        | Power gen. equip. treat. plt.               | 0                          | 0                            | 0                          | 0                           |
| 15.      | 1345        | Sewer force main/serv. lin.                 | 176,991                    | 0                            | 0                          | 176,991                     |
| 16.      | 1350        | Sewer gravity main                          | 4,577,786                  | 0                            | 418,532                    | 4,996,318                   |
| 17.      | 1353        | Manholes                                    | 5,443                      | 0                            | 1,803                      | 7,246                       |
| 18.      | 1355        | Special coll. structures                    | 775                        | 0                            | 0                          | 775                         |
| 19.      | 1360        | Services to customers                       | 30,690                     | 0                            | 4,773                      | 35,463                      |
| 20.      | 1365        | Flow measure devices                        | 17,011                     | 0                            | 0                          | 17,011                      |
| 21.      | 1370        | Flow measure install                        | 0                          | 0                            | 0                          | 0                           |
| 22.      | 1375        | Receiving wells                             | 0                          | 0                            | 0                          | 0                           |
| 23.      | 1380        | Pumping equipment pump plt.                 | 568,793                    | 0                            | 47,591                     | 616,386                     |
| 24.      | 1335        | Pumping equipment reclaim.                  | 234                        | 0                            | 0                          | 234                         |
| 25.      | 1390        | Pumping equipment rcl. wtr.                 | 0                          | 0                            | 0                          | 0                           |
| 26.      | 1395        | Treat./disp. equip. lagoon                  | 56                         | 0                            | 0                          | 56                          |
| 27.      | 1400        | Treat./disp. equip. trt. plt.               | 2,733,215                  | 0                            | (10,740)                   | 2,722,475                   |
| 28.      | 1405        | Treat./disp. equip. rct. wtp.               | 0                          | 0                            | 0                          | 0                           |
| 29.      | 1410        | Plant sewers treat. plt.                    | 358,792                    | 0                            | 2,913                      | 361,705                     |
| 30.      | 1415        | Plant sewers reclaim wtp.                   | 0                          | 0                            | 0                          | 0                           |
| 31.      | 1420        | Outfall lines                               | 13,275                     | 0                            | 3,650                      | 16,925                      |
| 32.      | 1425        | Other plt. tangible                         | 0                          | 0                            | 0                          | 0                           |
| 33.      | 1430        | Other plt. collection                       | (224)                      | 0                            | 0                          | (224)                       |
| 34.      | 1435        | Other plt. pump                             | 2,873                      | 0                            | 0                          | 2,873                       |
| 35.      | 1440        | Other plt. treatment                        | 0                          | 0                            | 0                          | 0                           |
| 36.      | 1445        | Other plt. reclaim wtr. trt.                | 5,189                      | 0                            | 0                          | 5,189                       |
| 37.      | 1450        | Other plt. reclaim wtr. dis.                | 0                          | 0                            | 0                          | 0                           |
| 38.      | 1455        | Office struct & improv.                     | 4,763                      | 0                            | 0                          | 4,763                       |
| 39.      | 1460        | Office furn. & equip.                       | 448                        | 0                            | 0                          | 448                         |
| 40.      | 1465        | Stores equipment                            | 2,752                      | 0                            | 0                          | 2,752                       |
| 41.      | 1470        | Tool shop & misc. equip.                    | 5,331                      | 0                            | 4,428                      | 9,759                       |
| 42.      | 1475        | Laboratory equipment                        | 2,589                      | 0                            | 3,478                      | 6,067                       |
| 43.      | 1480        | Power operated equip.                       | 12,878                     | 0                            | 34,191                     | 47,069                      |
| 44.      | 1485        | Communication equip.                        | 993                        | 0                            | 0                          | 993                         |
| 45.      | 1490        | Misc equip. sewer                           | 8,603                      | 0                            | 0                          | 8,603                       |
| 46.      | 1495        | Sewer plant allocated                       | 0                          | 0                            | 0                          | 0                           |
| 47.      | 1500        | Other tangible plt. sewer                   | 0                          | 0                            | 0                          | 0                           |
| 48.      | 1535        | Reuse dist. reservoirs                      | 2,763                      | 0                            | 0                          | 2,763                       |
| 49.      | 1540        | Reuse transmission & dist.                  | (2,228)                    | 0                            | 167                        | (2,061)                     |
| 50.      | 1555        | Transportation equip.                       | 0                          | 0                            | 0                          | 0                           |
| 51.      | 1575        | Desktop computer - wtr                      | 0                          | 0                            | 0                          | 0                           |
| 52.      | 1580        | Mainframe computer - wtr                    | 0                          | 0                            | 0                          | 0                           |
| 53.      | 1585        | Mini computer - wtr                         | 0                          | 0                            | 0                          | 0                           |
| 54.      | 1570        | Comp. system cost - wtr                     | 0                          | 0                            | 0                          | 0                           |
| 55.      | 1595        | Micro system cost - wtr                     | 0                          | 0                            | 0                          | 0                           |
| 56.      | 1835        | Plt. held for future use                    | 0                          | 0                            | 0                          | 0                           |
| 57.      |             | Pro forma plant additions                   | 0                          | 0                            | 0                          | 0                           |
| 58.      |             | Total plant in service (Sum of 11 thru 157) | \$11,914,609               | \$0                          | \$611,582                  | \$11,926,191                |

[1] Per examination of Company's financial records.  
[2] Sum of Column (a) through Column (c).

CAROLINA WATER SERVICE, INC., OF NC  
Docket No. W-354, Sub 356  
ADJUSTMENT TO DIRECT PLANT IN SERVICE  
For The Test Year Ended December 31, 2016

Johnson Exhibit 1  
Schedule 2-1(a)(2)

CWSNC WATER OPERATIONS

| Line No. | Account No. | Item  | Adjustments [1]<br>(a) | Amount Per Public Staff [1]<br>(b) |
|----------|-------------|---|------------------------|------------------------------------|
| 1.       | 1020        | Organization                                | \$0                    | \$0                                |
| 2.       | 1025        | Franchises                                  | 0                      | 0                                  |
| 3.       | 1030        | Land & land rights pump                     | 0                      | 0                                  |
| 4.       | 1035        | Land & land rights water tr.                | 0                      | 0                                  |
| 5.       | 1040        | Land & land rights trans.                   | 0                      | 0                                  |
| 6.       | 1045        | Land & land rights gen. plt.                | 0                      | 0                                  |
| 7.       | 1050        | Struct & improv. src. supply                | 0                      | 0                                  |
| 8.       | 1055        | Struct & improv. wtr. trt. plt.             | 0                      | 0                                  |
| 9.       | 1060        | Struct & improv. trans. dist.               | 0                      | 0                                  |
| 10.      | 1065        | Struct & improv. gen. plt.                  | 0                      | 0                                  |
| 11.      | 1070        | Collecting reservoirs                       | 0                      | 0                                  |
| 12.      | 1080        | Wells & springs                             | 0                      | 0                                  |
| 13.      | 1085        | Infiltration gallery                        | 0                      | 0                                  |
| 14.      | 1090        | Supply mains                                | 0                      | 0                                  |
| 15.      | 1095        | Power generation equip.                     | 0                      | 0                                  |
| 16.      | 1100        | Electric pump equip. src. plt.              | 0                      | 0                                  |
| 17.      | 1105        | Electric pump equip. wtp.                   | 0                      | 0                                  |
| 18.      | 1110        | Electric pump equip. trans.                 | 0                      | 0                                  |
| 19.      | 1115        | Water treatment equip.                      | 0                      | 0                                  |
| 20.      | 1120        | Dist. resv. & standpipes                    | 0                      | 0                                  |
| 21.      | 1125        | Trans. & distr. mains                       | 0                      | 0                                  |
| 22.      | 1130        | Service lines                               | 0                      | 0                                  |
| 23.      | 1135        | Meters                                      | 0                      | 0                                  |
| 24.      | 1140        | Meter installations                         | 0                      | 0                                  |
| 25.      | 1145        | Hydrants                                    | 0                      | 0                                  |
| 26.      | 1150        | Backflow prevention devic.                  | 0                      | 0                                  |
| 27.      | 1160        | Other plt. & misc. equip. src. su.          | 0                      | 0                                  |
| 28.      | 1165        | Other plt. & misc. equip. wtp.              | 0                      | 0                                  |
| 29.      | 1175        | Office struct & improv.                     | 0                      | 0                                  |
| 30.      | 1180        | Office furn. & equip.                       | 0                      | 0                                  |
| 31.      | 1185        | Stores equipment                            | 0                      | 0                                  |
| 32.      | 1190        | Tool shop & misc. equip.                    | 0                      | 0                                  |
| 33.      | 1195        | Laboratory equipment                        | 0                      | 0                                  |
| 34.      | 1200        | Power operated equip.                       | 0                      | 0                                  |
| 35.      | 1205        | Communication equip.                        | 0                      | 0                                  |
| 36.      | 1210        | Misc. equipment                             | 0                      | 0                                  |
| 37.      | 1215        | Water plant allocated                       | 0                      | 0                                  |
| 38.      | 1220        | Other tangible plt. water                   | 0                      | 0                                  |
| 39.      | 1555        | Transportation equip.                       | 0                      | 0                                  |
| 40.      | 1590        | Mainframe computer - wtr                    | 0                      | 0                                  |
| 41.      | 1585        | Mini computer - wtr                         | 0                      | 0                                  |
| 42.      | 1590        | Comp. system cost - wtr                     | 0                      | 0                                  |
| 43.      | 1585        | Micro system cost - wtr                     | 0                      | 0                                  |
| 44.      | 1805        | Plt. held for future use                    | (95,528)               | (95,528)                           |
| 45.      |             | Pro forma plant additions                   | 0                      | 0                                  |
| 46.      |             | Total plant in service (Sum of L1 thru L45) | <u>(\$95,528)</u>      | <u>(\$95,528)</u>                  |

[1] Per examination of Company's financial records.

CAROLINA WATER SERVICE, INC., OF NC  
Docket No. W-354, Sub 356  
ADJUSTMENT TO DIRECT PLANT IN SERVICE  
For The Test Year Ended December 31, 2016

Johnson Exhibit I  
Schedule 2-1(b)(2)

CWSNCSSEWER OPERATIONS

| Line No. | Account No. | Item  | Adjustments [1]<br>(a) | Amount Per Public Staff [1]<br>(b) |
|----------|-------------|---|------------------------|------------------------------------|
| 1.       | 1245        | Organization                                | \$0                    | \$0                                |
| 2.       | 1250        | Franchises intang. plt.                     | 0                      | 0                                  |
| 3.       | 1270        | Land & land rights trtmt plt                | 0                      | 0                                  |
| 4.       | 1275        | Land & land rights reclaim.                 | 0                      | 0                                  |
| 5.       | 1285        | Land & land rights gen. plt.                | 0                      | 0                                  |
| 6.       | 1290        | Struct/improv. coll. plt.                   | 0                      | 0                                  |
| 7.       | 1295        | Struct/improv. pump plt. ls.                | 0                      | 0                                  |
| 8.       | 1300        | Struct/improv. treat. plt.                  | 0                      | 0                                  |
| 9.       | 1305        | Struct/improv. reclaim. wtr.                | 0                      | 0                                  |
| 10.      | 1310        | Struct/improv. reclaim. wtr.                | 0                      | 0                                  |
| 11.      | 1315        | Struct/improv. gen. plt.                    | 0                      | 0                                  |
| 12.      | 1320        | Power gen. equip. coll. plt.                | 0                      | 0                                  |
| 13.      | 1325        | Power gen. equip. pump plt.                 | 0                      | 0                                  |
| 14.      | 1330        | Power gen. equip. treat. plt.               | 0                      | 0                                  |
| 15.      | 1345        | Sewer force main/serv. lin.                 | 0                      | 0                                  |
| 16.      | 1350        | Sewer gravity main                          | 0                      | 0                                  |
| 17.      | 1353        | Manholes                                    | 0                      | 0                                  |
| 18.      | 1355        | Special coll. structures                    | 0                      | 0                                  |
| 19.      | 1360        | Services to customers                       | 0                      | 0                                  |
| 20.      | 1365        | Flow measure devices                        | 0                      | 0                                  |
| 21.      | 1370        | Flow measure install                        | 0                      | 0                                  |
| 22.      | 1375        | Revolving wells                             | 0                      | 0                                  |
| 23.      | 1380        | Pumping equipment pump plt.                 | 0                      | 0                                  |
| 24.      | 1385        | Pumping equipment reclaim.                  | 0                      | 0                                  |
| 25.      | 1390        | Pumping equipment rcl. wtr.                 | 0                      | 0                                  |
| 26.      | 1395        | Treat./disp. equip. lagoon                  | 0                      | 0                                  |
| 27.      | 1400        | Treat./disp. equip. trt. plt.               | 0                      | 0                                  |
| 28.      | 1405        | Treat./disp. equip. rct. wtr.               | 0                      | 0                                  |
| 29.      | 1410        | Plant sewers treat. plt.                    | 0                      | 0                                  |
| 30.      | 1415        | Plant sewers reclaim wtr.                   | 0                      | 0                                  |
| 31.      | 1420        | Outfall lines                               | 0                      | 0                                  |
| 32.      | 1425        | Other plt. tangible                         | 0                      | 0                                  |
| 33.      | 1430        | Other plt. collection                       | 0                      | 0                                  |
| 34.      | 1435        | Other plt. pump                             | 0                      | 0                                  |
| 35.      | 1440        | Other plt. treatment                        | 0                      | 0                                  |
| 36.      | 1445        | Other plt. reclaim wtr. trt.                | 0                      | 0                                  |
| 37.      | 1450        | Other plt. reclaim wtr. dis.                | 0                      | 0                                  |
| 38.      | 1455        | Office struct & improv.                     | 0                      | 0                                  |
| 39.      | 1460        | Office furn. & equip.                       | 0                      | 0                                  |
| 40.      | 1465        | Stores equipment                            | 0                      | 0                                  |
| 41.      | 1470        | Tool shop & misc. equip.                    | 0                      | 0                                  |
| 42.      | 1475        | Laboratory equipment                        | 0                      | 0                                  |
| 43.      | 1480        | Power operated equip.                       | 0                      | 0                                  |
| 44.      | 1485        | Communication equip.                        | 0                      | 0                                  |
| 45.      | 1490        | Misc equip. sewer                           | 0                      | 0                                  |
| 46.      | 1495        | Sewer plant allocated                       | 0                      | 0                                  |
| 47.      | 1500        | Other tangible plt. sewer                   | 0                      | 0                                  |
| 48.      | 1535        | Reuse dist. reservoirs                      | 0                      | 0                                  |
| 49.      | 1540        | Reuse transmission & dist.                  | 0                      | 0                                  |
| 50.      | 1555        | Transportation equip.                       | 0                      | 0                                  |
| 51.      | 1575        | Desktop computer - wtr                      | 0                      | 0                                  |
| 52.      | 1580        | Mainframe computer - wtr                    | 0                      | 0                                  |
| 53.      | 1585        | Mini computer - wtr                         | 0                      | 0                                  |
| 54.      | 1590        | Comp. system cost - wtr                     | 0                      | 0                                  |
| 55.      | 1595        | Micro system cost - wtr                     | 0                      | 0                                  |
| 56.      | 1805        | Plt. held for future use                    | (514,608)              | (514,608)                          |
| 57.      |             | Pro forma plant additions                   | 0                      | 0                                  |
| 58.      |             | Total plant in service (Sum of L1 thru L57) | <u>(514,608)</u>       | <u>(514,608)</u>                   |

[1] Per examination of Company's financial records.



CAROLINA WATER SERVICE, INC., OF NC  
Docket No. W-354, Sub 356  
**ADJUSTMENT TO DIRECT ACCUMULATED DEPRECIATION**  
**For The Test Year Ended December 31, 2016**

Johnson Exhibit I  
Schedule 2-2

OFFICIAL COPY

Sep 19 2017

| Line<br>No. | Item  | CWSNC<br>Water<br>(a)        | CWSNC<br>Sewer<br>(b)        | BF/FH<br>Water<br>(c)       | BF/FH<br>Sewer<br>(d)       |
|-------------|---|------------------------------|------------------------------|-----------------------------|-----------------------------|
| 1.          | Direct accumulated depreciation per application                             | <u>(\$20,832,123)</u>        | <u>(\$16,189,533)</u>        | <u>(\$1,298,149)</u>        | <u>(\$2,686,301)</u>        |
| 2.          | Adjustment to include actual general ledger A/D additions through 6/30/2017 | (540,624) [1]                | (670,881) [1]                | 95,510 [1]                  | 203,797 [1]                 |
| 3.          | Adjustment to reflect annual level of depreciation                          | <u>116,253 [1]</u>           | <u>129,483 [1]</u>           | <u>(3,303) [1]</u>          | <u>19,970 [1]</u>           |
| 4.          | Adjustment to accumulated depreciation (Sum of L2 + L3)                     | <u>(424,371)</u>             | <u>(541,398)</u>             | <u>92,207</u>               | <u>223,767</u>              |
| 5.          | Direct accumulated depreciation per Public Staff (L1 + L4)                  | <u><u>(\$21,256,494)</u></u> | <u><u>(\$16,730,931)</u></u> | <u><u>(\$1,205,942)</u></u> | <u><u>(\$2,462,534)</u></u> |

[1] Per examination of Company's financial records.

CAROLINA WATER SERVICE, INC., OF NC  
Docket No. W-354, Sub 356  
CALCULATION OF CASH WORKING CAPITAL  
For The Test Year Ended December 31, 2016

Johnson Exhibit I  
Schedule 2-3

| Line No.                     | Item   | CWSNC Water<br>(a) | CWSNC Sewer<br>(b) | BFF/FFH Water<br>(c) | BFF/FFH Sewer<br>(d) |
|------------------------------|--|--------------------|--------------------|----------------------|----------------------|
| <u>Cash Working Capital:</u> |  |                    |                    |                      |                      |
| 1.                           | Maintenance expenses, less purchased water and sewer | \$5,489,958 [1]    | \$4,546,348 [5]    | \$334,880 [9]        | \$528,861 [13]       |
| 2.                           | General expenses                                     | 2,783,236 [2]      | 1,661,866 [6]      | 305,402 [10]         | 352,690 [14]         |
| 3.                           | Total cash working capital expenses (L1 + L2)        | <u>8,273,194</u>   | <u>6,208,214</u>   | <u>640,282</u>       | <u>881,551</u>       |
| 4.                           | Cash working capital (L3 x 1/8)                      | <u>1,034,149</u>   | <u>776,027</u>     | <u>80,035</u>        | <u>110,194</u>       |
| <u>Average Tax Accruals:</u> |  |                    |                    |                      |                      |
| 5.                           | Property taxes                                       | 126,424 [3]        | 74,840 [7]         | 8,414 [11]           | 9,715 [15]           |
| 6.                           | Average accrual (L5 x 1/2)                           | <u>63,212</u>      | <u>37,420</u>      | <u>4,207</u>         | <u>4,858</u>         |
| 7.                           | Regulatory fee                                       | 21,284 [4]         | 16,535 [8]         | 1,048 [12]           | 1,920 [16]           |
| 8.                           | Average accrual (L7 x 1/5)                           | <u>4,257</u>       | <u>3,307</u>       | <u>210</u>           | <u>384</u>           |
| 9.                           | Total tax accrual (L6 + L8)                          | <u>67,469</u>      | <u>40,727</u>      | <u>4,417</u>         | <u>5,242</u>         |
| 10.                          | Total cash working capital (L4 - L9)                 | <u>\$966,680</u>   | <u>\$735,300</u>   | <u>\$75,618</u>      | <u>\$104,952</u>     |

[1] Johnson Exhibit I, Schedule 3(a), Column (c), Line 15 minus Line 7.

[2] Johnson Exhibit I, Schedule 3(a), Column (c), Line 24.

[3] Johnson Exhibit I, Schedule 3(a), Column (c), Line 30.

[4] Johnson Exhibit I, Schedule 3(a), Column (c), Line 32.

[5] Johnson Exhibit I, Schedule 3(b), Column (c), Line 15 minus Line 7.

[6] Johnson Exhibit I, Schedule 3(b), Column (c), Line 24.

[7] Johnson Exhibit I, Schedule 3(b), Column (c), Line 30.

[8] Johnson Exhibit I, Schedule 3(b), Column (c), Line 32.

[9] Johnson Exhibit I, Schedule 3(c), Column (c), Line 15 minus Line 7.

[10] Johnson Exhibit I, Schedule 3(c), Column (c), Line 24.

[11] Johnson Exhibit I, Schedule 3(c), Column (c), Line 30.

[12] Johnson Exhibit I, Schedule 3(c), Column (c), Line 32.

[13] Johnson Exhibit I, Schedule 3(d), Column (c), Line 15 minus Line

[14] Johnson Exhibit I, Schedule 3(d), Column (c), Line 24.

[15] Johnson Exhibit I, Schedule 3(d), Column (c), Line 30.

[16] Johnson Exhibit I, Schedule 3(d), Column (c), Line 32.

CAROLINA WATER SERVICE, INC., OF NC  
Docket No. W-354, Sub 356  
**ADJUSTMENT TO CONTRIBUTIONS IN AID OF  
CONSTRUCTION, NET OF AMORTIZATION**  
For The Test Year Ended December 31, 2016

Johnson Exhibit 1  
Schedule 2-4

| Line<br>No. | Item  | CWSNC Water Operations |                                    |                                     | [2] | CWSNC Sewer Operations |                                    |                                     | [3] |
|-------------|---|------------------------|------------------------------------|-------------------------------------|-----|------------------------|------------------------------------|-------------------------------------|-----|
|             |   | CIAC<br>(a)            | Accumulated<br>Amortization<br>(b) | CIAC, Net of<br>Amortization<br>(c) |     | CIAC<br>(d)            | Accumulated<br>Amortization<br>(e) | CIAC, Net of<br>Amortization<br>(f) |     |
| 1.          | CIAC and accumulated amortization per application                       | <u>(\$28,504,087)</u>  | <u>\$9,253,665</u>                 | <u>(\$19,250,422)</u>               |     | <u>(\$27,984,254)</u>  | <u>\$8,832,580</u>                 | <u>(\$19,151,674)</u>               |     |
| 2.          | Adjustment to include actual general ledger additions through 6/30/2017 | (85,023) [1]           | 341,943 [1]                        | 256,920                             |     | (83,589) [1]           | 307,608 [1]                        | 224,019                             |     |
| 3.          | Adjustment to reflect annual level of amortization                      | <u>0</u>               | <u>229,840</u> [1]                 | <u>229,840</u>                      |     | <u>0</u>               | <u>129,305</u> [1]                 | <u>129,305</u>                      |     |
| 4.          | Adjustment to CIAC (Sum of L2 + L3)                                     | <u>(85,023)</u>        | <u>571,783</u>                     | <u>486,760</u>                      |     | <u>(83,589)</u>        | <u>436,913</u>                     | <u>353,324</u>                      |     |
| 5.          | CIAC per Public Staff (L1 + L4)   | <u>(\$28,589,110)</u>  | <u>\$9,825,448</u>                 | <u>(\$18,763,662)</u>               |     | <u>(\$28,067,843)</u>  | <u>\$9,269,493</u>                 | <u>(\$18,798,350)</u>               |     |

[1] Per examination of Company's financial records.

[2] Column (a) plus Column (b).

[3] Column (d) plus Column (e).

[4] Column (g) plus Column (h).

[5] Column (i) plus Column (k).

OFFICIAL COPY

Sep 19 2017

**CAROLINA WATER SERVICE, INC., OF NC**  
Docket No. W-354, Sub 356  
**ADJUSTMENT TO CONTRIBUTIONS IN AID OF  
CONSTRUCTION, NET OF AMORTIZATION**  
For The Test Year Ended December 31, 2016

Johnson Exhibit I  
Schedule 2-4

| Line<br>No. | Item  | BF/FH Water Operations |                                    |                                     | [4] | BF/FH Sewer Operations |                                    |                                     | [5] |
|-------------|---|------------------------|------------------------------------|-------------------------------------|-----|------------------------|------------------------------------|-------------------------------------|-----|
|             |   | CIAC<br>(g)            | Accumulated<br>Amortization<br>(h) | CIAC, Net of<br>Amortization<br>(i) |     | CIAC<br>(j)            | Accumulated<br>Amortization<br>(k) | CIAC, Net of<br>Amortization<br>(l) |     |
| 1.          | CIAC and accumulated amortization per application                       | <u>(\$2,081,833)</u>   | <u>\$928,678</u>                   | <u>(\$1,153,155)</u>                |     | <u>(\$7,088,979)</u>   | <u>\$2,644,394</u>                 | <u>(\$4,444,585)</u>                |     |
| 2.          | Adjustment to include actual general ledger additions through 6/30/2017 | (5,345) [1]            | 17,655 [1]                         | 12,310                              |     | 0                      | 72,322 [1]                         | 72,322                              |     |
| 3.          | Adjustment to reflect annual level of amortization                      | 0                      | 9,835 [1]                          | 9,835                               |     | 0                      | 30,454 [1]                         | 30,454                              |     |
| 4.          | Adjustment to CIAC (Sum of L2 + L3)                                     | <u>(5,345)</u>         | <u>27,490</u>                      | <u>22,145</u>                       |     | <u>0</u>               | <u>102,776</u>                     | <u>102,776</u>                      |     |
| 5.          | CIAC per Public Staff (L1 + L4)   | <u>(\$2,087,178)</u>   | <u>\$956,168</u>                   | <u>(\$1,131,010)</u>                |     | <u>(\$7,088,979)</u>   | <u>\$2,747,170</u>                 | <u>(\$4,341,809)</u>                |     |

[1] Per examination of Company's financial records.

[2] Column (a) plus Column (b).

[3] Column (d) plus Column (e).

[4] Column (g) plus Column (h).

[5] Column (j) plus Column (k).

Sep 19 2017

OFFICIAL COPY

**CAROLINA WATER SERVICE, INC., OF NC**  
Docket No. W-354, Sub 356  
**ADJUSTMENT TO ACCUMULATED DEFERRED INCOME TAXES**  
For The Test Year Ended December 31, 2016

Johnson Exhibit I  
Schedule 2-5

OFFICIAL COPY

Sep 19 2017

| Line<br>No. | Item  | CWSNC<br>Water<br>(a)       | CWSNC<br>Sewer<br>(b)       | BF/FH<br>Water<br>(c)     | BF/FH<br>Sewer<br>(d)     |
|-------------|---|-----------------------------|-----------------------------|---------------------------|---------------------------|
| 1.          | ADIT per application                                | <u>(\$5,327,852)</u>        | <u>(\$3,210,139)</u>        | <u>(\$725,853)</u>        | <u>(\$887,115)</u>        |
| 2.          | Adjustment for updated unamortized deferred charges | (313,365) [1]               | (242,176) [1]               | 46,343 [1]                | 53,568 [1]                |
| 3.          | Adjustment to include cost centers ADIT             | <u>(55,779) [2]</u>         | <u>(32,555) [2]</u>         | <u>(7,866) [2]</u>        | <u>(8,861) [2]</u>        |
| 4.          | Adjustment to ADIT (L2 + L3)                        | <u>(369,144)</u>            | <u>(274,731)</u>            | <u>38,477</u>             | <u>44,707</u>             |
| 5.          | ADIT per Public Staff (L1 + L4)                     | <u><u>(\$5,696,996)</u></u> | <u><u>(\$3,484,870)</u></u> | <u><u>(\$687,376)</u></u> | <u><u>(\$842,408)</u></u> |

[1] Calculated by Public Staff based on updates to deferred charges.

[2] Per examination of Company's financial records.

CAROLINA WATER SERVICE, INC., OF NC  
 Docket No. W-354, Sub 356  
**ADJUSTMENT TO CUSTOMER DEPOSITS**  
 For The Test Year Ended December 31, 2016

Johnson Exhibit I  
Schedule 2-6

Sep 19 2017 OFFICIAL COPY

| Line<br>No. | Item  | CWSNC<br>Water<br>(a) | CWSNC<br>Sewer<br>(b) | BF/FH<br>Water<br>(c) | BF/FH<br>Sewer<br>(d) |
|-------------|---|-----------------------|-----------------------|-----------------------|-----------------------|
| 1.          | Customer deposits per application                   | (\$169,619)           | (\$100,204)           | (\$15,187)            | (\$17,461)            |
| 2.          | Adjustment to update customer deposits to 6/30/2017 | (27,514) [1]          | (16,253) [1]          | (2,279) [1]           | (2,619) [1]           |
| 3.          | Customer deposits per Public Staff (L1 + L2)        | <u>(\$197,133)</u>    | <u>(\$116,457)</u>    | <u>(\$17,466)</u>     | <u>(\$20,080)</u>     |

Per examination of Company's financial records.

---

**CAROLINA WATER SERVICE, INC., OF NC**


---

Docket No. W-354, Sub 356

**ADJUSTMENT TO GAIN ON SALE**

For The Test Year Ended December 31, 2016

Johnson Exhibit I

Schedule 2-7

| Line<br>No. | Item  | CWSNC<br>Water<br>(a) | CWSNC<br>Sewer<br>(b) |
|-------------|---|-----------------------|-----------------------|
| 1.          | Gain on sale per application                              | <u>(\$519,035)</u>    | <u>(\$256,762)</u>    |
| 2.          | Gain on sale of systems sold to CMUD                      | (500,264) [1]         | (254,849) [1]         |
| 3.          | Less: accumulated amortization                            | <u>347,406 [2]</u>    | <u>176,978 [2]</u>    |
| 4.          | Gain on sale of systems, net of amortization (L2 + L3)    | <u>(152,858)</u>      | <u>(77,871)</u>       |
| 5.          | Gain on sale and flow back of taxes                       | <u>(196,947) [1]</u>  | <u>(92,681) [1]</u>   |
| 6.          | Gain on sale per Public Staff (L4 + L5)                   | <u>(349,805)</u>      | <u>(170,552)</u>      |
| 7.          | Adjustment to gain on sale (L6 - L1)                      | <u>\$169,230</u>      | <u>\$86,210</u>       |
| 8.          | Gain on sale amortization expense per application         | (\$173,012) [1]       | (\$85,587) [1]        |
| 9.          | Gain on sale amortization expense per Public Staff        | <u>(50,953) [3]</u>   | <u>(25,957) [3]</u>   |
| 10.         | Adjustment to gain on sale amortization expense (L9 - L8) | <u>\$122,059</u>      | <u>\$59,630</u>       |

[1] Per examination of Company's financial records.

[2] Line 2 divided by 36 months times 25 months (12/7/2015 thru 12/31/2017).

[3] Line 4 divided by 3 year reamortization period.

**CAROLINA WATER SERVICE, INC., OF NC**  
Docket No. W-354, Sub 356  
**ADJUSTMENT TO PURCHASE ACQUISITION**  
**ADJUSTMENT, NET OF AMORTIZATION**  
For The Test Year Ended December 31, 2016

Johnson Exhibit I  
Schedule 2-8

| Line No. | Item  | CWSNC Water Operations |                                    |                                    | [2] | CWSNC Sewer Operations |                                    |                                    | [3] |
|----------|---|------------------------|------------------------------------|------------------------------------|-----|------------------------|------------------------------------|------------------------------------|-----|
|          |   | PAA<br>(a)             | Accumulated<br>Amortization<br>(b) | PAA, Net of<br>Amortization<br>(c) |     | PAA<br>(d)             | Accumulated<br>Amortization<br>(e) | PAA, Net of<br>Amortization<br>(f) |     |
| 1.       | PAA and accumulated amortization per application                        | (\$4,195,580)          | \$1,809,100                        | (\$2,386,479)                      |     | (\$627,070)            | \$863,822                          | \$236,753                          |     |
| 2.       | Adjustment to include actual general ledger additions through 6/30/2017 | 0                      | 51,160 [1]                         | 51,160                             |     | 0                      | 12,337 [1]                         | 12,337                             |     |
| 3.       | Adjustment to reflect annual level of amortization                      | 0                      | 30,650 [1]                         | 30,650                             |     | 0                      | 10,683 [1]                         | 10,683                             |     |
| 4.       | Adjustment to PAA (Sum of L2 + L3)                                      | 0                      | 81,810                             | 81,810                             |     | 0                      | 23,020                             | 23,020                             |     |
| 5.       | PAA per Public Staff (L1 + L4)  | (\$4,195,580)          | \$1,890,910                        | (\$2,304,669)                      |     | (\$627,070)            | \$886,842                          | \$259,773                          |     |

- [1] Per examination of Company's financial records.  
[2] Column (a) plus Column (b).  
[3] Column (d) plus Column (e).  
[4] Column (g) plus Column (h).  
[5] Column (j) plus Column (k).



**CAROLINA WATER SERVICE, INC., OF NC**  
Docket No. W-354, Sub 356  
**ADJUSTMENT TO PURCHASE ACQUISITION**  
**ADJUSTMENT, NET OF AMORTIZATION**  
For The Test Year Ended December 31, 2016

Johnson Exhibit 1  
Schedule 2-8

| Line No. | Item  | BF/FH Water Operations |                                    |                                    | [4] | BF/FH Sewer Operations |                                    |                                    | [5] |
|----------|---|------------------------|------------------------------------|------------------------------------|-----|------------------------|------------------------------------|------------------------------------|-----|
|          |   | PAA<br>(g)             | Accumulated<br>Amortization<br>(h) | PAA, Net of<br>Amortization<br>(i) |     | PAA<br>(j)             | Accumulated<br>Amortization<br>(k) | PAA, Net of<br>Amortization<br>(l) |     |
| 1.       | PAA and accumulated amortization per application                        | 520,390                | (530,889)                          | (10,498)                           |     | 1,658,577              | (600,315)                          | 1,058,262                          |     |
| 2.       | Adjustment to include actual general ledger additions through 6/30/2017 | 0                      | (4,963) [1]                        | (4,963)                            |     | 0                      | (63,105) [1]                       | (63,105)                           |     |
| 3.       | Adjustment to reflect annual level of amortization                      | 0                      | (987) [1]                          | (987)                              |     | 0                      | 21,949 [1]                         | 21,949                             |     |
| 4.       | Adjustment to PAA (Sum of L2 + L3)                                      | 0                      | (5,950)                            | (5,950)                            |     | 0                      | (41,156)                           | (41,156)                           |     |
| 5.       | PAA per Public Staff (L1 + L4)  | \$520,390              | (\$536,839)                        | (\$16,448)                         |     | \$1,658,577            | (\$641,471)                        | \$1,017,106                        |     |

[1] Per examination of Company's financial records.

[2] Column (a) plus Column (b).

[3] Column (d) plus Column (e).

[4] Column (g) plus Column (h).

[5] Column (j) plus Column (k).

## CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 356

## CALCULATION OF EXCESS BOOK VALUE

For The Test Year Ended December 31, 2016

Johnson Exhibit I

Schedule 2-9

| Line No.                           | Item   | Unamortized Balance 7/31/15<br>(a) | [1] | Annual Amortization<br>(b) | [1] | Accumulated Amortization To 12/31/17<br>(c) | [2] | Unamortized Balance At 12/31/17<br>(d) | [3] |
|------------------------------------|--|------------------------------------|-----|----------------------------|-----|---|-----|--|-----|
| <b><u>CWSNC Uniform Water:</u></b> |  |                                    |     |                            |     |   |     |  |     |
| 1.                                 | Sugar Mountain                               | \$42,165                           |     | \$0                        |     | \$42,165                                    |     | \$0                                    |     |
| 2.                                 | Carolina Forest, Woodrun                     | 41,330                             |     | 0                          |     | 41,330                                      |     | 0                                      |     |
| 3.                                 | Brandywine Bay                               | 42,111                             |     | 3,139                      |     | 31,390                                      |     | 10,721                                 |     |
| 4.                                 | Queens Harbor                                | 40,590                             |     | 2,679                      |     | 26,790                                      |     | 13,800                                 |     |
| 5.                                 | Riverpointe                                  | 100,881                            |     | 6,052                      |     | 60,520                                      |     | 40,361                                 |     |
| 6.                                 | Watauga Vista                                | 2,556                              |     | 100                        |     | 1,000                                       |     | 1,556                                  |     |
| 7.                                 | Total excess book value (Sum of L1 thru L6)  | <u>\$269,633</u>                   |     | <u>\$11,970</u>            |     | <u>\$203,195</u>                            |     | <u>\$66,438</u>                        |     |
| <b><u>CWSNC Uniform Sewer:</u></b> |  |                                    |     |                            |     |   |     |  |     |
| 8.                                 | Sugar Mountain                               | \$63,781                           |     | \$0                        |     | \$63,781                                    |     | \$0                                    |     |
| 9.                                 | Brandywine Bay                               | 63,694                             |     | 4,748                      |     | 47,480                                      |     | 16,214                                 |     |
| 10.                                | Queens Harbor                                | 61,400                             |     | 4,052                      |     | 40,520                                      |     | 20,880                                 |     |
| 11.                                | Riverpointe                                  | 152,590                            |     | 9,154                      |     | 91,540                                      |     | 61,050                                 |     |
| 12.                                | Total excess book value (Sum of L8 thru L11) | <u>\$341,465</u>                   |     | <u>\$17,954</u>            |     | <u>\$243,321</u>                            |     | <u>\$98,144</u>                        |     |

[1] Based on prior rate cases, unless otherwise footnoted.

[2] Column (b) multiplied by 10.0 years, unless otherwise footnoted.

[3] Column (a) minus Column (c).

**CAROLINA WATER SERVICE, INC., OF NC**

Docket No. W-354, Sub 356

**CALCULATION OF COST-FREE CAPITAL**  
For The Test Year Ended December 31, 2016

Johnson Exhibit I  
Schedule 2-10

| <u>Line<br/>No.</u> | <u>Item</u>                                     | <u>CWSNC<br/>Water<br/>(a)</u> | <u>CWSNC<br/>Sewer<br/>(b)</u> |
|---------------------|---|--------------------------------|--------------------------------|
| 1.                  | Cost-free capital per application               | \$0                            | \$0                            |
| 2.                  | Adjustment to include Sub 344 cost-free capital | <u>(121,791) [1]</u>           | <u>(139,708) [1]</u>           |
| 3.                  | Cost-free capital per Public Staff (L1 + L2)    | <u><u>(\$121,791)</u></u>      | <u><u>(\$139,708)</u></u>      |

[1] Calculated by the Public Staff based on work papers filed in Docket No. W-354, Sub 266.

OFFICIAL COPY

Sep 19 2017

**CAROLINA WATER SERVICE, INC., OF NC**  
Docket No. W-354, Sub 356  
**CALCULATION OF DEFERRED CHARGES**  
For The Test Year Ended December 31, 2016

Johnson Exhibit I  
Schedule 2-11

| Line<br>No. | Item   | CWSNC<br>Water<br>(a) | CWSNC<br>Sewer<br>(b) | BF/FH<br>Water<br>(c) | BF/FH<br>Sewer<br>(d) |
|-------------|--|-----------------------|-----------------------|-----------------------|-----------------------|
| 1.          | Unamortized deferred maintenance - water                     | 956,268 [1]           | \$0                   | 81,075 [5]            | \$0                   |
| 2.          | Unamortized deferred maintenance - sewer                     | 0                     | 14,350 [3]            | 0                     | 51,629 [7]            |
| 3.          | Unamortized rate case expense per Public Staff               | 259,629 [2]           | 153,372 [4]           | 28,127 [6]            | 32,389 [8]            |
| 4.          | Unamortized deferred charges per Public Staff (L1 + L2 + L3) | <u>\$1,215,897</u>    | <u>\$167,722</u>      | <u>\$109,202</u>      | <u>\$84,018</u>       |

- [1] Johnson Exhibit I, Schedule 2-11(a), Column (g), Line 4.  
[2] Johnson Exhibit I, Schedule 3-4, Column (d), Line 10.  
[3] Johnson Exhibit I, Schedule 2-11(a), Column (g), Line 6.  
[4] Johnson Exhibit I, Schedule 3-4, Column (e), Line 10.  
[5] Johnson Exhibit I, Schedule 2-11(a), Column (g), Line 10.  
[6] Johnson Exhibit I, Schedule 3-4, Column (f), Line 10.  
[7] Johnson Exhibit I, Schedule 2-11(a), Column (g), Line 11.  
[8] Johnson Exhibit I, Schedule 3-4, Column (g), Line 10.

**CAROLINA WATER SERVICE, INC., OF NC**  
**Docket No. W-354, Sub 356**  
**CALCULATION OF DEFERRED MAINTENANCE**  
**For The Test Year Ended December 31, 2016**

Johnson Exhibit I  
Schedule 2-11(a)

| Line No.   | Item  | Unamortized Total Cost Per Public Staff [1]<br>(a) | Amortization Period In Years [1]<br>(b) | Date Amortization Began [1]<br>(c) | Annual Amortization [2]<br>(d) | Accumulated Amortization [3]<br>(e) | Unamortized Balance [4]<br>(f) |
|--|---|--|---|------------------------------------|--------------------------------|-------------------------------------|--------------------------------|
| <b><u>Deferred maintenance - CWSNC Uniform Water</u></b> |   |  |   |                                    |                                |                                     |                                |
| 1.   | Deferred elevated storage tank painting                 | \$779,037  | 10                                      | Various                            | \$77,904                       | \$187,348                           | \$591,689                      |
| 2.   | Deferred hydro storage tank painting                    | 439,670  | 5                                       | Various                            | 87,934                         | 305,203                             | 134,467                        |
| 3.   | Deferred hydro storage tank inspection                  | 539,687  | 5                                       | Various                            | 107,937                        | 309,575                             | 230,112                        |
| 4.   | Total deferred maintenance - water (Sum of L1 thru L3)  | <u>1,758,394</u>                                   |   |                                    | <u>273,775</u>                 | <u>802,126</u>                      | <u>956,268</u>                 |
| <b><u>Deferred maintenance - CWSNC Uniform Sewer</u></b> |   |  |   |                                    |                                |                                     |                                |
| 5.   | Belvedere pump and haul                                 | 3,424,839  | 10                                      | Various                            | 342,484                        | 1,575,838                           | 1,849,001                      |
| 6.   | WWTP  | 200,327  | 5                                       | Various                            | 40,065                         | 185,977                             | 14,350                         |
| 7.   | Total deferred maintenance - sewer (L5 + L6)            | <u>3,625,166</u>                                   |   |                                    | <u>382,549</u>                 | <u>1,761,815</u>                    | <u>1,863,351</u>               |
| <b><u>Deferred maintenance - BF/FF Water</u></b>         |   |  |   |                                    |                                |                                     |                                |
| 8.   | Deferred elevated storage tank painting                 | 66,028   | 10                                      | Various                            | 6,603                          | 6,603                               | 59,425                         |
| 9.   | Deferred hydro storage tank painting                    | 36,500   | 5                                       | Various                            | 7,300                          | 24,942                              | 11,558                         |
| 10.  | Deferred hydro storage tank inspection                  | 24,622   | 5                                       | Various                            | 4,924                          | 14,530                              | 10,092                         |
| 11.  | Total deferred maintenance - sewer (Sum of L8 thru L10) | <u>127,150</u>                                     |   |                                    | <u>18,827</u>                  | <u>46,075</u>                       | <u>81,075</u>                  |
| <b><u>Deferred maintenance - BF/FF Sewer</u></b>         |   |  |   |                                    |                                |                                     |                                |
| 12.  | WWTP  | <u>110,492</u>                                     | 5                                       | Various                            | <u>22,098</u>                  | <u>58,863</u>                       | <u>51,629</u>                  |
| 13.  | Total deferred maintenance (L4 + L7 + L11 + L12)        | <u>\$5,621,201</u>                                 |   |                                    | <u>\$697,249</u>               | <u>\$2,668,878</u>                  | <u>\$2,952,323</u>             |

[1] Per examination of Company's financial records.

[2] Column (a) divided by Column (b).

[3] Total monthly amortization through December 31, 2017.

[4] Column (a) minus Column (f).

OFFICIAL COPY

Sep 19 2017

CAROLINA WATER SERVICE, INC. OF NC  
 Docket No. W-354, Sub 316  
 NET OPERATING INCOME FOR A RETURN  
 For The Year Ended December 31, 2016

Johnson Exhibit 1  
 Schedule 910  
 Page 3 of 2

CWSNC WATER OPERATIONS

| Line No.                       | Item                                     | Present Rates          |                          |                        |                       | Company Proposed Rates |                                |                       |                                | Public Staff Recommended Rates |  |  |  |
|--------------------------------|--|------------------------|--------------------------|------------------------|-----------------------|------------------------|--------------------------------|-----------------------|--------------------------------|--------------------------------|--|--|--|
|                                |  | Amount Per Application | Public Staff Adjustments | Amount Per Application | Public Staff Increase | Company Increase       | Operations After Rate Increase | Public Staff Increase | Operations After Rate Increase |                                |  |  |  |
| <b>Operating Revenues:</b>     |  |                        |                          |                        |                       |                        |                                |                       |                                |                                |  |  |  |
| 1.                             | Service revenues                         | \$15,118,194           | \$4,735                  | \$15,122,929           | [3]                   | \$3,201,215            | \$18,414,144 [3]               | \$2,292,009           | \$17,415,028 [25]              |                                |  |  |  |
| 2.                             | Miscellaneous revenues                   | 136,494                | 35,316                   | 171,810                | [4]                   | 0                      | 180,779 [19]                   | 4,189                 | 178,096 [26]                   |                                |  |  |  |
| 3.                             | Uncollectible accounts                   | (93,985)               | 1,716                    | (92,269)               | [5]                   | (20,075)               | (112,345) [20]                 | (13,982)              | (106,232) [27]                 |                                |  |  |  |
| 4.                             | Total operating revenues                 | 15,160,703             | 41,767                   | 15,202,456             |                       | 3,200,025              | 18,482,611                     | 2,294,306             | 17,488,692                     |                                |  |  |  |
| <b>Maintenance Expenses:</b>   |  |                        |                          |                        |                       |                        |                                |                       |                                |                                |  |  |  |
| 5.                             | Salaries and wages                       | 2,704,977              | 114,589                  | 2,819,566              | [6]                   | 0                      | 2,819,566                      | 0                     | 2,819,566                      |                                |  |  |  |
| 6.                             | Purchased power                          | 1,071,238              | 0                        | 1,071,238              |                       | 0                      | 1,071,238                      | 0                     | 1,071,238                      |                                |  |  |  |
| 7.                             | Purchased water                          | 1,367,621              | 0                        | 1,367,621              | [7]                   | 0                      | 1,367,621                      | 0                     | 1,367,621                      |                                |  |  |  |
| 8.                             | Maintenance and repair                   | 1,097,479              | 154,943                  | 1,252,422              | [8]                   | 0                      | 1,252,422                      | 0                     | 1,252,422                      |                                |  |  |  |
| 9.                             | Maintenance tender                       | 135,659                | 32,489                   | 168,148                | [9]                   | 0                      | 168,148                        | 0                     | 168,148                        |                                |  |  |  |
| 10.                            | Meter reading                            | 182,095                | 0                        | 182,095                |                       | 0                      | 182,095                        | 0                     | 182,095                        |                                |  |  |  |
| 11.                            | Chemicals                                | 347,545                | 0                        | 347,545                | [3]                   | 0                      | 347,545                        | 0                     | 347,545                        |                                |  |  |  |
| 12.                            | Transportation                           | 222,579                | 0                        | 222,579                |                       | 0                      | 222,579                        | 0                     | 222,579                        |                                |  |  |  |
| 13.                            | Operating expense charged to plant       | (363,827)              | 0                        | (363,827)              |                       | 0                      | (363,827)                      | 0                     | (363,827)                      |                                |  |  |  |
| 14.                            | Outside services - other                 | 283,511                | 0                        | 283,511                |                       | 0                      | 283,511                        | 0                     | 283,511                        |                                |  |  |  |
| 15.                            | Total maintenance expenses               | 7,009,278              | (322,350)                | 6,686,928              |                       | 0                      | 6,686,928                      | 0                     | 6,686,928                      |                                |  |  |  |
| <b>General Expenses:</b>       |  |                        |                          |                        |                       |                        |                                |                       |                                |                                |  |  |  |
| 16.                            | Salaries and wages                       | 590,703                | (15,421)                 | 575,282                | [6]                   | 0                      | 575,282                        | 0                     | 575,282                        |                                |  |  |  |
| 17.                            | Office supplies and other office expense | 302,274                | 0                        | 302,274                |                       | 0                      | 302,274                        | 0                     | 302,274                        |                                |  |  |  |
| 18.                            | Regulatory commission expense            | 215,769                | (65,975)                 | 149,794                | [9]                   | 0                      | 149,794                        | 0                     | 149,794                        |                                |  |  |  |
| 19.                            | Pension and other benefits               | 608,143                | 0                        | 608,143                |                       | 0                      | 608,143                        | 0                     | 608,143                        |                                |  |  |  |
| 20.                            | Rent                                     | 128,436                | 0                        | 128,436                |                       | 0                      | 128,436                        | 0                     | 128,436                        |                                |  |  |  |
| 21.                            | Insurance                                | 301,711                | 0                        | 301,711                |                       | 0                      | 301,711                        | 0                     | 301,711                        |                                |  |  |  |
| 22.                            | Office utilities                         | 428,564                | 0                        | 428,564                |                       | 0                      | 428,564                        | 0                     | 428,564                        |                                |  |  |  |
| 23.                            | Miscellaneous                            | 63,597                 | (68,585)                 | (4,988)                | [9]                   | 0                      | (4,988)                        | 0                     | (4,988)                        |                                |  |  |  |
| 24.                            | Total general expenses                   | 2,959,217              | (199,981)                | 2,759,236              |                       | 0                      | 2,759,236                      | 0                     | 2,759,236                      |                                |  |  |  |
| <b>Depreciation and Taxes:</b> |  |                        |                          |                        |                       |                        |                                |                       |                                |                                |  |  |  |
| 25.                            | Depreciation expense                     | 2,674,584              | 116,420                  | 2,791,004              | [10]                  | 0                      | 2,791,004                      | 0                     | 2,791,004                      |                                |  |  |  |
| 26.                            | Amortization of CAC                      | (316,503)              | (736,015)                | (1,052,518)            | [11]                  | 0                      | (1,052,518)                    | 0                     | (1,052,518)                    |                                |  |  |  |
| 27.                            | Amortization of PMA                      | (79,339)               | (10,005)                 | (89,344)               | [12]                  | 0                      | (89,344)                       | 0                     | (89,344)                       |                                |  |  |  |
| 28.                            | Amortization of TIC                      | 0                      | 0                        | 0                      |                       | 0                      | 0                              | 0                     | 0                              |                                |  |  |  |
| 29.                            | Franchise and other taxes                | 71,480                 | 0                        | 71,480                 |                       | 0                      | 71,480                         | 0                     | 71,480                         |                                |  |  |  |
| 30.                            | Property taxes                           | 128,476                | 0                        | 128,476                |                       | 0                      | 128,476                        | 0                     | 128,476                        |                                |  |  |  |
| 31.                            | Payroll taxes                            | 274,501                | 0                        | 274,501                |                       | 0                      | 274,501                        | 0                     | 274,501                        |                                |  |  |  |
| 32.                            | Regulatory fee                           | 0                      | (3)                      | (3)                    |                       | 0                      | (3)                            | 0                     | (3)                            |                                |  |  |  |
| 33.                            | Gross receipts tax                       | 0                      | 21,384                   | 21,384                 | [13]                  | 4,592                  | 25,976 [14]                    | 3,198                 | 29,174 [15]                    |                                |  |  |  |
| 34.                            | State income tax                         | (5,409)                | 0                        | (5,409)                |                       | 0                      | (5,409)                        | 0                     | (5,409)                        |                                |  |  |  |
| 35.                            | Federal income tax                       | 0                      | 52,882                   | 52,882                 | [15]                  | 96,263                 | 151,145 [21]                   | 64,493                | 215,638 [22]                   |                                |  |  |  |
| 36.                            | Total depreciation and taxes             | 2,457,547              | 542,517                  | 3,000,064              |                       | 1,080,238              | 4,080,302                      | 753,310               | 4,833,612                      |                                |  |  |  |
| 37.                            | Total operating revenue deductions       | 12,486,142             | (108,862)                | 12,595,004             |                       | 1,183,093              | 13,778,097                     | 827,941               | 14,421,895                     |                                |  |  |  |
| 38.                            | Net operating income for a return        | \$2,674,561            | (\$60,151)               | \$2,614,410            |                       | \$2,096,932            | \$4,701,514                    | \$1,460,165           | \$4,085,007                    |                                |  |  |  |

CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 356

FOOTNOTES TO SCHEDULE 3(a)

For The Test Year Ended December 31, 2016

Johnson Exhibit I

Schedule 3(a)

Page 2 of 2

CWSNC WATER OPERATIONS

- [1] Column (c) minus Column (a), unless otherwise footnoted.
- [2] Column (a) plus Column (b), unless otherwise footnoted.
- [3] Provided by Public Staff Engineer Casselberry.
- [4] Johnson Exhibit I, Schedule 3-1(a), Column (c), Line 5.
- [5] Johnson Exhibit I, Schedule 3-2, Column (a), Line 6.
- [6] Expense amount as calculated by the Public Staff.
- [7] Johnson Exhibit I, Schedule 3-3, Column (a), Line 7.
- [8] Johnson Exhibit I, Schedule 3-4, Column (d), Line 9.
- [9] Johnson Exhibit I, Schedule 3-5, Column (a), Line 3.
- [10] Johnson Exhibit I, Schedule 3-6, Column (a), Line 5.
- [11] Johnson Exhibit I, Schedule 3-6, Column (a), Line 10.
- [12] Johnson Exhibit I, Schedule 3-6, Column (a), Line 13.
- [13] Line 4 multiplied by 0.14%.
- [14] Adjustment to remove gross receipts tax.
- [15] Johnson Exhibit I, Schedule 3-7(a), Column (a), Line 16.
- [16] Johnson Exhibit I, Schedule 3-7(a), Column (a), Line 18.
- [17] Column (e) minus Column (c), unless otherwise footnoted.
- [18] Column (c) plus Column (d), unless otherwise footnoted.
- [19] Johnson Exhibit I, Schedule 3-1(a), Column (c), Line 10.
- [20] Johnson Exhibit I, Schedule 3-2, Column (a), Line 9.
- [21] Johnson Exhibit I, Schedule 3-7(a), Column (b), Line 16.
- [22] Johnson Exhibit I, Schedule 3-7(a), Column (b), Line 18.
- [23] Column (g) minus Column (c), unless otherwise footnoted.
- [24] Column (e) plus Column (f), unless otherwise footnoted.
- [25] Revenue requirement as calculated by the Public Staff.
- [26] Johnson Exhibit I, Schedule 3-1(a), Column (c), Line 15.
- [27] Johnson Exhibit I, Schedule 3-2, Column (a), Line 12.
- [28] Johnson Exhibit I, Schedule 3-7(a), Column (c), Line 16.
- [29] Johnson Exhibit I, Schedule 3-7(a), Column (c), Line 18.

OFFICIAL COPY

Sep 19 2017

CAROLINA WATER SERVICE, INC., OF NC  
 Docket No. W-534, Sub 355  
 NET OPERATING INCOME FOR A RETURN  
 For The Year Ended December 31, 2015

CHS/SC SEWER OPERATIONS

Johnson Exhibit 1  
 Schedule 3(b)  
 Page 1 of 2

| Line No.                       | Item                                     | Present Rates              |                             |                             | Company Proposed Rates   |                                    |                               | Public Staff Recommended Rates     |  |  |
|--------------------------------|--|----------------------------|-----------------------------|-----------------------------|--------------------------|------------------------------------|-------------------------------|------------------------------------|--|--|
|                                |  | Amount Per Application [a] | Public Staff Adjustment [b] | Amount Per Public Staff [c] | Net Company Increase [d] | Operations After Rate Increase [e] | Public Staff Net Increase [f] | Operations After Rate Increase [g] |  |  |
| <b>Operating Revenues</b>      |  |                            |                             |                             |                          |                                    |                               |                                    |  |  |
| 1.                             | Service revenues                         | \$11,739,683               | (\$1,942)                   | \$11,737,741 [3]            | \$1,539,062              | \$13,294,803 [9]                   | \$871,485                     | \$12,627,246 [25]                  |  |  |
| 2.                             | Miscellaneous revenues                   | 106,832                    | 20,672                      | 127,504 [6]                 | 4,155                    | 131,659 [16]                       | 2,353                         | 129,847 [26]                       |  |  |
| 3.                             | Unallocable accounts                     | (73,516)                   | 630                         | (72,886) [5]                | (9,942)                  | (72,428) [20]                      | (5,403)                       | (70,259) [27]                      |  |  |
| 4.                             | Total operating revenues                 | 11,739,009                 | 17,360                      | 11,810,369                  | 1,533,675                | 13,344,044                         | 888,435                       | 12,678,804                         |  |  |
| <b>Maintenance Expenses:</b>   |  |                            |                             |                             |                          |                                    |                               |                                    |  |  |
| 5.                             | Salaries and wages                       | 1,334,640                  | 225,915                     | 1,560,555 [5]               | 0                        | 1,560,555                          | 0                             | 1,560,555                          |  |  |
| 6.                             | Purchased power                          | 785,837                    | 0                           | 785,837                     | 0                        | 785,837                            | 0                             | 785,837                            |  |  |
| 7.                             | Purchased sewer                          | 613,849                    | 0                           | 589,536 [3]                 | 0                        | 589,536                            | 0                             | 589,536                            |  |  |
| 8.                             | Maintenance and repair                   | 1,435,866                  | 94,881                      | 1,530,747 [7]               | 0                        | 1,530,747                          | 0                             | 1,530,747                          |  |  |
| 9.                             | Maintenance testing                      | 297,109                    | 10,704                      | 286,405 [3]                 | 0                        | 286,405                            | 0                             | 286,405                            |  |  |
| 10.                            | Water treatment                          | 0                          | 0                           | 0                           | 0                        | 0                                  | 0                             | 0                                  |  |  |
| 11.                            | Chemicals                                | 205,315                    | 103,835                     | 309,150 [3]                 | 0                        | 309,150                            | 0                             | 309,150                            |  |  |
| 12.                            | Transportation                           | 133,509                    | 0                           | 133,509 [3]                 | 0                        | 133,509                            | 0                             | 133,509                            |  |  |
| 13.                            | Operating expenses charged to plant      | (215,007)                  | 0                           | (215,007)                   | 0                        | (215,007)                          | 0                             | (215,007)                          |  |  |
| 14.                            | Overhead services - other                | 325,152                    | 0                           | 325,152                     | 0                        | 325,152                            | 0                             | 325,152                            |  |  |
| 15.                            | Total maintenance expenses               | 4,166,270                  | 336,614                     | 5,135,884                   | 0                        | 5,135,884                          | 0                             | 5,135,884                          |  |  |
| <b>General Expenses:</b>       |  |                            |                             |                             |                          |                                    |                               |                                    |  |  |
| 16.                            | Salaries and wages                       | 829,139                    | (213,539)                   | 533,600 [6]                 | 0                        | 533,600                            | 0                             | 533,600                            |  |  |
| 17.                            | Office supplies and other office expense | 180,778                    | 0                           | 180,778                     | 0                        | 180,778                            | 0                             | 180,778                            |  |  |
| 18.                            | Regulatory commission expense            | 127,480                    | 0                           | 127,480 [8]                 | 0                        | 127,480                            | 0                             | 127,480                            |  |  |
| 19.                            | Pension and other benefits               | 354,983                    | 0                           | 354,983                     | 0                        | 354,983                            | 0                             | 354,983                            |  |  |
| 20.                            | Rent                                     | 76,334                     | 0                           | 76,334                      | 0                        | 76,334                             | 0                             | 76,334                             |  |  |
| 21.                            | Insurance                                | 181,074                    | 0                           | 181,074                     | 0                        | 181,074                            | 0                             | 181,074                            |  |  |
| 22.                            | Office utilities                         | 254,493                    | 0                           | 254,493                     | 0                        | 254,493                            | 0                             | 254,493                            |  |  |
| 23.                            | Miscellaneous                            | 54,925                     | (63,008)                    | (8,083) [9]                 | 0                        | (8,083)                            | 0                             | (8,083)                            |  |  |
| 24.                            | Total general expenses                   | 2,019,207                  | (77,241)                    | 1,961,856                   | 0                        | 1,961,856                          | 0                             | 1,961,856                          |  |  |
| <b>Depreciation and Taxes:</b> |  |                            |                             |                             |                          |                                    |                               |                                    |  |  |
| 25.                            | Depreciation expense                     | 2,069,366                  | 117,093                     | 2,186,459 [10]              | 0                        | 2,186,459                          | 0                             | 2,186,459                          |  |  |
| 26.                            | Amortization of CAC                      | (621,136)                  | (134,136)                   | (755,272) [11]              | 0                        | (755,272)                          | 0                             | (755,272)                          |  |  |
| 27.                            | Amortization of PPA                      | (14,465)                   | (2,400)                     | (16,865) [12]               | 0                        | (16,865)                           | 0                             | (16,865)                           |  |  |
| 28.                            | Amortization of ITC                      | (123)                      | 0                           | (123) [22]                  | 0                        | (123)                              | 0                             | (123)                              |  |  |
| 29.                            | Franchise and other taxes                | 55,912                     | 0                           | 55,912                      | 0                        | 55,912                             | 0                             | 55,912                             |  |  |
| 30.                            | Property taxes                           | 74,640                     | 0                           | 74,640                      | 0                        | 74,640                             | 0                             | 74,640                             |  |  |
| 31.                            | Payroll taxes                            | 164,156                    | 0                           | 164,156 [5]                 | 0                        | 164,156                            | 0                             | 164,156                            |  |  |
| 32.                            | Regulatory fee                           | 0                          | 141                         | 141 [23]                    | 0                        | 141                                | 0                             | 141                                |  |  |
| 33.                            | Gross receipts tax                       | 0                          | 16,535                      | 16,535 [13]                 | 0                        | 16,535                             | 0                             | 16,535                             |  |  |
| 34.                            | State income tax                         | (4,231)                    | 4,231                       | 0 [14]                      | 0                        | 0                                  | 0                             | 0                                  |  |  |
| 35.                            | Federal income tax                       | 0                          | 63,281                      | 63,281 [15]                 | 0                        | 63,281                             | 0                             | 63,281                             |  |  |
| 36.                            | Total depreciation and taxes             | 1,714,213                  | 71,658                      | 1,785,871 [16]              | 0                        | 1,785,871                          | 0                             | 1,785,871                          |  |  |
| 37.                            | Total operating revenue deductions       | 8,339,690                  | 766,674                     | 9,306,364                   | 551,191                  | 9,857,555                          | 313,241                       | 9,619,605                          |  |  |
| 38.                            | Net operating income for a return        | \$3,259,319                | (\$745,314)                 | \$2,514,005                 | \$989,494                | \$3,494,489                        | \$555,194                     | \$3,009,299                        |  |  |



CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 356

FOOTNOTES TO SCHEDULE 3(b)

For The Test Year Ended December 31, 2016

Johnson Exhibit I  
Schedule 3(b)  
Page 2 of 2

CWSNC SEWER OPERATIONS

- [1] Column (c) minus Column (a), unless otherwise footnoted.
- [2] Column (a) plus Column (b), unless otherwise footnoted.
- [3] Provided by Public Staff Engineer Casselberry.
- [4] Johnson Exhibit I, Schedule 3-1(b), Column (c), Line 5.
- [5] Johnson Exhibit I, Schedule 3-2, Column (b), Line 6.
- [6] Expense amount as calculated by the Public Staff.
- [7] Johnson Exhibit I, Schedule 3-3, Column (b), Line 7.
- [8] Johnson Exhibit I, Schedule 3-4, Column (e), Line 9.
- [9] Johnson Exhibit I, Schedule 3-5, Column (b), Line 3.
- [10] Johnson Exhibit I, Schedule 3-6, Column (b), Line 5.
- [11] Johnson Exhibit I, Schedule 3-6, Column (b), Line 10.
- [12] Johnson Exhibit I, Schedule 3-6, Column (b), Line 13.
- [13] Line 4 multiplied by 0.14%.
- [14] Adjustment to remove gross receipts tax.
- [15] Johnson Exhibit I, Schedule 3-7(b), Column (a), Line 16.
- [16] Johnson Exhibit I, Schedule 3-7(b), Column (a), Line 18.
- [17] Column (e) minus Column (c), unless otherwise footnoted.
- [18] Column (c) plus Column (d), unless otherwise footnoted.
- [19] Johnson Exhibit I, Schedule 3-1(b), Column (c), Line 10.
- [20] Johnson Exhibit I, Schedule 3-2, Column (b), Line 9.
- [21] Johnson Exhibit I, Schedule 3-7(b), Column (b), Line 16.
- [22] Johnson Exhibit I, Schedule 3-7(b), Column (b), Line 18.
- [23] Column (g) minus Column (c), unless otherwise footnoted.
- [24] Column (e) plus Column (f), unless otherwise footnoted.
- [25] Revenue requirement as calculated by the Public Staff.
- [26] Johnson Exhibit I, Schedule 3-1(b), Column (c), Line 15.
- [27] Johnson Exhibit I, Schedule 3-2, Column (b), Line 12.
- [28] Johnson Exhibit I, Schedule 3-7(b), Column (c), Line 16.
- [29] Johnson Exhibit I, Schedule 3-7(b), Column (c), Line 18.

OFFICIAL COPY

Sep 19 2017

**CAROLINA WATER SERVICE, INC., OF NC**  
**Detail No. W-354, Sub 356**  
**NET OPERATING INCOME FOR A RETURN**  
**For the Year Ended December 31, 2016**  
**BROADBUD/FARFIELD WATER OPERATIONS**

Johnson Exhibit 1  
Schedule 31c  
Page 1 of 2

| Line No. | Item                                     | Percent Rates              |                             | Company Proposed Rates     |                      | Public Staff Recommended Rates |                                   |
|----------|--|----------------------------|-----------------------------|----------------------------|----------------------|--------------------------------|-----------------------------------|
|          |  | Amount Per Application (1) | Public Staff Adjustment (2) | Amount Per Application (3) | Company Increase (4) | Public Staff Increase (5)      | Public Staff Recommended Rate (6) |
| 1        | <b>Operating Revenues</b>                |                            |                             |                            |                      |                                |                                   |
| 2        | Service revenues                         | \$719,407                  | (\$1,898)                   | \$717,509 (3)              | \$911,083            | \$1,079,392 (1)                | \$238,246                         |
| 3        | Miscellaneous revenues                   | 8,352                      | 31,000                      | 39,352 (4)                 | 1,060                | 40,412 (19)                    | 793                               |
| 4        | Unaffiliated accounts                    | (8,419)                    | RL                          | (8,359) (5)                | (3,659)              | (12,048) (20)                  | (12,729)                          |
|          | <b>Total operating revenues</b>          | <b>719,340</b>             | <b>29,103</b>               | <b>744,466</b>             | <b>309,294</b>       | <b>1,067,760</b>               | <b>231,370</b>                    |
| 5        | <b>Maintenance Expenses</b>              |                            |                             |                            |                      |                                |                                   |
| 6        | Salaries and wages                       | 163,218                    | (21,834)                    | 141,384 (6)                | 0                    | 141,384                        | 0                                 |
| 7        | Purchased power                          | 60,164                     | 0                           | 60,164 (7)                 | 0                    | 60,164                         | 0                                 |
| 8        | Purchased water                          | (190,402)                  | 30,402                      | 0 (7)                      | 0                    | 0                              | 0                                 |
| 9        | Maintenance and repair                   | 54,003                     | (4,022)                     | 50,441 (8)                 | 0                    | 50,441                         | 0                                 |
| 10       | Maintenance testing                      | 5,016                      | 341                         | 5,357 (9)                  | 0                    | 5,357                          | 0                                 |
| 11       | Meter reading                            | 36,012                     | 0                           | 36,012 (9)                 | 0                    | 36,012                         | 0                                 |
| 12       | Chemicals                                | 30,280                     | 5,178                       | 35,458 (9)                 | 0                    | 35,458                         | 0                                 |
| 13       | Transportation                           | 27,730                     | 0                           | 27,730 (9)                 | 0                    | 27,730                         | 0                                 |
| 14       | Operating expenses charged to plant      | (17,018)                   | 0                           | (17,018)                   | 0                    | (17,018)                       | 0                                 |
| 15       | Outside services - other                 | 24,122                     | 0                           | 24,122 (10)                | 0                    | 24,122                         | 0                                 |
|          | <b>Total maintenance expenses</b>        | <b>378,615</b>             | <b>30,285</b>               | <b>394,800</b>             | <b>0</b>             | <b>394,800</b>                 | <b>0</b>                          |
| 16       | <b>General Expenses</b>                  |                            |                             |                            |                      |                                |                                   |
| 17       | Salaries and wages                       | 106,490                    | 3,091                       | 109,521 (6)                | 0                    | 109,521                        | 0                                 |
| 18       | Office supplies and other office expense | 30,180                     | 0                           | 30,180 (9)                 | 0                    | 30,180                         | 0                                 |
| 19       | Regulatory commission expense            | 25,753                     | (9,559)                     | 16,194 (9)                 | 0                    | 16,194                         | 0                                 |
| 20       | Pension and other benefits               | 73,297                     | 0                           | 73,297 (9)                 | 0                    | 73,297                         | 0                                 |
| 21       | Rent                                     | 12,219                     | 0                           | 12,219 (9)                 | 0                    | 12,219                         | 0                                 |
| 22       | Insurance                                | 86,376                     | 0                           | 86,376 (9)                 | 0                    | 86,376                         | 0                                 |
| 23       | Miscellaneous                            | 32,301                     | 0                           | 32,301 (9)                 | 0                    | 32,301                         | 0                                 |
| 24       | <b>Total general expenses</b>            | <b>641,816</b>             | <b>(11,504)</b>             | <b>(4,686) (10)</b>        | <b>0</b>             | <b>(4,686)</b>                 | <b>0</b>                          |
|          | <b>Depreciation and Taxes</b>            |                            |                             |                            |                      |                                |                                   |
| 25       | Depreciation expense                     | 148,059                    | (17,874)                    | 130,185 (11)               | 0                    | 130,185                        | 0                                 |
| 26       | Amortization of CUC                      | (13,750)                   | (8,083)                     | (4,667) (12)               | 0                    | (4,667)                        | 0                                 |
| 27       | Amortization of PPA                      | 9,916                      | 1,042                       | 10,958 (13)                | 0                    | 10,958                         | 0                                 |
| 28       | Amortization of ITC                      | 0                          | 0                           | 0 (13)                     | 0                    | 0                              | 0                                 |
| 29       | Franchise and other taxes                | 5,038                      | 0                           | 5,038 (13)                 | 0                    | 5,038                          | 0                                 |
| 30       | Property taxes                           | 8,414                      | 0                           | 8,414 (13)                 | 0                    | 8,414                          | 0                                 |
| 31       | Payroll taxes                            | 32,662                     | (3,101)                     | 29,561 (14)                | 0                    | 29,561                         | 0                                 |
| 32       | Regulatory fee                           | 0                          | 1,048                       | 1,048 (14)                 | 493                  | 1,481 (14)                     | 924                               |
| 33       | Gross receipts tax                       | 0                          | 0                           | 0 (15)                     | 0                    | 0                              | 0                                 |
| 34       | State income tax                         | 0                          | (2,647)                     | (2,647) (15)               | 9,246                | 6,599 (21)                     | 6,590                             |
| 35       | Federal income tax                       | 0                          | (29,093)                    | (29,093) (15)              | 101,883              | 72,764 (22)                    | 47,080 (28)                       |
| 36       | <b>Total depreciation and taxes</b>      | <b>168,319</b>             | <b>(55,781)</b>             | <b>112,538</b>             | <b>111,562</b>       | <b>224,110</b>                 | <b>83,433</b>                     |
| 37       | <b>Total operating revenues/expense</b>  | <b>816,358</b>             | <b>(63,548)</b>             | <b>752,810</b>             | <b>111,562</b>       | <b>864,402</b>                 | <b>83,433</b>                     |
| 38       | <b>Net operating income for a return</b> | <b>(\$7,127)</b>           | <b>\$37,731</b>             | <b>(\$4,376)</b>           | <b>\$197,732</b>     | <b>\$193,358</b>               | <b>\$107,272</b>                  |
|          |  |                            |                             |                            |                      |                                | <b>\$108,503</b>                  |

CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 356

FOOTNOTES TO SCHEDULE 3(c)

For The Test Year Ended December 31, 2016

Johnson Exhibit I  
Schedule 3(c)  
Page 2 of 2

BRADFIELD FARMS/FAIRFIELD HARBOUR WATER OPERATIONS

- [1] Column (c) minus Column (a), unless otherwise footnoted.
- [2] Column (a) plus Column (b), unless otherwise footnoted.
- [3] Provided by Public Staff Engineer Casselberry.
- [4] Johnson Exhibit I, Schedule 3-1(c), Column (c), Line 5.
- [5] Johnson Exhibit I, Schedule 3-2, Column (c), Line 6.
- [6] Expense amount as calculated by the Public Staff.
- [7] Adjustment to reclassify antenna lease revenue.
- [8] Johnson Exhibit I, Schedule 3-3, Column (c), Line 7.
- [9] Johnson Exhibit I, Schedule 3-4, Column (f), Line 9.
- [10] Johnson Exhibit I, Schedule 3-5, Column (c), Line 3.
- [11] Johnson Exhibit I, Schedule 3-6, Column (c), Line 5.
- [12] Johnson Exhibit I, Schedule 3-6, Column (c), Line 10.
- [13] Johnson Exhibit I, Schedule 3-6, Column (c), Line 13.
- [14] Line 4 multiplied by 0.14%.
- [15] Johnson Exhibit I, Schedule 3-7(c), Column (a), Line 16.
- [16] Johnson Exhibit I, Schedule 3-7(c), Column (a), Line 18.
- [17] Column (e) minus Column (c), unless otherwise footnoted.
- [18] Column (c) plus Column (d), unless otherwise footnoted.
- [19] Johnson Exhibit I, Schedule 3-1(c), Column (c), Line 10.
- [20] Johnson Exhibit I, Schedule 3-2, Column (c), Line 9.
- [21] Johnson Exhibit I, Schedule 3-7(c), Column (b), Line 16.
- [22] Johnson Exhibit I, Schedule 3-7(c), Column (b), Line 18.
- [23] Column (g) minus Column (c), unless otherwise footnoted.
- [24] Column (e) plus Column (f), unless otherwise footnoted.
- [25] Revenue requirement as calculated by the Public Staff.
- [26] Johnson Exhibit I, Schedule 3-1(c), Column (c), Line 15.
- [27] Johnson Exhibit I, Schedule 3-2, Column (c), Line 12.
- [28] Johnson Exhibit I, Schedule 3-7(c), Column (c), Line 16.
- [29] Johnson Exhibit I, Schedule 3-7(c), Column (c), Line 18.

OFFICIAL COPY

Sep 19 2017

CAROLINA WATER SERVICE, INC., OF NC  
 Docet No. W-354, Sub 356  
 NET OPERATING INCOME FOR A RETURN  
 For The Year Ended December 31, 2016  
 BRADFIELD/FAIRFIELD SEWER OPERATIONS

Johnson Exhibit 1  
 Schedule 3(f)  
 Page 1 of 2

| Line No.                       | Item                                     | Present Rates          |                          |                         | Company Proposed Rates |                                |              | Public Staff Recommended Rates   |                                |  |
|--------------------------------|--|------------------------|--------------------------|-------------------------|------------------------|--------------------------------|--------------|----------------------------------|--------------------------------|--|
|                                |  | Amount Per Application | Public Staff Adjustments | Amount Per Public Staff | Net Increase           | Operations After Rate Increase | Net Increase | Public Staff After Rate Increase | Operations After Rate Increase |  |
|                                |  | (a)                    | (b)                      | (c)                     | (d)                    | (e)                            | (f)          | (g)                              | (h)                            |  |
| <b>Operating Revenues:</b>     |  |                        |                          |                         |                        |                                |              |                                  |                                |  |
| 1.                             | Service revenues                         | \$1,370,712            | (\$506)                  | \$1,370,666 (3)         | \$421,578              | \$1,792,244 (3)                | \$362,650    | \$1,793,316 (24)                 |                                |  |
| 2.                             | Miscellaneous revenues                   | 15,915                 | 701                      | 16,616 (4)              | 1,494                  | 18,050 (18)                    | 1,233        | 17,849 (25)                      |                                |  |
| 3.                             | Unallocable accounts                     | (16,131)               | 114                      | (16,017) (5)            | (4,932)                | (20,969) (19)                  | (4,243)      | (20,200) (26)                    |                                |  |
| 4.                             | Total operating revenues                 | 1,370,536              | 709                      | 1,371,245               | 418,080                | 1,789,325                      | 359,640      | 1,790,865                        |                                |  |
| <b>Maintenance Expenses:</b>   |  |                        |                          |                         |                        |                                |              |                                  |                                |  |
| 5.                             | Salaries and wages                       | 132,084                | 19,659                   | 151,743 (6)             | 0                      | 151,743                        | 0            | 151,743                          |                                |  |
| 6.                             | Purchased power                          | 152,413                | 0                        | 152,413                 | 0                      | 152,413                        | 0            | 152,413                          |                                |  |
| 7.                             | Purchased sewer                          | 0                      | 0                        | 0                       | 0                      | 0                              | 0            | 0                                |                                |  |
| 8.                             | Maintenance and repair                   | 155,718                | (590)                    | 155,128 (7)             | 0                      | 155,128                        | 0            | 155,128                          |                                |  |
| 9.                             | Maintenance testing                      | 25,223                 | (1,301)                  | 21,922 (3)              | 0                      | 21,922                         | 0            | 21,922                           |                                |  |
| 10.                            | Meter reading                            | 0                      | 0                        | 0                       | 0                      | 0                              | 0            | 0                                |                                |  |
| 11.                            | Chemicals                                | 34,789                 | (5,178)                  | 29,611 (3)              | 0                      | 29,611                         | 0            | 29,611                           |                                |  |
| 12.                            | Transportation                           | 32,421                 | 0                        | 32,421                  | 0                      | 32,421                         | 0            | 32,421                           |                                |  |
| 13.                            | Operating expenses charged to plant      | (42,578)               | 0                        | (42,578)                | 0                      | (42,578)                       | 0            | (42,578)                         |                                |  |
| 14.                            | Outside services - other                 | 28,201                 | 0                        | 28,201                  | 0                      | 28,201                         | 0            | 28,201                           |                                |  |
| 15.                            | Total maintenance expenses               | 514,271                | 10,590                   | 528,861                 | 0                      | 528,861                        | 0            | 528,861                          |                                |  |
| <b>General Expenses:</b>       |  |                        |                          |                         |                        |                                |              |                                  |                                |  |
| 16.                            | Salaries and wages                       | 180,244                | (53,157)                 | 127,087 (6)             | 0                      | 127,087                        | 0            | 127,087                          |                                |  |
| 17.                            | Office supplies and other office expense | 35,288                 | 0                        | 35,288                  | 0                      | 35,288                         | 0            | 35,288                           |                                |  |
| 18.                            | Regulatory commission expense            | 29,607                 | (13,413)                 | 16,194 (8)              | 0                      | 16,194                         | 0            | 16,194                           |                                |  |
| 19.                            | Pension and other benefits               | 85,797                 | 0                        | 85,797                  | 0                      | 85,797                         | 0            | 85,797                           |                                |  |
| 20.                            | Rent                                     | 14,171                 | 0                        | 14,171                  | 0                      | 14,171                         | 0            | 14,171                           |                                |  |
| 21.                            | Insurance                                | 42,581                 | 0                        | 42,581                  | 0                      | 42,581                         | 0            | 42,581                           |                                |  |
| 22.                            | Office utilities                         | 37,488                 | 0                        | 37,488                  | 0                      | 37,488                         | 0            | 37,488                           |                                |  |
| 23.                            | Miscellaneous                            | 7,992                  | (13,878)                 | (5,916) (9)             | 0                      | (5,916)                        | 0            | (5,916)                          |                                |  |
| 24.                            | Total general expenses                   | 433,138                | (80,448)                 | 352,690                 | 0                      | 352,690                        | 0            | 352,690                          |                                |  |
| <b>Depreciation and Taxes:</b> |  |                        |                          |                         |                        |                                |              |                                  |                                |  |
| 25.                            | Depreciation expense                     | 337,755                | 4,270                    | 332,035 (10)            | 0                      | 332,035                        | 0            | 332,035                          |                                |  |
| 26.                            | Amortization of CAC                      | (142,851)              | (32,247)                 | (175,098) (11)          | 0                      | (175,098)                      | 0            | (175,098)                        |                                |  |
| 27.                            | Amortization of PAA                      | (687)                  | 41,654                   | 40,967 (12)             | 0                      | 40,967                         | 0            | 40,967                           |                                |  |
| 28.                            | Amortization of ITC                      | 0                      | 0                        | 0                       | 0                      | 0                              | 0            | 0                                |                                |  |
| 29.                            | Franchise and other taxes                | 9,600                  | 0                        | 9,600                   | 0                      | 9,600                          | 0            | 9,600                            |                                |  |
| 30.                            | Property taxes                           | 9,715                  | 0                        | 9,715                   | 0                      | 9,715                          | 0            | 9,715                            |                                |  |
| 31.                            | Payroll taxes                            | 38,125                 | (161)                    | 37,964 (6)              | 0                      | 37,964                         | 0            | 37,964                           |                                |  |
| 32.                            | Regulatory fee                           | 0                      | 1,920                    | 1,920 (13)              | 585                    | 2,505 (13)                     | 508          | 2,423 (13)                       |                                |  |
| 33.                            | Gross receipts tax                       | 0                      | 0                        | 0                       | 0                      | 0                              | 0            | 0                                |                                |  |
| 34.                            | State income tax                         | 0                      | 2,231                    | 2,231 (14)              | 0                      | 2,231                          | 0            | 2,231                            |                                |  |
| 35.                            | Federal income tax                       | 0                      | 24,521                   | 24,521 (15)             | 0                      | 24,521                         | 0            | 24,521                           |                                |  |
| 36.                            | Total depreciation and taxes             | 241,667                | 42,188                   | 283,855                 | 0                      | 283,855                        | 0            | 283,855                          |                                |  |
| 37.                            | Total operating revenue deductions       | 1,193,076              | (27,670)                 | 1,165,406               | 150,799                | 1,316,205                      | 129,720      | 1,316,205                        |                                |  |
| 38.                            | Net operating income for a return        | \$177,460              | \$28,379                 | \$205,839               | \$267,283              | \$473,120                      | \$229,920    | \$443,739                        |                                |  |

---

CAROLINA WATER SERVICE, INC., OF NC

---

Docket No. W-354, Sub 356

FOOTNOTES TO SCHEDULE 3(d)

For The Test Year Ended December 31, 2016

Johnson Exhibit I  
Schedule 3(d)  
Page 2 of 2

BRADFIELD FARMS/FAIRFIELD HARBOUR SEWER OPERATIONS

- [1] Column (c) minus Column (a), unless otherwise footnoted.
- [2] Column (a) plus Column (b), unless otherwise footnoted.
- [3] Provided by Public Staff Engineer Casselberry.
- [4] Johnson Exhibit I, Schedule 3-1(d), Column (c), Line 5.
- [5] Johnson Exhibit I, Schedule 3-2, Column (d), Line 6.
- [6] Expense amount as calculated by the Public Staff.
- [7] Johnson Exhibit I, Schedule 3-3, Column (d), Line 7.
- [8] Johnson Exhibit I, Schedule 3-4, Column (g), Line 9.
- [9] Johnson Exhibit I, Schedule 3-5, Column (d), Line 3.
- [10] Johnson Exhibit I, Schedule 3-6, Column (d), Line 5.
- [11] Johnson Exhibit I, Schedule 3-6, Column (d), Line 10.
- [12] Johnson Exhibit I, Schedule 3-6, Column (d), Line 13.
- [13] Line 4 multiplied by 0.14%.
- [14] Johnson Exhibit I, Schedule 3-7(d), Column (a), Line 16.
- [15] Johnson Exhibit I, Schedule 3-7(d), Column (a), Line 18.
- [16] Column (e) minus Column (c), unless otherwise footnoted.
- [17] Column (c) plus Column (d), unless otherwise footnoted.
- [18] Johnson Exhibit I, Schedule 3-1(d), Column (c), Line 10.
- [19] Johnson Exhibit I, Schedule 3-2, Column (d), Line 9.
- [20] Johnson Exhibit I, Schedule 3-7(d), Column (b), Line 16.
- [21] Johnson Exhibit I, Schedule 3-7(d), Column (b), Line 18.
- [22] Column (g) minus Column (c), unless otherwise footnoted.
- [23] Column (e) plus Column (f), unless otherwise footnoted.
- [24] Revenue requirement as calculated by the Public Staff.
- [25] Johnson Exhibit I, Schedule 3-1(d), Column (c), Line 15.
- [26] Johnson Exhibit I, Schedule 3-2, Column (d), Line 12.
- [27] Johnson Exhibit I, Schedule 3-7(d), Column (c), Line 16.
- [28] Johnson Exhibit I, Schedule 3-7(d), Column (c), Line 18.

OFFICIAL COPY

Sep 19 2017

CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 356

ADJUSTMENT TO MISCELLANEOUS REVENUES

For The Test Year Ended December 31, 2016

Johnson Exhibit I

Schedule 3-1(a)

CWSNC WATER OPERATIONS

| Line No.                               | Item   | Amount Per Before Adjustment (a) | Public Staff Adjustments (b) | [3] | Amount Per Public Staff (c) | [4] |
|--|--|----------------------------------|------------------------------|-----|-----------------------------|-----|
| <u>Present Rates:</u>                  |  |                                  |                              |     |                             |     |
| 1.                                     | Forfeited discounts                                | \$40,796 [1]                     | \$36                         |     | \$40,832 [5]                |     |
| 2.                                     | Other water/sewer revenues                         | 95,795 [1]                       | 0                            |     | 95,795                      |     |
| 3.                                     | Antenna leases                                     | 0 [1]                            | 0                            |     | 0                           |     |
| 4.                                     | Sale of utility property                           | 0 [1]                            | 35,280                       |     | 35,280 [1]                  |     |
| 5.                                     | Total miscellaneous revenues (Sum of L1 thru L4)   | <u>\$136,591</u>                 | <u>\$35,316</u>              |     | <u>\$171,907</u>            |     |
| <u>Company Proposed Rates:</u>         |  |                                  |                              |     |                             |     |
| 6.                                     | Forfeited discounts                                | \$40,832 [2]                     | \$8,886                      |     | \$49,718 [6]                |     |
| 7.                                     | Other water/sewer revenues                         | 95,795 [2]                       | 0                            |     | 95,795                      |     |
| 8.                                     | Antenna leases                                     | 0 [2]                            | 0                            |     | 0                           |     |
| 9.                                     | Sale of utility property                           | 35,280 [2]                       | 0                            |     | 35,280                      |     |
| 10.                                    | Total miscellaneous revenues (Sum of L6 thru L9)   | <u>\$171,907</u>                 | <u>\$8,886</u>               |     | <u>\$180,793</u>            |     |
| <u>Public Staff Recommended Rates:</u> |  |                                  |                              |     |                             |     |
| 11.                                    | Forfeited discounts                                | \$40,832 [2]                     | \$6,189                      |     | \$47,021 [7]                |     |
| 12.                                    | Other water/sewer revenues                         | 95,795 [2]                       | 0                            |     | 95,795                      |     |
| 13.                                    | Antenna leases                                     | 0 [2]                            | 0                            |     | 0                           |     |
| 14.                                    | Sale of utility property                           | 35,280 [2]                       | 0                            |     | 35,280                      |     |
| 15.                                    | Total miscellaneous revenues (Sum of L11 thru L14) | <u>\$171,907</u>                 | <u>\$6,189</u>               |     | <u>\$178,096</u>            |     |

(1) Per examination of Company's financial records.

(2) Adjusted amount per Public Staff, Column (c), Lines 1 thru 4.

(3) Column (c) minus Column (a), unless otherwise footnoted.

(4) Column (a) plus Column (b), unless otherwise footnoted.

(5) Johnson Exhibit I, Schedule 3-1(a)(1), Column (a), Line 6.

(6) Johnson Exhibit I, Schedule 3-1(a)(1), Column (a), Line 9.

(7) Johnson Exhibit I, Schedule 3-1(a)(1), Column (a), Line 12.

**CAROLINA WATER SERVICE, INC., OF NC**  
Docket No. W-354, Sub 356  
**ADJUSTMENT TO MISCELLANEOUS REVENUES**  
For The Test Year Ended December 31, 2016

Johnson Exhibit I  
Schedule 3-1(b)

**CWSNC SEWER OPERATIONS**

| Line No.                                      | Item   | Amount Per Before Adjustment (a) | Public Staff Adjustments (b) | [3] | Amount Per Public Staff (c) | [4] |
|---|--|----------------------------------|------------------------------|-----|-----------------------------|-----|
| <b><u>Present Rates:</u></b>                  |  |                                  |                              |     |                             |     |
| 1.  | Forfeited discounts                                | \$31,911 [1]                     | (\$170)                      |     | \$31,741 [5]                |     |
| 2.  | Other water/sewer revenues                         | 74,931 [1]                       | 0                            |     | 74,931                      |     |
| 3.  | Antenna leases                                     | 0 [1]                            | 0                            |     | 0                           |     |
| 4.  | Sale of utility property                           | 0 [1]                            | 20,842                       |     | 20,842 [1]                  |     |
| 5.  | Total miscellaneous revenues (Sum of L1 thru L4)   | <u>\$106,842</u>                 | <u>\$20,672</u>              |     | <u>\$127,514</u>            |     |
| <b><u>Company Proposed Rates:</u></b>         |  |                                  |                              |     |                             |     |
| 6.  | Forfeited discounts                                | \$31,741 [2]                     | \$4,155                      |     | \$35,896 [6]                |     |
| 7.  | Other water/sewer revenues                         | 74,931 [2]                       | 0                            |     | 74,931                      |     |
| 8.  | Antenna leases                                     | 0 [2]                            | 0                            |     | 0                           |     |
| 9.  | Sale of utility property                           | 20,842 [2]                       | 0                            |     | 20,842                      |     |
| 10.   | Total miscellaneous revenues (Sum of L6 thru L9)   | <u>\$127,514</u>                 | <u>\$4,155</u>               |     | <u>\$131,669</u>            |     |
| <b><u>Public Staff Recommended Rates:</u></b> |  |                                  |                              |     |                             |     |
| 11.   | Forfeited discounts                                | \$31,741 [2]                     | \$2,353                      |     | \$34,094 [7]                |     |
| 12.   | Other water/sewer revenues                         | 74,931 [2]                       | 0                            |     | 74,931                      |     |
| 13.   | Antenna leases                                     | 0 [2]                            | 0                            |     | 0                           |     |
| 14.   | Sale of utility property                           | 20,842 [2]                       | 0                            |     | 20,842                      |     |
| 15.   | Total miscellaneous revenues (Sum of L11 thru L14) | <u>\$127,514</u>                 | <u>\$2,353</u>               |     | <u>\$129,867</u>            |     |

- [1] Per examination of Company's financial records.  
[2] Adjusted amount per Public Staff, Column (c), Lines 1 thru 4.  
[3] Column (c) minus Column (a), unless otherwise footnoted.  
[4] Column (a) plus Column (b), unless otherwise footnoted.  
[5] Johnson Exhibit I, Schedule 3-1(a)(1), Column (b), Line 6.  
[6] Johnson Exhibit I, Schedule 3-1(a)(1), Column (b), Line 9.  
[7] Johnson Exhibit I, Schedule 3-1(a)(1), Column (b), Line 12.

OFFICIAL COPY

Sep 19 2017

CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 356

ADJUSTMENT TO MISCELLANEOUS REVENUES  
For The Test Year Ended December 31, 2016

## BRADFELD/FAIRFIELD WATER OPERATIONS

Johnson Exhibit I  
Schedule 3-1(c)

| Line<br>No.                            | Item   | Amount Per<br>Before<br>Adjustment<br>(a) | Public Staff<br>Adjustments<br>(b) | [3] | Amount Per<br>Public Staff<br>(c) | [4] |
|--|--|---|------------------------------------|-----|-----------------------------------|-----|
| <u>Present Rates:</u>                  |  |   |                                    |     |                                   |     |
| 1.                                     | Forfeited discounts                                | \$2,436 [1]                               | \$4                                |     | \$2,440 [5]                       |     |
| 2.                                     | Other water/sewer revenues                         | 5,917 [1]                                 | 0                                  |     | 5,917                             |     |
| 3.                                     | Antenna leases                                     | 0 [1]                                     | 30,402                             |     | 30,402 [1]                        |     |
| 4.                                     | Sale of utility property                           | 0 [1]                                     | 593                                |     | 593 [1]                           |     |
| 5.                                     | Total miscellaneous revenues (Sum of L1 thru L4)   | <u>\$8,353</u>                            | <u>\$30,999</u>                    |     | <u>\$39,352</u>                   |     |
| <u>Company Proposed Rates:</u>         |  |   |                                    |     |                                   |     |
| 6.                                     | Forfeited discounts                                | \$2,440 [2]                               | \$1,060                            |     | \$3,500 [6]                       |     |
| 7.                                     | Other water/sewer revenues                         | 5,917 [2]                                 | 0                                  |     | 5,917                             |     |
| 8.                                     | Antenna leases                                     | 30,402 [2]                                | 0                                  |     | 30,402                            |     |
| 9.                                     | Sale of utility property                           | 593 [2]                                   | 0                                  |     | 593                               |     |
| 10.                                    | Total miscellaneous revenues (Sum of L6 thru L9)   | <u>\$39,352</u>                           | <u>\$1,060</u>                     |     | <u>\$40,412</u>                   |     |
| <u>Public Staff Recommended Rates:</u> |  |   |                                    |     |                                   |     |
| 11.                                    | Forfeited discounts                                | \$2,440 [2]                               | \$793                              |     | \$3,233 [7]                       |     |
| 12.                                    | Other water/sewer revenues                         | 5,917 [2]                                 | 0                                  |     | 5,917                             |     |
| 13.                                    | Antenna leases                                     | 30,402 [2]                                | 0                                  |     | 30,402                            |     |
| 14.                                    | Sale of utility property                           | 593 [2]                                   | 0                                  |     | 593                               |     |
| 15.                                    | Total miscellaneous revenues (Sum of L11 thru L14) | <u>\$39,352</u>                           | <u>\$793</u>                       |     | <u>\$40,145</u>                   |     |

[1] Per examination of Company's financial records.

[2] Adjusted amount per Public Staff, Column (c), Lines 1 thru 4.

[3] Column (c) minus Column (a), unless otherwise footnoted.

[4] Column (a) plus Column (b), unless otherwise footnoted.

[5] Johnson Exhibit I, Schedule 3-1(a)(1), Column (c), Line 6.

[6] Johnson Exhibit I, Schedule 3-1(a)(1), Column (c), Line 9.

[7] Johnson Exhibit I, Schedule 3-1(a)(1), Column (c), Line 12.



**CAROLINA WATER SERVICE, INC., OF NC**  
 Docket No. W-354, Sub 356  
**ADJUSTMENT TO MISCELLANEOUS REVENUES**  
 For The Test Year Ended December 31, 2016  
**BRADFIELD/FAIRFIELD SEWER OPERATIONS**

Johnson Exhibit I  
Schedule 3-1(d)

| Line No.                                      | Item   | Amount Per Before Adjustment (a) | Public Staff Adjustments (b) | [3] | Amount Per Public Staff (c) | [4] |
|---|--|----------------------------------|------------------------------|-----|-----------------------------|-----|
| <b><u>Present Rates:</u></b>                  |  |                                  |                              |     |                             |     |
| 1.  | Forfeited discounts                                | \$4,641 [1]                      | \$19                         |     | \$4,660 [5]                 |     |
| 2.  | Other water/sewer revenues                         | 11,274 [1]                       | 0                            |     | 11,274                      |     |
| 3.  | Antenna leases                                     | 0 [1]                            | 0                            |     | 0                           |     |
| 4.  | Sale of utility property                           | 0 [1]                            | 682                          |     | 682 [1]                     |     |
| 5.  | Total miscellaneous revenues (Sum of L1 thru L4)   | <u>\$15,915</u>                  | <u>\$701</u>                 |     | <u>\$16,616</u>             |     |
| <b><u>Company Proposed Rates:</u></b>         |  |                                  |                              |     |                             |     |
| 6.  | Forfeited discounts                                | \$4,660 [2]                      | \$1,434                      |     | \$6,094 [6]                 |     |
| 7.  | Other water/sewer revenues                         | 11,274 [2]                       | 0                            |     | 11,274                      |     |
| 8.  | Antenna leases                                     | 0 [2]                            | 0                            |     | 0                           |     |
| 9.  | Sale of utility property                           | 682 [2]                          | 0                            |     | 682                         |     |
| 10.   | Total miscellaneous revenues (Sum of L6 thru L9)   | <u>\$16,616</u>                  | <u>\$1,434</u>               |     | <u>\$18,050</u>             |     |
| <b><u>Public Staff Recommended Rates:</u></b> |  |                                  |                              |     |                             |     |
| 11.   | Forfeited discounts                                | \$4,660 [2]                      | \$1,233                      |     | \$5,893 [7]                 |     |
| 12.   | Other water/sewer revenues                         | 11,274 [2]                       | 0                            |     | 11,274                      |     |
| 13.   | Antenna leases                                     | 0 [2]                            | 0                            |     | 0                           |     |
| 14.   | Sale of utility property                           | 682 [2]                          | 0                            |     | 682                         |     |
| 15.   | Total miscellaneous revenues (Sum of L11 thru L14) | <u>\$16,616</u>                  | <u>\$1,233</u>               |     | <u>\$17,849</u>             |     |

- [1] Per examination of Company's financial records.  
 [2] Adjusted amount per Public Staff, Column (c), Lines 1 thru 4.  
 [3] Column (c) minus Column (a), unless otherwise footnoted.  
 [4] Column (a) plus Column (b), unless otherwise footnoted.  
 [5] Johnson Exhibit I, Schedule 3-1(a)(1), Column (d), Line 6.  
 [6] Johnson Exhibit I, Schedule 3-1(a)(1), Column (d), Line 9.  
 [7] Johnson Exhibit I, Schedule 3-1(a)(1), Column (d), Line 12.

**CAROLINA WATER SERVICE, INC., OF NC**  
Docket No. W-354, Sub 356  
**CALCULATION OF FORFEITED DISCOUNTS**  
For The Test Year Ended December 31, 2016

Johnson Exhibit I  
Schedule 3-1(a)[1]

| Line No.                                      | Item                                     | CWSNC Water (a)  | CWSNC Sewer (b)  | BFF/FFH Water (c) | BFF/FFH Sewer (d) |
|---|--|------------------|------------------|-------------------|-------------------|
| <b><u>Test Year:</u></b>                      |  |                  |                  |                   |                   |
| 1.  | Service revenues                         | \$15,235,981 [1] | \$11,625,156 [1] | \$708,950 [1]     | \$1,350,906 [1]   |
| 2.  | Forfeited discounts                      | \$40,796 [1]     | \$31,911 [1]     | \$2,436 [1]       | \$4,641 [1]       |
| 3.  | Forfeited discounts percentage (L2 / L1) | 0.27%            | 0.27%            | 0.34%             | 0.34%             |
| <b><u>Present Rates:</u></b>                  |  |                  |                  |                   |                   |
| 4.  | Service revenues                         | \$15,122,929 [2] | \$11,755,741 [5] | \$717,509 [8]     | \$1,370,666 [11]  |
| 5.  | Forfeited discounts percentage           | 0.27%            | 0.27%            | 0.34%             | 0.34%             |
| 6.  | Forfeited discounts (L4 x L5)            | \$40,832         | \$31,741         | \$2,440           | \$4,660           |
| <b><u>Company Proposed Rates:</u></b>         |  |                  |                  |                   |                   |
| 7.  | Service revenues                         | \$18,414,144 [3] | \$13,294,803 [6] | \$1,029,392 [9]   | \$1,792,244 [12]  |
| 8.  | Forfeited discounts percentage           | 0.27%            | 0.27%            | 0.34%             | 0.34%             |
| 9.  | Forfeited discounts (L7 x L8)            | \$49,718         | \$35,896         | \$3,500           | \$6,094           |
| <b><u>Public Staff Recommended Rates:</u></b> |  |                  |                  |                   |                   |
| 10.   | Service revenues                         | \$17,415,028 [4] | \$12,627,226 [7] | \$950,755 [10]    | \$1,733,316 [13]  |
| 11.   | Forfeited discounts percentage           | 0.27%            | 0.27%            | 0.34%             | 0.34%             |
| 12.   | Forfeited discounts (L10 x L11)          | \$47,021         | \$34,094         | \$3,233           | \$5,893           |

- [1] Per examination of Company's financial records.  
[2] Johnson Exhibit I, Schedule 3(a), Column (c), Line 1.  
[3] Johnson Exhibit I, Schedule 3(a), Column (e), Line 1.  
[4] Johnson Exhibit I, Schedule 3(a), Column (g), Line 1.  
[5] Johnson Exhibit I, Schedule 3(b), Column (c), Line 1.  
[6] Johnson Exhibit I, Schedule 3(b), Column (e), Line 1.  
[7] Johnson Exhibit I, Schedule 3(b), Column (g), Line 1.

- [8] Johnson Exhibit I, Schedule 3(c), Column (c), Line 1.  
[9] Johnson Exhibit I, Schedule 3(c), Column (e), Line 1.  
[10] Johnson Exhibit I, Schedule 3(c), Column (g), Line 1.  
[11] Johnson Exhibit I, Schedule 3(d), Column (c), Line 1.  
[12] Johnson Exhibit I, Schedule 3(d), Column (e), Line 1.  
[13] Johnson Exhibit I, Schedule 3(d), Column (g), Line 1.

## CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 356

## CALCULATION OF UNCOLLECTIBLE ACCOUNTS

For The Test Year Ended December 31, 2016

Johnson Exhibit I

Schedule 3-2

| Line No.                               | Item  | CWSNC Water<br>(a) | CWSNC Sewer<br>(b) | BFF/FFH Water<br>(c) | BFF/FFH Sewer<br>(d) |
|--|---|--------------------|--------------------|----------------------|----------------------|
| <u>Test Year:</u>                      |   |                    |                    |                      |                      |
| 1.                                     | Service revenues                            | \$15,235,981 [1]   | \$11,625,156 [1]   | \$708,950 [1]        | \$1,350,906 [1]      |
| 2.                                     | Uncollectible accounts                      | \$92,241 [1]       | \$72,151 [1]       | \$8,294 [1]          | \$15,805 [1]         |
| 3.                                     | Uncollectible accounts percentage (L2 / L1) | 0.61%              | 0.62%              | 1.17%                | 1.17%                |
| <u>Present Rates:</u>                  |   |                    |                    |                      |                      |
| 4.                                     | Service revenues                            | \$15,122,929 [2]   | \$11,755,741 [5]   | \$717,509 [8]        | \$1,370,666 [11]     |
| 5.                                     | Uncollectible accounts percentage           | 0.61%              | 0.62%              | 1.17%                | 1.17%                |
| 6.                                     | Uncollectible accounts (L4 x L5)            | \$92,250           | \$72,886           | \$8,395              | \$16,037             |
| <u>Company Proposed Rates:</u>         |   |                    |                    |                      |                      |
| 7.                                     | Service revenues                            | \$18,414,144 [3]   | \$13,294,803 [6]   | \$1,029,392 [9]      | \$1,792,244 [12]     |
| 8.                                     | Uncollectible accounts percentage           | 0.61%              | 0.62%              | 1.17%                | 1.17%                |
| 9.                                     | Uncollectible accounts (L7 x L8)            | \$112,326          | \$82,428           | \$12,044             | \$20,969             |
| <u>Public Staff Recommended Rates:</u> |   |                    |                    |                      |                      |
| 10.                                    | Service revenues                            | \$17,415,028 [4]   | \$12,627,226 [7]   | \$950,755 [10]       | \$1,733,316 [13]     |
| 11.                                    | Uncollectible accounts percentage           | 0.61%              | 0.62%              | 1.17%                | 1.17%                |
| 12.                                    | Uncollectible accounts (L10 x L11)          | \$106,232          | \$78,289           | \$11,124             | \$20,280             |

[1] Per examination of Company's financial records.

[2] Henry Exhibit I, Schedule 3(a), Column (c), Line 1.

[3] Henry Exhibit I, Schedule 3(a), Column (e), Line 1.

[4] Henry Exhibit I, Schedule 3(a), Column (g), Line 1.

[5] Henry Exhibit I, Schedule 3(b), Column (c), Line 1.

[6] Henry Exhibit I, Schedule 3(b), Column (e), Line 1.

[7] Henry Exhibit I, Schedule 3(b), Column (g), Line 1.

[8] Henry Exhibit I, Schedule 3(c), Column (c), Line 1.

[9] Henry Exhibit I, Schedule 3(c), Column (e), Line 1.

[10] Henry Exhibit I, Schedule 3(c), Column (g), Line 1.

[11] Henry Exhibit I, Schedule 3(d), Column (c), Line 1.

[12] Henry Exhibit I, Schedule 3(d), Column (e), Line 1.

[13] Henry Exhibit I, Schedule 3(d), Column (g), Line 1.

CAROLINA WATER SERVICE, INC., OF NC  
Docket No. W-354, Sub 356  
**ADJUSTMENT TO MAINTENANCE AND REPAIR**  
**For The Test Year Ended December 31, 2016**

Johnson Exhibit I  
Schedule 3-3

| <u>Line No.</u> | <u>Item</u>  | <u>CWSNC Water</u><br><u>(a)</u> | <u>CWSNC Sewer</u><br><u>(b)</u> | <u>BF/FH Water</u><br><u>(c)</u> | <u>BF/FH Sewer</u><br><u>(d)</u> |
|-----------------|--|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| 1.              | Maintenance and repair per application                   | <u>\$1,097,879</u>               | <u>\$1,435,866</u>               | <u>\$54,603</u>                  | <u>\$155,718</u>                 |
| 2.              | Adjustment to deferred maintenance and repair            | (178,450) [1]                    | 115,393 [3]                      | 706 [4]                          | 1,265 [5]                        |
| 3.              | Adjustment to reclassify amount to purchase water        | (21,221) [2]                     | 0                                | 0                                | 0                                |
| 4.              | Adjustment to sludge hauling                             | 0                                | (18,342) [2]                     | 0                                | (1,855) [2]                      |
| 5.              | Adjustment to permit fees                                | <u>4,728 [2]</u>                 | <u>(2,170) [2]</u>               | <u>(4,728) [2]</u>               | <u>0</u>                         |
| 6.              | Adjustment to maintenance and repair (Sum of L2 thru L5) | <u>(194,943)</u>                 | <u>94,881</u>                    | <u>(4,022)</u>                   | <u>(590)</u>                     |
| 7.              | Maintenance and repair per Public Staff (L1 + L6)        | <u><u>\$902,936</u></u>          | <u><u>\$1,530,747</u></u>        | <u><u>\$50,581</u></u>           | <u><u>\$155,128</u></u>          |

[1] Johnson Exhibit I, Schedule 3-3(a), Column (a), Line 3.

[2] Provided by Public Staff Engineer Casselberry.

[3] Johnson Exhibit I, Schedule 3-3(a), Column (b), Line 3.

[4] Johnson Exhibit I, Schedule 3-3(a), Column (c), Line 3.

[5] Johnson Exhibit I, Schedule 3-3(a), Column (d), Line 3.

**CAROLINA WATER SERVICE, INC., OF NC**  
**Docket No. W-354, Sub 356**  
**ADJUSTMENT TO DEFERRED MAINTENANCE AND REPAIR**  
**For The Test Year Ended December 31, 2016**

Johnson Exhibit I  
Schedule 3-3(a)

| Line<br>No. | Item  | CWSNC<br>Water<br>(a) | CWSNC<br>Sewer<br>(b) | BF/FH<br>Water<br>(c) | BF/FH<br>Sewer<br>(d) |
|-------------|---|-----------------------|-----------------------|-----------------------|-----------------------|
| 1.          | Annual deferred maintenance and repair per Public Staff | 273,775 [1]           | 382,549 [3]           | 18,827 [4]            | 22,098 [5]            |
| 2.          | Deferred maintenance and repair per application         | 452,225 [2]           | 267,156 [2]           | 18,121 [2]            | 20,833 [2]            |
| 3.          | Adjustment to deferred maintenance and repair (L1 - L2) | <u>(\$178,450)</u>    | <u>\$115,393</u>      | <u>\$706</u>          | <u>\$1,265</u>        |

[1] Johnson Exhibit I, Schedule 2-11(a), Column (e), Line 4.

[2] Per examination of Company's financial records.

[3] Johnson Exhibit I, Schedule 2-11(a), Column (e), Line 7.

[4] Johnson Exhibit I, Schedule 2-11(a), Column (e), Line 11.

[5] Johnson Exhibit I, Schedule 2-11(a), Column (e), Line 12.

CAROLINA WATER SERVICE, INC., OF NC  
Docket No. W-354, Sub 356  
**CALCULATION OF REGULATORY COMMISSION EXPENSE**  
For The Test Year Ended December 31, 2016

Johnson Exhibit I  
Schedule 3-4

| Line No. | Item  | Amount Per Application (a) | Public Staff Adjustment (b) | [1] | Amount Per Public Staff (c) | CWSNC Water (d)     | CWSNC Sewer (e)     | BF/FH Water (f)    | BF/FH Sewer (g)    |
|----------|---|----------------------------|-----------------------------|-----|-----------------------------|---------------------|---------------------|--------------------|--------------------|
| 1.       | Rate case expenses for current proceeding                 | <u>\$409,390</u>           | <u>\$14,946</u>             |     | \$424,336 [2]               |                     |                     |                    |                    |
| 2.       | Amortization period in years                              |                            |                             |     | <u>3</u>                    |                     |                     |                    |                    |
| 3.       | Annual rate case expense for current proceeding (L1 / L2) |                            |                             |     | <u>141,445</u>              | <u>\$77,554</u> [4] | <u>\$45,814</u> [5] | <u>\$8,402</u> [6] | <u>\$9,675</u> [7] |
| 4.       | Unamortized balance of rate case expense (L1 - L3)        |                            |                             |     | <u>282,891</u>              | <u>155,109</u> [4]  | <u>91,628</u> [5]   | <u>16,804</u> [6]  | <u>19,350</u> [7]  |
| 5.       | Sub 344 unamortized rate case expense                     | <u>\$557,990</u>           | <u>(\$272,051)</u>          |     | 285,939 [3]                 |                     |                     |                    |                    |
| 6.       | Amortization period in years                              |                            |                             |     | <u>3</u>                    |                     |                     |                    |                    |
| 7.       | Sub 344 unamortized annual rate case expense (L5 / L6)    |                            |                             |     | <u>95,313</u>               | <u>52,260</u> [4]   | <u>30,872</u> [5]   | <u>5,662</u> [6]   | <u>6,519</u> [7]   |
| 8.       | Unamortized balance of rate case expense (L5 - L7)        |                            |                             |     | <u>190,626</u>              | <u>104,520</u> [4]  | <u>61,744</u> [5]   | <u>11,323</u> [6]  | <u>13,039</u> [7]  |
| 9.       | Total annual rate case expense (L3 + L7)                  |                            |                             |     | <u>\$236,758</u>            | <u>\$129,814</u>    | <u>\$76,686</u>     | <u>\$14,064</u>    | <u>\$16,194</u>    |
| 10.      | Total unamortized balance of rate case expense (L4 + L8)  |                            |                             |     | <u>\$473,517</u>            | <u>\$259,629</u>    | <u>\$153,372</u>    | <u>\$28,127</u>    | <u>\$32,389</u>    |

[1] Column (c) minus Column (a).

[2] Per examination of Company's financial records.

[3] Calculated base on amount approved in prior rate cases.

[4] Column (c) multiplied by CWSNC Uniform water allocation factor of 54.83%.

[5] Column (c) multiplied by CWSNC Uniform sewer allocation factor of 32.39%.

[6] Column (c) multiplied by BF/FH water allocation factor of 5.94%.

[7] Column (c) multiplied by BF/FH sewer allocation factor of 6.84%.

Sep 19 2017

OFFICIAL COPY

**CAROLINA WATER SERVICE, INC., OF NC**  
**Docket No. W-354, Sub 356**  
**ADJUSTMENT TO MISCELLANEOUS EXPENSE**  
**For The Test Year Ended December 31, 2016**

Johnson Exhibit I  
Schedule 3-5

Sep 19 2017 OFFICIAL COPY

| Line<br>No. | Item   | CWSNC<br>Water<br>(a)   | CWSNC<br>Sewer<br>(b)   | BF/FH<br>Water<br>(c)   | BF/FH<br>Sewer<br>(d)   |
|-------------|--|-------------------------|-------------------------|-------------------------|-------------------------|
| 1.          | Miscellaneous expense per application                                    | \$88,597                | \$54,926                | \$6,818                 | \$7,962                 |
| 2.          | Adjustment to reclassify excess deferred taxes from depreciation expense | <u>(98,585) [1]</u>     | <u>(61,008) [1]</u>     | <u>(11,504) [1]</u>     | <u>(13,878) [1]</u>     |
| 3.          | Miscellaneous expense per Public Staff (L1 + L2)                         | <u><u>(\$9,988)</u></u> | <u><u>(\$6,082)</u></u> | <u><u>(\$4,686)</u></u> | <u><u>(\$5,916)</u></u> |

[1] Per examination of Company's financial records.

**CAROLINA WATER SERVICE, INC., OF NC**  
Docket No. W-354, Sub 356  
**CALCULATION OF DEPRECIATION AND  
AMORTIZATION EXPENSE**  
For The Test Year Ended December 31, 2016

Johnson Exhibit I  
Schedule 3-6

| Line No. | Item   | CWSNC Water<br>(a)  | CWSNC Sewer<br>(b)  | BF/FH Water<br>(c) | BF/FH Sewer<br>(d) |
|----------|--|---------------------|---------------------|--------------------|--------------------|
| 1.       | Depreciation on direct plant                   | \$2,557,024 [1]     | \$2,073,884 [9]     | \$95,988 [15]      | \$294,664 [19]     |
| 2.       | Depreciation on allocated plant                | 279,303 [2]         | 156,486 [2]         | 34,197 [2]         | 37,371 [2]         |
| 3.       | Gain on sale                                   | (50,953) [3]        | (25,957) [10]       | 0                  | 0                  |
| 4.       | Excess book value                              | (11,970) [4]        | (17,954) [11]       | 0                  | 0                  |
| 5.       | Total depreciation expense (Sum of L1 thru L4) | <u>\$2,773,404</u>  | <u>\$2,186,459</u>  | <u>\$130,185</u>   | <u>\$332,035</u>   |
| 6.       | Contributions in aid of construction           | (\$28,589,110) [5]  | (\$28,067,843) [12] | (\$2,087,178) [16] | (\$7,088,979) [20] |
| 7.       | Advances in aid of construction                | (23,760) [6]        | (9,180) [6]         | 0                  | 0                  |
| 8.       | Depreciable CIAC and AIA (L6 + L7)             | <u>(28,612,870)</u> | <u>(28,077,023)</u> | <u>(2,087,178)</u> | <u>(7,088,979)</u> |
| 9.       | Amortization rate                              | 2.63% [7]           | 2.69% [13]          | 2.10% [17]         | 2.47% [21]         |
| 10.      | CIAC and AIA amortization expense (L8 x L9)    | <u>(\$752,518)</u>  | <u>(\$755,272)</u>  | <u>(\$43,831)</u>  | <u>(\$175,098)</u> |
| 11.      | Purchase acquisition adjustment                | (\$4,195,580) [8]   | (\$627,070) [14]    | \$520,390 [18]     | \$1,658,577 [22]   |
| 12.      | Amortization rate                              | 2.63% [7]           | 2.69% [13]          | 2.10% [17]         | 2.47% [21]         |
| 13.      | PAA amortization expense (L11 x L12)           | <u>(\$110,344)</u>  | <u>(\$16,868)</u>   | <u>\$10,928</u>    | <u>\$40,967</u>    |

[1] Johnson Exhibit I, Schedule 3-6(a), Column (c), Line 46.

[2] Calculated by the Public Staff based on information provided by the Company.

[3] Johnson Exhibit I, Schedule 2-7, Column (a), Line 9.

[4] Johnson Exhibit I, Schedule 2-9, Column (b), Line 7.

[5] Johnson Exhibit I, Schedule 2-4, Column (a), Line 5.

[6] Per examination of Company's financial records.

[7] Johnson Exhibit I, Schedule 3-6(a), Column (d), Line 46.

[8] Johnson Exhibit I, Schedule 2-8, Column (a), Line 5.

[9] Johnson Exhibit I, Schedule 3-6(b), Column (c), Line 58.

[10] Johnson Exhibit I, Schedule 2-7, Column (b), Line 9.

[11] Johnson Exhibit I, Schedule 2-9, Column (b), Line 12.

[12] Johnson Exhibit I, Schedule 2-4, Column (d), Line 5.

[13] Johnson Exhibit I, Schedule 3-6(b), Column (d), Line 58.

[14] Johnson Exhibit I, Schedule 2-8, Column (d), Line 5.

[15] Johnson Exhibit I, Schedule 3-6(c), Column (c), Line 46.

[16] Johnson Exhibit I, Schedule 2-4, Column (g), Line 5.

[17] Johnson Exhibit I, Schedule 3-6(c), Column (d), Line 46.

[18] Johnson Exhibit I, Schedule 2-8, Column (g), Line 5.

[19] Johnson Exhibit I, Schedule 3-6(d), Column (c), Line 58.

[20] Johnson Exhibit I, Schedule 2-4, Column (j), Line 5.

[21] Johnson Exhibit I, Schedule 3-6(d), Column (d), Line 58.

[22] Johnson Exhibit I, Schedule 2-8, Column (j), Line 5.



CAROLINA WATER SERVICE, INC., OF NC  
Docket No. W-354, Sub 356  
CALCULATION OF DIRECT PLANT  
DEPRECIATION EXPENSE  
For The Test Year Ended December 31, 2016  
CWSNC WATER OPERATIONS

Johnson Exhibit I  
Schedule 3-6(a)

| Line No. | Account No. | Item  | Plant In Service (a) | Depreciation Rate (b) | Annual Depreciation (c) | Composite Rate (d) |
|----------|-------------|---|----------------------|-----------------------|-------------------------|--------------------|
| 1.       | 1020        | Organization                                | \$464,059            | 2.50%                 | \$11,602                |                    |
| 2.       | 1025        | Franchises                                  | 111,898              | 2.50%                 | 2,797                   |                    |
| 3.       | 1030        | Land & land rights pump                     | 71,187               | 0.00%                 | 0                       |                    |
| 4.       | 1035        | Land & land rights water tr.                | 357,109              | 0.00%                 | 0                       |                    |
| 5.       | 1040        | Land & land rights trans.                   | 1,914                | 0.00%                 | 0                       |                    |
| 6.       | 1045        | Land & land rights gen. plt.                | 542,749              | 0.00%                 | 0                       |                    |
| 7.       | 1050        | Struct & improv. src. supply                | 4,257,363            | 2.00%                 | 85,147                  |                    |
| 8.       | 1055        | Struct & improv. wtr. trt. plt.             | 1,349,796            | 2.00%                 | 26,996                  |                    |
| 9.       | 1060        | Struct & improv. trans. dist.               | 220,420              | 2.00%                 | 4,408                   |                    |
| 10.      | 1065        | Struct & improv. gen. plt.                  | 316,884              | 2.00%                 | 6,338                   |                    |
| 11.      | 1070        | Collecting reservoirs                       | 12,730               | 2.00%                 | 255                     |                    |
| 12.      | 1080        | Wells & springs                             | 13,730,300           | 2.00%                 | 274,606                 |                    |
| 13.      | 1035        | Infiltration gallery                        | 45,185               | 2.50%                 | 1,130                   |                    |
| 14.      | 1090        | Supply mains                                | 458,179              | 1.00%                 | 4,582                   |                    |
| 15.      | 1095        | Power generation equip.                     | 120,121              | 10.00%                | 12,012                  |                    |
| 16.      | 1100        | Electric pump equip. src. plt.              | 2,379,377            | 14.29%                | 340,013                 |                    |
| 17.      | 1105        | Electric pump equip. wtr.                   | 7,935,276            | 3.33%                 | 264,245                 |                    |
| 18.      | 1110        | Electric pump equip. trans.                 | 2,136,599            | 14.29%                | 305,320                 |                    |
| 19.      | 1115        | Water treatment equip.                      | 3,764,934            | 2.50%                 | 94,123                  |                    |
| 20.      | 1120        | Dist. resv. & standpipes                    | 7,547,141            | 2.00%                 | 150,943                 |                    |
| 21.      | 1125        | Trans. & distr. mains                       | 30,013,522           | 1.00%                 | 300,135                 |                    |
| 22.      | 1130        | Service lines                               | 11,053,502           | 2.00%                 | 221,070                 |                    |
| 23.      | 1135        | Meters                                      | 5,120,163            | 3.33%                 | 170,501                 |                    |
| 24.      | 1140        | Meter installations                         | 1,162,402            | 3.33%                 | 38,708                  |                    |
| 25.      | 1145        | Hydrants                                    | 1,147,805            | 2.50%                 | 28,698                  |                    |
| 26.      | 1150        | Backflow prevention devic.                  | 23,671               | 10.00%                | 2,367                   |                    |
| 27.      | 1160        | Other plt. & misc. equip. src. su.          | 260                  | 2.50%                 | 7                       |                    |
| 28.      | 1165        | Other plt. & misc. equip. wtr.              | 6,262                | 2.50%                 | 157                     |                    |
| 29.      | 1175        | Office struct & improv.                     | 95,787               | 10.00%                | 9,579                   |                    |
| 30.      | 1180        | Office furn. & equip.                       | 353,258              | 10.00%                | 35,326                  |                    |
| 31.      | 1185        | Stores equipment                            | 3,478                | 3.33%                 | 116                     |                    |
| 32.      | 1190        | Toolshop & misc. equip.                     | 1,340,564            | 5.00%                 | 67,028                  |                    |
| 33.      | 1195        | Laboratory equipment                        | 150,858              | 10.00%                | 15,086                  |                    |
| 34.      | 1200        | Power operated equip.                       | 307,450              | 10.00%                | 30,745                  |                    |
| 35.      | 1205        | Communication equip.                        | 320,956              | 10.00%                | 32,096                  |                    |
| 36.      | 1210        | Misc. equipment                             | 183,506              | 3.33%                 | 6,111                   |                    |
| 37.      | 1215        | Water plant allocated                       | 207,809              | 6.67%                 | 13,861                  |                    |
| 38.      | 1220        | Other tangible plt. water                   | 36,650               | 2.50%                 | 916                     |                    |
| 39.      | 1555        | Transportation equip.                       | 0                    | 0.00%                 | 0                       |                    |
| 40.      | 1530        | Mainframe computer - wtr                    | 0                    | 2.50%                 | 0                       |                    |
| 41.      | 1535        | Mini computer - wtr                         | (7,037)              | 0.00%                 | 0                       |                    |
| 42.      | 1590        | Comp. system cost - wtr                     | 59,862               | 0.00%                 | 0                       |                    |
| 43.      | 1595        | Micro system cost - wtr                     | 0                    | 0.00%                 | 0                       |                    |
| 44.      | 1805        | Plt. held for future use                    | (95,528)             | 0.00%                 | 0                       |                    |
| 45.      |             | Pro forma plant additions                   | 0                    | 0.00%                 | 0                       |                    |
| 46.      |             | Total plant in service (Sum of L1 thru L45) | \$97,308,531         |                       | \$2,557,024             | 2.63% (4)          |

[1] Johnson Exhibit I, Schedule 2-1(a)(1), Column (d).

[2] Depreciation rates approved in Docket No. W-354, Sub 344.

[3] Column (a) multiplied by Column (b).

[4] Column (c) divided by Column (a), Line 46.

## CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 356

## CALCULATION OF DIRECT PLANT

## DEPRECIATION EXPENSE

For The Test Year Ended December 31, 2016

## CWSNC SEWER OPERATIONS

Johnson Exhibit I  
Schedule 3-6(b)

| Line No. | Account No. | Item  | Plant In Service (a) | Depreciation Rate (b) | Annual Depreciation (c) | Composite Rate (d) |
|----------|-------------|---|----------------------|-----------------------|-------------------------|--------------------|
| 1.       | 1245        | Organization                                | \$907,337            | 2.50%                 | \$22,683                |                    |
| 2.       | 1250        | Franchises intang. plt.                     | 127,476              | 2.50%                 | 3,187                   |                    |
| 3.       | 1270        | Land & land rights trmnt plt                | 39,167               | 0.00%                 | 0                       |                    |
| 4.       | 1275        | Land & land rights reclaim.                 | 1,150                | 0.00%                 | 0                       |                    |
| 5.       | 1285        | Land & land rights gen. plt.                | 213,811              | 0.00%                 | 0                       |                    |
| 6.       | 1290        | Struct/improv. coll. plt.                   | 67,055               | 2.00%                 | 1,341                   |                    |
| 7.       | 1295        | Struct/improv. pump plt. ls.                | 6,270,284            | 2.00%                 | 125,406                 |                    |
| 8.       | 1300        | Struct/improv. treat. plt.                  | 18,512,949           | 2.50%                 | 462,824                 |                    |
| 9.       | 1305        | Struct/improv. reclaim. wtr.                | 3,271                | 2.50%                 | 82                      |                    |
| 10.      | 1310        | Struct/improv. reclaim. wtr.                | 179,730              | 2.50%                 | 4,493                   |                    |
| 11.      | 1315        | Struct/improv. gen. plt.                    | 1,644,555            | 2.00%                 | 32,891                  |                    |
| 12.      | 1320        | Power gen. equip. coll. plt.                | 0                    | 10.00%                | 0                       |                    |
| 13.      | 1325        | Power gen. equip. pump plt.                 | 52,159               | 10.00%                | 5,216                   |                    |
| 14.      | 1330        | Power gen. equip. treat. plt.               | 231,471              | 10.00%                | 23,147                  |                    |
| 15.      | 1345        | Sewer force main/serv. lin.                 | 3,517,490            | 1.33%                 | 46,783                  |                    |
| 16.      | 1350        | Sewer gravity main                          | 15,914,899           | 1.00%                 | 159,149                 |                    |
| 17.      | 1353        | Manholes                                    | 705,741              | 1.00%                 | 7,057                   |                    |
| 18.      | 1355        | Special coll. structures                    | 6,502                | 2.00%                 | 130                     |                    |
| 19.      | 1360        | Services to customers                       | 1,300,979            | 1.33%                 | 17,303                  |                    |
| 20.      | 1365        | Flow measure devices                        | 97,398               | 4.00%                 | 3,896                   |                    |
| 21.      | 1370        | Flow measure install                        | 968                  | 4.00%                 | 39                      |                    |
| 22.      | 1375        | Receiving wells                             | 88,606               | 2.00%                 | 1,772                   |                    |
| 23.      | 1380        | Pumping equipment pump plt.                 | 3,320,205            | 14.29%                | 474,457                 |                    |
| 24.      | 1385        | Pumping equipment reclaim.                  | 25,668               | 14.29%                | 3,610                   |                    |
| 25.      | 1390        | Pumping equipment rcl. wtr.                 | 30,025               | 14.29%                | 4,291                   |                    |
| 26.      | 1395        | Treat./disp. equip. lagoon                  | 579,636              | 2.50%                 | 14,491                  |                    |
| 27.      | 1400        | Treat./disp. equip. trt. plt.               | 18,689,753           | 2.50%                 | 467,244                 |                    |
| 28.      | 1405        | Treat./disp. equip. rct. wtr.               | 13,251               | 2.50%                 | 331                     |                    |
| 29.      | 1410        | Plant sewers treat. plt.                    | 3,929,055            | 2.50%                 | 98,226                  |                    |
| 30.      | 1415        | Plant sewers reclaim wtr.                   | 5,155                | 2.50%                 | 129                     |                    |
| 31.      | 1420        | Outfall lines                               | 98,304               | 1.00%                 | 983                     |                    |
| 32.      | 1425        | Other plt. tangible                         | 3,676                | 2.50%                 | 92                      |                    |
| 33.      | 1430        | Other plt. collection                       | 21,142               | 2.50%                 | 529                     |                    |
| 34.      | 1435        | Other plt. pump                             | 48,131               | 2.50%                 | 1,203                   |                    |
| 35.      | 1440        | Other plt. treatment                        | 36,518               | 2.50%                 | 913                     |                    |
| 36.      | 1445        | Other plt. reclaim wtr. trt.                | 650                  | 2.50%                 | 16                      |                    |
| 37.      | 1450        | Other plt. reclaim wtr. dis.                | 460                  | 2.50%                 | 12                      |                    |
| 38.      | 1455        | Office struct & improv.                     | 26,899               | 10.00%                | 2,690                   |                    |
| 39.      | 1460        | Office furn. & equip.                       | 27,718               | 10.00%                | 2,772                   |                    |
| 40.      | 1465        | Stores equipment                            | 3,929                | 3.33%                 | 131                     |                    |
| 41.      | 1470        | Tool shop & misc. equip.                    | 179,616              | 5.00%                 | 8,981                   |                    |
| 42.      | 1475        | Laboratory equipment                        | 109,490              | 10.00%                | 10,949                  |                    |
| 43.      | 1480        | Power operated equip.                       | 348,789              | 10.00%                | 34,879                  |                    |
| 44.      | 1485        | Communication equip.                        | 73,595               | 10.00%                | 7,360                   |                    |
| 45.      | 1490        | Misc equip. sewer                           | 19,105               | 3.33%                 | 636                     |                    |
| 46.      | 1495        | Sewer plant allocated                       | 526,952              | 6.67%                 | 35,148                  |                    |
| 47.      | 1500        | Other tangible plt. sewer                   | 1,776                | 2.50%                 | 44                      |                    |
| 48.      | 1535        | Reuse dist. reservoirs                      | 3,417                | 2.00%                 | 68                      |                    |
| 49.      | 1540        | Reuse transmission & dist.                  | 55,016               | 2.00%                 | 1,100                   |                    |
| 50.      | 1555        | Transportation equip.                       | 0                    | 0.00%                 | 0                       |                    |
| 51.      | 1575        | Desktop computer - wtr                      | 0                    | 0.00%                 | 0                       |                    |
| 52.      | 1590        | Mainframe computer - wtr                    | 0                    | 0.00%                 | 0                       |                    |
| 53.      | 1585        | Mini computer - wtr                         | (4,157)              | 0.00%                 | 0                       |                    |
| 54.      | 1590        | Comp. system cost - wtr                     | 35,364               | 0.00%                 | 0                       |                    |
| 55.      | 1595        | Micro system cost - wtr                     | 0                    | 0.00%                 | 0                       |                    |
| 56.      | 1805        | Plt. held for future use                    | (514,608)            | 0.00%                 | 0                       |                    |
| 57.      |             | Pro forma plant additions                   | 0                    | 0.00%                 | 0                       |                    |
| 58.      |             | Total plant in service (Sum of 11 thru 157) | \$76,978,523         |                       | \$2,073,884             | 2.69% (4)          |

(1) Johnson Exhibit I, Schedule 2-1(b)(1), Column (d).

(2) Depreciation rates approved in Docket No. W-354, Sub 344.

(3) Column (a) multiplied by Column (b).

(4) Column (c) divided by Column (a), Line 58.

CAROLINA WATER SERVICE, INC., OF NC  
Docket No. W-354, Sub 356  
CALCULATION OF DIRECT PLANT  
DEPRECIATION EXPENSE  
For The Test Year Ended December 31, 2016  
BRADFELD/FAIRFIELD WATER OPERATIONS

Johnson Exhibit I  
Schedule 3-6(c)

| Line No. | Account No. | Item  | Plant In Service [1]<br>(a) | Depreciation Rate [2]<br>(b) | Annual Depreciation [3]<br>(c) | Composite Rate<br>(d) |
|----------|-------------|---|-----------------------------|------------------------------|--------------------------------|-----------------------|
| 1.       | 1020        | Organization                                | \$94,306                    | 2.50%                        | \$2,358                        |                       |
| 2.       | 1025        | Franchises                                  | 29,653                      | 2.50%                        | 741                            |                       |
| 3.       | 1030        | Land & land rights pump                     | 0                           | 0.00%                        | 0                              |                       |
| 4.       | 1035        | Land & land rights water tr.                | 0                           | 0.00%                        | 0                              |                       |
| 5.       | 1040        | Land & land rights trans.                   | 0                           | 0.00%                        | 0                              |                       |
| 6.       | 1045        | Land & land rights gen. plt.                | 434                         | 0.00%                        | 0                              |                       |
| 7.       | 1050        | Struct & improv. src. supply                | 126,773                     | 2.00%                        | 2,535                          |                       |
| 8.       | 1055        | Struct & improv. wtr. trt. plt.             | 51,244                      | 2.00%                        | 1,025                          |                       |
| 9.       | 1060        | Struct & improv. trans. d'ist.              | 461                         | 2.00%                        | 9                              |                       |
| 10.      | 1065        | Struct & improv. gen. plt.                  | 1,671                       | 2.00%                        | 33                             |                       |
| 11.      | 1070        | Collecting reservoirs                       | 0                           | 2.00%                        | 0                              |                       |
| 12.      | 1080        | Wells & springs                             | 475,025                     | 2.00%                        | 9,501                          |                       |
| 13.      | 1085        | Infiltration gallery                        | 0                           | 2.50%                        | 0                              |                       |
| 14.      | 1090        | Supply mains                                | 604                         | 1.00%                        | 6                              |                       |
| 15.      | 1095        | Power generation equip.                     | 0                           | 10.00%                       | 0                              |                       |
| 16.      | 1100        | Electric pump equip. src. plt.              | 36,728                      | 14.25%                       | 5,248                          |                       |
| 17.      | 1105        | Electric pump equip. wtp.                   | 289,818                     | 3.33%                        | 9,651                          |                       |
| 18.      | 1110        | Electric pump equip. trans.                 | 14,235                      | 14.25%                       | 2,034                          |                       |
| 19.      | 1115        | Water treatment equip.                      | 109,292                     | 2.50%                        | 2,732                          |                       |
| 20.      | 1120        | Dist. resv. & standpipes                    | 656,133                     | 2.00%                        | 13,123                         |                       |
| 21.      | 1125        | Trans. & distr. mains                       | 1,633,755                   | 1.00%                        | 16,338                         |                       |
| 22.      | 1130        | Service lines                               | 535,736                     | 2.00%                        | 10,715                         |                       |
| 23.      | 1135        | Meters                                      | 101,833                     | 3.33%                        | 3,391                          |                       |
| 24.      | 1140        | Meter installations                         | 123,156                     | 3.33%                        | 4,101                          |                       |
| 25.      | 1145        | Hydrants                                    | 156,759                     | 2.50%                        | 3,919                          |                       |
| 26.      | 1150        | Backflow prevention devic.                  | 98                          | 10.00%                       | 10                             |                       |
| 27.      | 1160        | Other plt. & misc. equip. src. su.          | 0                           | 2.50%                        | 0                              |                       |
| 28.      | 1165        | Other plt. & misc. equip. wtp.              | 0                           | 2.50%                        | 0                              |                       |
| 29.      | 1175        | Office struct & improv.                     | 6,790                       | 10.00%                       | 679                            |                       |
| 30.      | 1180        | Office furn. & equip.                       | 3,730                       | 10.00%                       | 373                            |                       |
| 31.      | 1185        | Store's equipment                           | 235                         | 3.33%                        | 8                              |                       |
| 32.      | 1190        | Tool shop & misc. equip.                    | 87,935                      | 5.00%                        | 4,397                          |                       |
| 33.      | 1195        | Laboratory equipment                        | 11,093                      | 10.00%                       | 1,109                          |                       |
| 34.      | 1200        | Power operated equip.                       | 1,953                       | 10.00%                       | 195                            |                       |
| 35.      | 1205        | Communication equip.                        | 17,557                      | 10.00%                       | 1,756                          |                       |
| 36.      | 1210        | Misc. equipment                             | 18                          | 3.33%                        | 1                              |                       |
| 37.      | 1215        | Water plant allocated                       | 0                           | 6.67%                        | 0                              |                       |
| 38.      | 1220        | Other tangible plt. water                   | 0                           | 2.50%                        | 0                              |                       |
| 39.      | 1555        | Transportation equip.                       | 0                           | 0.00%                        | 0                              |                       |
| 40.      | 1580        | Mainframe computer - wtr                    | 0                           | 2.50%                        | 0                              |                       |
| 41.      | 1585        | Mini computer - wtr                         | 0                           | 0.00%                        | 0                              |                       |
| 42.      | 1590        | Comp. system cost - wtr                     | 0                           | 0.00%                        | 0                              |                       |
| 43.      | 1595        | Micro system cost - wtr                     | 0                           | 0.00%                        | 0                              |                       |
| 44.      | 1835        | Plt. held for future use                    | 0                           | 0.00%                        | 0                              |                       |
| 45.      |             | Pro forma plant additions                   | 0                           | 0.00%                        | 0                              |                       |
| 46.      |             | Total plant in service (Sum of L1 thru L45) | <u>\$4,567,025</u>          |                              | <u>\$95,988</u>                | <u>2.10%</u> [4]      |

[1] Johnson Exhibit I, Schedule 2-1(c)(1), Column (d).

[2] Depreciation rates approved in Docket No. W-354, Sub 344.

[3] Column (a) multiplied by Column (b).

[4] Column (c) divided by Column (a), Line 46.

CAROLINA WATER SERVICE, INC., OF NC  
Docket No. W-354, Sub 356  
CALCULATION OF DIRECT PLANT  
DEPRECIATION EXPENSE  
For The Test Year Ended December 31, 2016  
BRADFIELD/FAIRFIELD SEWER OPERATIONS

Johnson Exhibit I  
Schedule 3-6(d)

| Line No. | Account No. | Item  | Plant In Service (a) | Depreciation Rate (b) | Annual Depreciation (c) | Composite Rate (d) |
|----------|-------------|---|----------------------|-----------------------|-------------------------|--------------------|
| 1.       | 1245        | Organization                                | \$16,883             | 2.50%                 | \$422                   |                    |
| 2.       | 1250        | Franchises intang. plt.                     | 20,351               | 2.50%                 | 509                     |                    |
| 3.       | 1270        | Land & land rights trmtnt plt               | 0                    | 0.00%                 | 0                       |                    |
| 4.       | 1275        | Land & land rights reclaim.                 | 0                    | 0.00%                 | 0                       |                    |
| 5.       | 1285        | Land & land rights gen. plt.                | 0                    | 0.00%                 | 0                       |                    |
| 6.       | 1290        | Struct/improv. coll. plt.                   | 0                    | 2.00%                 | 0                       |                    |
| 7.       | 1295        | Struct/improv. pump plt. ls.                | 617,904              | 2.00%                 | 12,358                  |                    |
| 8.       | 1300        | Struct/improv. treat. plt.                  | 1,981,888            | 2.50%                 | 49,547                  |                    |
| 9.       | 1305        | Struct/improv. reclaim. wtp.                | 0                    | 2.50%                 | 0                       |                    |
| 10.      | 1310        | Struct/improv. reclaim. wtr.                | 2,477                | 2.50%                 | 62                      |                    |
| 11.      | 1315        | Struct/improv. gen. plt.                    | 235,043              | 2.00%                 | 4,701                   |                    |
| 12.      | 1320        | Power gen. equip. coll. plt.                | 11,076               | 10.00%                | 1,108                   |                    |
| 13.      | 1325        | Power gen. equip. pump plt.                 | 0                    | 10.00%                | 0                       |                    |
| 14.      | 1330        | Power gen. equip. treat. plt.               | 0                    | 10.00%                | 0                       |                    |
| 15.      | 1345        | Sewer force main/serv. lin.                 | 176,991              | 1.33%                 | 2,354                   |                    |
| 16.      | 1350        | Sewer gravity main                          | 4,996,318            | 1.00%                 | 49,963                  |                    |
| 17.      | 1353        | Manholes                                    | 7,246                | 1.00%                 | 72                      |                    |
| 18.      | 1355        | Special coll. structures                    | 775                  | 2.00%                 | 16                      |                    |
| 19.      | 1360        | Services to customers                       | 35,453               | 1.33%                 | 472                     |                    |
| 20.      | 1365        | Flow measure devices                        | 17,011               | 4.00%                 | 680                     |                    |
| 21.      | 1370        | Flow measure install                        | 0                    | 4.00%                 | 0                       |                    |
| 22.      | 1375        | Receiving wells                             | 0                    | 2.00%                 | 0                       |                    |
| 23.      | 1380        | Pumping equipment pump plt.                 | 616,386              | 14.29%                | 88,082                  |                    |
| 24.      | 1385        | Pumping equipment reclaim.                  | 234                  | 14.29%                | 33                      |                    |
| 25.      | 1390        | Pumping equipment rcl. wtr.                 | 0                    | 14.29%                | 0                       |                    |
| 26.      | 1395        | Treat./disp. equip. lagoon                  | 55                   | 2.50%                 | 1                       |                    |
| 27.      | 1400        | Treat./disp. equip. trt. plt.               | 2,722,475            | 2.50%                 | 68,062                  |                    |
| 28.      | 1405        | Treat./disp. equip. ret. wtp.               | 0                    | 2.50%                 | 0                       |                    |
| 29.      | 1410        | Plant sewers treat. plt.                    | 361,705              | 2.50%                 | 9,043                   |                    |
| 30.      | 1415        | Plant sewers reclaim wtp.                   | 0                    | 2.50%                 | 0                       |                    |
| 31.      | 1420        | Outfall lines                               | 16,925               | 1.00%                 | 169                     |                    |
| 32.      | 1425        | Other plt. tangible                         | 0                    | 2.50%                 | 0                       |                    |
| 33.      | 1430        | Other plt. collection                       | (224)                | 2.50%                 | (6)                     |                    |
| 34.      | 1435        | Other plt. pump                             | 2,873                | 2.50%                 | 72                      |                    |
| 35.      | 1440        | Other plt. treatment                        | 0                    | 2.50%                 | 0                       |                    |
| 36.      | 1445        | Other plt. reclaim wtr. trt.                | 5,189                | 2.50%                 | 130                     |                    |
| 37.      | 1450        | Other plt. reclaim wtr. dis.                | 0                    | 2.50%                 | 0                       |                    |
| 38.      | 1455        | Office struct & improv.                     | 4,763                | 10.00%                | 476                     |                    |
| 39.      | 1460        | Office furn. & equip.                       | 448                  | 10.00%                | 45                      |                    |
| 40.      | 1465        | Stores equipment                            | 2,752                | 3.33%                 | 92                      |                    |
| 41.      | 1470        | Tool shop & misc. equip.                    | 9,759                | 5.00%                 | 488                     |                    |
| 42.      | 1475        | Laboratory equipment                        | 6,067                | 10.00%                | 607                     |                    |
| 43.      | 1480        | Power operated equip.                       | 47,069               | 10.00%                | 4,707                   |                    |
| 44.      | 1485        | Communication equip.                        | 993                  | 10.00%                | 99                      |                    |
| 45.      | 1490        | Misc equip. sewer                           | 8,603                | 3.33%                 | 286                     |                    |
| 46.      | 1495        | Sewer plant allocated                       | 0                    | 5.67%                 | 0                       |                    |
| 47.      | 1500        | Other tangible plt. sewer                   | 0                    | 2.50%                 | 0                       |                    |
| 48.      | 1535        | Reuse dist. reservoirs                      | 2,763                | 2.00%                 | 55                      |                    |
| 49.      | 1540        | Reuse transmission & dist.                  | (2,051)              | 2.00%                 | (41)                    |                    |
| 50.      | 1555        | Transportation equip.                       | 0                    | 0.00%                 | 0                       |                    |
| 51.      | 1575        | Desktop computer - wtr                      | 0                    | 0.00%                 | 0                       |                    |
| 52.      | 1580        | Mainframe computer - wtr                    | 0                    | 0.00%                 | 0                       |                    |
| 53.      | 1585        | Mini computer - wtr                         | 0                    | 0.00%                 | 0                       |                    |
| 54.      | 1590        | Comp. system cost - wtr                     | 0                    | 0.00%                 | 0                       |                    |
| 55.      | 1595        | Micro system cost - wtr                     | 0                    | 0.00%                 | 0                       |                    |
| 56.      | 1805        | Plt. held for future use                    | 0                    | 0.00%                 | 0                       |                    |
| 57.      |             | Pro forma plant additions                   | 0                    | 0.00%                 | 0                       |                    |
| 58.      |             | Total plant in service (Sum of L1 thru L57) | \$11,925,191         |                       | \$294,664               | 2.47% [4]          |

[1] Johnson Exhibit I, Schedule 2-1(d)(1), Column (d).  
[2] Depreciation rates approved in Docket No. W-354, Sub 344.  
[3] Column (a) multiplied by Column (b).  
[4] Column (c) divided by Column (a), Line 58.

## CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 356

## CALCULATION OF INCOME TAXES

For The Test Year Ended December 31, 2016

Johnson Exhibit I

Schedule 3-7(a)

## CWSNC WATER OPERATIONS

| Line<br>No. | Item  | Present<br>Rates<br>(a) | [1] | Company<br>Proposed<br>Rates<br>(b) | [3] | Public Staff<br>Recommended<br>Rates<br>(c) | [5] |
|-------------|---|-------------------------|-----|-------------------------------------|-----|---|-----|
| 1.          | Operating revenue   | \$15,202,586            |     | \$18,482,611                        |     | \$17,486,892                                |     |
|             | Operating revenue deductions:                             |                         |     |                                     |     |   |     |
| 2.          | Maintenance expenses                                      | 6,776,544               |     | 6,776,544                           |     | 6,776,544                                   |     |
| 3.          | General expenses  | 2,783,236               |     | 2,783,236                           |     | 2,783,236                                   |     |
| 4.          | Depreciation expense                                      | 2,773,404               |     | 2,773,404                           |     | 2,773,404                                   |     |
| 5.          | Amortization of CIAC                                      | (752,518)               |     | (752,518)                           |     | (752,518)                                   |     |
| 6.          | Amortization of PAA                                       | (110,344)               |     | (110,344)                           |     | (110,344)                                   |     |
| 7.          | Amortization of ITC                                       | (291)                   |     | (291)                               |     | (291)                                       |     |
| 8.          | Franchise and other taxes                                 | 71,480                  |     | 71,480                              |     | 71,480                                      |     |
| 9.          | Property taxes  | 126,424                 |     | 126,424                             |     | 126,424                                     |     |
| 10.         | Payroll taxes   | 274,498                 |     | 274,498                             |     | 274,498                                     |     |
| 11.         | Regulatory fee  | 21,284                  |     | 25,876                              |     | 24,482                                      |     |
| 12.         | Gross receipts tax  | 0                       |     | 0                                   |     | 0   |     |
| 13.         | Interest expense  | 1,476,148               | [2] | 1,476,148                           | [4] | 1,476,148                                   | [6] |
| 14.         | Total deductions (Sum of L2 thru L13)                     | 13,439,865              |     | 13,444,457                          |     | 13,443,063                                  |     |
| 15.         | Taxable income (L1 - L14)                                 | 1,762,721               |     | 5,038,154                           |     | 4,043,829                                   |     |
| 16.         | State income tax (L15 x 3%)                               | 52,882                  |     | 151,145                             |     | 121,315                                     |     |
| 17.         | Federal taxable income after state income tax (L15 - L16) | 1,709,839               |     | 4,887,009                           |     | 3,922,514                                   |     |
| 18.         | Federal income tax (L17 x 34%)                            | 581,345                 |     | 1,661,583                           |     | 1,333,655                                   |     |
| 19.         | Net amount (L15 - L16 - L18)                              | 1,128,494               |     | 3,225,426                           |     | 2,588,859                                   |     |
| 20.         | Add: Interest expense                                     | 1,476,148               | [2] | 1,476,148                           | [4] | 1,476,148                                   | [6] |
| 21.         | Net Income for a return (L19 + L20)                       | \$2,604,642             |     | \$4,701,574                         |     | \$4,065,007                                 |     |

[1] Johnson Exhibit I, Schedule 3(a), Column (c).

[2] Johnson Exhibit I, Schedule 1(a), Column (e), Line 1.

[3] Johnson Exhibit I, Schedule 3(a), Column (e).

[4] Johnson Exhibit I, Schedule 1(a), Column (e), Line 4.

[5] Johnson Exhibit I, Schedule 3(a), Column (g).

[6] Johnson Exhibit I, Schedule 1(a), Column (e), Line 7.

## CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 356

## CALCULATION OF INCOME TAXES

For The Test Year Ended December 31, 2016

Johnson Exhibit I  
Schedule 3-7(b)

## CWSNC SEWER OPERATIONS

| Line<br>No. | Item  | Present<br>Rates<br>(a) | [1] | Company<br>Proposed<br>Rates<br>(b) | [3] | Public Staff<br>Recommended<br>Rates<br>(c) | [5] |
|-------------|---|-------------------------|-----|-------------------------------------|-----|---|-----|
| 1.          | Operating revenue   | \$11,810,369            |     | \$13,344,044                        |     | \$12,678,804                                |     |
|             | Operating revenue deductions:                             |                         |     |                                     |     |   |     |
| 2.          | Maintenance expenses                                      | 5,135,884               |     | 5,135,884                           |     | 5,135,884                                   |     |
| 3.          | General expenses  | 1,661,866               |     | 1,661,866                           |     | 1,661,866                                   |     |
| 4.          | Depreciation expense                                      | 2,186,459               |     | 2,186,459                           |     | 2,186,459                                   |     |
| 5.          | Amortization of CIAC                                      | (755,272)               |     | (755,272)                           |     | (755,272)                                   |     |
| 6.          | Amortization of PAA                                       | (16,868)                |     | (16,868)                            |     | (16,868)                                    |     |
| 7.          | Amortization of ITC                                       | (228)                   |     | (228)                               |     | (228)                                       |     |
| 8.          | Franchise and other taxes                                 | 55,912                  |     | 55,912                              |     | 55,912                                      |     |
| 9.          | Property taxes  | 74,840                  |     | 74,840                              |     | 74,840                                      |     |
| 10.         | Payroll taxes   | 164,297                 |     | 164,297                             |     | 164,297                                     |     |
| 11.         | Regulatory fee  | 16,535                  |     | 18,682                              |     | 17,750                                      |     |
| 12.         | Gross receipts tax  | 0                       |     | 0                                   |     | 0   |     |
| 13.         | Interest expense  | 1,110,903               | [2] | 1,110,903                           | [4] | 1,110,903                                   | [6] |
| 14.         | Total deductions (Sum of L2 thru L13)                     | 9,634,328               |     | 9,636,475                           |     | 9,635,543                                   |     |
| 15.         | Taxable income (L1 - L14)                                 | 2,176,041               |     | 3,707,569                           |     | 3,043,261                                   |     |
| 16.         | State income tax (L15 x 3%)                               | 65,281                  |     | 111,227                             |     | 91,298                                      |     |
| 17.         | Federal taxable income after state income tax (L15 - L16) | 2,110,760               |     | 3,596,342                           |     | 2,951,963                                   |     |
| 18.         | Federal Income tax (L17 x 34%)                            | 717,658                 |     | 1,222,756                           |     | 1,003,667                                   |     |
| 19.         | Net amount (L15 - L16 - L18)                              | 1,393,102               |     | 2,373,586                           |     | 1,948,296                                   |     |
| 20.         | Add: Interest expense                                     | 1,110,903               | [2] | 1,110,903                           | [4] | 1,110,903                                   | [6] |
| 21.         | Net Income for a return (L19 + L20)                       | \$2,504,005             |     | \$3,484,489                         |     | \$3,059,199                                 |     |

[1] Johnson Exhibit I, Schedule 3(b), Column (c).

[2] Johnson Exhibit I, Schedule 1(b), Column (e), Line 1.

[3] Johnson Exhibit I, Schedule 3(b), Column (e).

[4] Johnson Exhibit I, Schedule 1(b), Column (e), Line 4.

[5] Johnson Exhibit I, Schedule 3(b), Column (g).

[6] Johnson Exhibit I, Schedule 1(b), Column (e), Line 7.

## CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 356

## CALCULATION OF INCOME TAXES

For The Test Year Ended December 31, 2016

## BRADFIELD/FAIRFIELD WATER OPERATIONS

Johnson Exhibit I  
Schedule 3-7(c)

| Line<br>No. | Item  | Present<br>Rates<br>(a) | [1] | Company<br>Proposed<br>Rates<br>(b) | [3] | Public Staff<br>Recommended<br>Rates<br>(c) | [5] |
|-------------|---|-------------------------|-----|-------------------------------------|-----|---|-----|
| 1.          | Operating revenue   | \$748,466               |     | \$1,057,760                         |     | \$979,776                                   |     |
|             | Operating revenue deductions:                             |                         |     |                                     |     |   |     |
| 2.          | Maintenance expenses                                      | 334,880                 |     | 334,880                             |     | 334,880                                     |     |
| 3.          | General expenses  | 305,402                 |     | 305,402                             |     | 305,402                                     |     |
| 4.          | Depreciation expense                                      | 130,185                 |     | 130,185                             |     | 130,185                                     |     |
| 5.          | Amortization of CIAC                                      | (43,831)                |     | (43,831)                            |     | (43,831)                                    |     |
| 6.          | Amortization of PAA                                       | 10,928                  |     | 10,928                              |     | 10,928                                      |     |
| 7.          | Amortization of JTC                                       | 0                       |     | 0                                   |     | 0   |     |
| 8.          | Franchise and other taxes                                 | 5,038                   |     | 5,038                               |     | 5,038                                       |     |
| 9.          | Property taxes  | 8,414                   |     | 8,414                               |     | 8,414                                       |     |
| 10.         | Payroll taxes   | 32,522                  |     | 32,522                              |     | 32,522                                      |     |
| 11.         | Regulatory fee  | 1,048                   |     | 1,481                               |     | 1,372                                       |     |
| 12.         | Gross receipts tax  | 0                       |     | 0                                   |     | 0   |     |
| 13.         | Interest expense  | 52,111                  | [2] | 52,111                              | [4] | 52,111                                      | [6] |
| 14.         | Total deductions (Sum of L2 thru L13)                     | 836,697                 |     | 837,130                             |     | 837,021                                     |     |
| 15.         | Taxable Income (L1 - L14)                                 | (88,231)                |     | 220,630                             |     | 142,755                                     |     |
| 16.         | State income tax (L15 x 3%)                               | 0                       |     | 6,619                               |     | 4,283                                       |     |
| 17.         | Federal taxable income after state income tax (L15 - L16) | (85,584)                |     | 214,011                             |     | 138,472                                     |     |
| 18.         | Federal income tax (L17 x 34%)                            | 0                       |     | 72,764                              |     | 47,080                                      |     |
| 19.         | Net amount (L15 - L16 - L18)                              | (56,485)                |     | 141,247                             |     | 91,392                                      |     |
| 20.         | Add: Interest expense                                     | 52,111                  | [2] | 52,111                              | [4] | 52,111                                      | [6] |
| 21.         | Net Income for a return (L19 + L20)                       | (\$4,374)               |     | \$193,358                           |     | \$143,503                                   |     |

[1] Johnson Exhibit I, Schedule 3(c), Column (c).

[2] Johnson Exhibit I, Schedule 1(c), Column (e), Line 1.

[3] Johnson Exhibit I, Schedule 3(c), Column (e).

[4] Johnson Exhibit I, Schedule 1(c), Column (e), Line 4.

[5] Johnson Exhibit I, Schedule 3(c), Column (g).

[6] Johnson Exhibit I, Schedule 1(c), Column (e), Line 7.

## CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 356

## CALCULATION OF INCOME TAXES

For The Test Year Ended December 31, 2016

## BRADFIELD/FAIRFIELD SEWER OPERATIONS

Johnson Exhibit I  
Schedule 3-7(d)

| Line<br>No. | Item  | Present<br>Rates<br>(a) | [1] | Company<br>Proposed<br>Rates<br>(b) | [3] | Public Staff<br>Recommended<br>Rates<br>(c) | [5] |
|-------------|---|-------------------------|-----|-------------------------------------|-----|---|-----|
| 1.          | Operating revenue   | \$1,371,245             |     | \$1,789,325                         |     | \$1,730,885                                 |     |
|             | Operating revenue deductions:                             |                         |     |                                     |     |   |     |
| 2.          | Maintenance expenses                                      | 528,861                 |     | 528,861                             |     | 528,861                                     |     |
| 3.          | General expenses  | 352,690                 |     | 352,690                             |     | 352,690                                     |     |
| 4.          | Depreciation expense                                      | 332,035                 |     | 332,035                             |     | 332,035                                     |     |
| 5.          | Amortization of CIAC                                      | (175,098)               |     | (175,098)                           |     | (175,098)                                   |     |
| 6.          | Amortization of PAA                                       | 40,967                  |     | 40,967                              |     | 40,967                                      |     |
| 7.          | Amortization of ITC                                       | 0                       |     | 0                                   |     | 0   |     |
| 8.          | Franchise and other taxes                                 | 9,600                   |     | 9,600                               |     | 9,600                                       |     |
| 9.          | Property taxes  | 9,715                   |     | 9,715                               |     | 9,715                                       |     |
| 10.         | Payroll taxes   | 37,964                  |     | 37,964                              |     | 37,964                                      |     |
| 11.         | Regulatory fee  | 1,920                   |     | 2,505                               |     | 2,423                                       |     |
| 12.         | Gross receipts tax  | 0                       |     | 0                                   |     | 0   |     |
| 13.         | Interest expense  | 158,239                 | [2] | 158,239                             | [4] | 158,239                                     | [6] |
| 14.         | Total deductions (Sum of L2 thru L13)                     | 1,296,893               |     | 1,297,478                           |     | 1,297,396                                   |     |
| 15.         | Taxable income (L1 - L14)                                 | 74,352                  |     | 491,847                             |     | 433,489                                     |     |
| 16.         | State income tax (L15 x 3%)                               | 2,231                   |     | 14,755                              |     | 13,005                                      |     |
| 17.         | Federal taxable income after state income tax (L15 - L16) | 72,121                  |     | 477,092                             |     | 420,484                                     |     |
| 18.         | Federal income tax (L17 x 34%)                            | 24,521                  |     | 162,211                             |     | 142,964                                     |     |
| 19.         | Net amount (L15 - L16 - L18)                              | 47,600                  |     | 314,881                             |     | 277,520                                     |     |
| 20.         | Add: Interest expense                                     | 158,239                 | [2] | 158,239                             | [4] | 158,239                                     | [6] |
| 21.         | Net income for a return (L19 + L20)                       | \$205,839               |     | \$473,120                           |     | \$435,759                                   |     |

[1] Johnson Exhibit I, Schedule 3(d), Column (c).

[2] Johnson Exhibit I, Schedule 1(d), Column (e), Line 1.

[3] Johnson Exhibit I, Schedule 3(d), Column (e).

[4] Johnson Exhibit I, Schedule 1(d), Column (e), Line 4.

[5] Johnson Exhibit I, Schedule 3(d), Column (g).

[6] Johnson Exhibit I, Schedule 1(d), Column (e), Line 7.

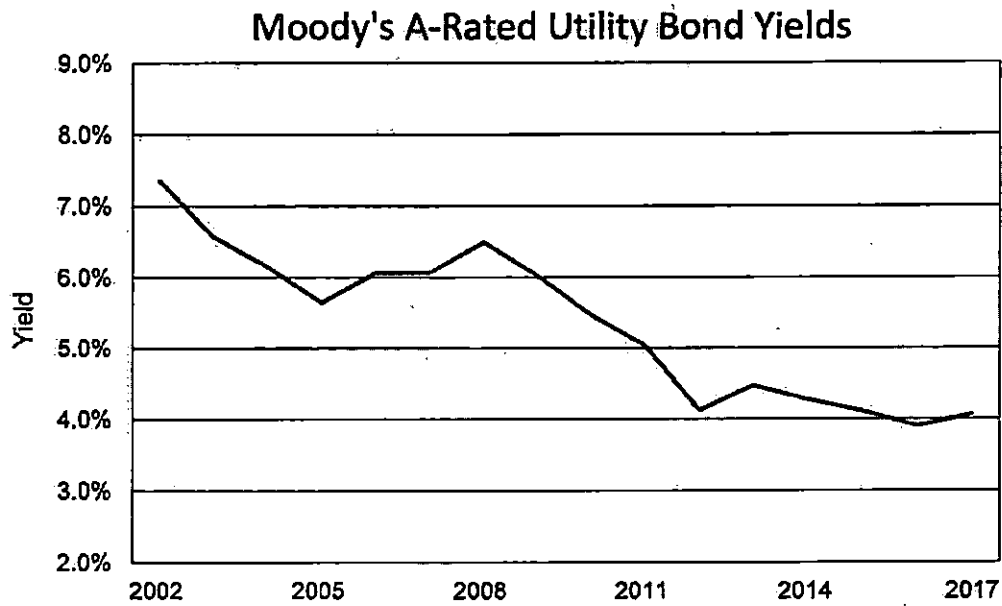


I/-

OFFICIAL COPY

Sep 19 2017

Exhibit CCC-1



Source: Moody's Credit Trends with yield data as of August, 2017.

I/-

EXHIBIT CCC-2

OFFICIAL COPY

Sep 19 2017

RISK MEASURES  
Group of Water Companies

| Company Name            | Value Line <sup>1</sup> |      |                    |                   |                 |
|-------------------------|-------------------------|------|--------------------|-------------------|-----------------|
|                         | Safety                  | Beta | Financial Strength | Earnings Predict. | Price Stability |
| 1 American States Water | 2                       | 0.75 | A                  | 90                | 80              |
| 2 American Water Works  | 3                       | 0.60 | B+                 | 95                | 100             |
| 3 Aqua America          | 2                       | 0.70 | A                  | 90                | 95              |
| 4 California Water      | 3                       | 0.75 | B++                | 70                | 85              |
| 5 Connecticut Water     | 3                       | 0.65 | B+                 | 90                | 90              |
| 6 Middlesex Water       | 2                       | 0.75 | B++                | 85                | 80              |
| 7 SJW Corp.             | 3                       | 0.70 | B+                 | 45                | 75              |
| 8 York Water            | 3                       | 0.75 | B+                 | 95                | 75              |
| Average                 | 3                       | 0.71 |                    | 83                | 85              |

Source:

<sup>1</sup> Value Line Investment Survey, July 14, 2017.

# DCF ANALYSIS

## Group of Water Utility Companies

| Company Name          | Yield <sup>1</sup> | Value Line <sup>2</sup> |       |       |      |      |      | Value Line Forecast |      |      | Yahoo <sup>3</sup> |
|-----------------------|--------------------|-------------------------|-------|-------|------|------|------|---------------------|------|------|--------------------|
|                       |                    | EPS                     | DPS   | BPS   | EPS  | DPS  | BPS  | EPS                 | DPS  | BPS  | EPS                |
|                       |                    | 10-Yr                   | 10-Yr | 10-Yr | 5-Yr | 5-Yr | 5-Yr | 5-Yr                | 5-Yr | 5-Yr | 5-Yr               |
| American States Water | 2.0                | 10.0                    | 7.0   | 5.5   | 9.0  | 10.5 | 5.0  | 6.5                 | 7.5  | 4.0  | 5.1                |
| American Water Works  | 2.1                | NA                      | NA    | 1.5   | 11.0 | 9.0  | 4.0  | 8.5                 | 10.0 | 5.5  | 7.7                |
| Aqua America          | 2.4                | 8.5                     | 8.0   | 7.0   | 11.0 | 8.0  | 7.5  | 7.0                 | 9.0  | 6.5  | 5.3                |
| California Water      | 1.9                | 4.0                     | 1.5   | 5.0   | 3.0  | 2.0  | 5.0  | 9.0                 | 6.5  | 3.0  | 9.7                |
| Connecticut Water     | 2.1                | 8.0                     | 2.5   | 6.0   | 12.0 | 3.0  | 9.0  | 4.5                 | 4.5  | 3.0  | 5.2                |
| Middlesex Water       | 2.2                | 5.0                     | 1.5   | 4.0   | 8.0  | 1.5  | 3.0  | 8.5                 | 4.5  | 4.5  | 2.7                |
| SJW Corp.             | 1.7                | 8.0                     | 4.0   | 5.5   | 20.5 | 3.0  | 6.5  | 3.0                 | 6.0  | 4.0  | 14.0               |
| York Water            | 1.8                | 5.5                     | 3.5   | 5.0   | 6.0  | 3.0  | 3.5  | 7.0                 | 7.0  | 4.5  | 4.9                |
| Average               | 2.0                | 7.0                     | 4.0   | 4.9   | 10.1 | 5.0  | 5.4  | 6.8                 | 6.9  | 4.4  | 6.8                |
| DCF Result            |                    | 9.0                     | 6.0   | 6.9   | 12.1 | 7.0  | 7.4  | 8.8                 | 8.9  | 6.4  | 8.8                |

## Sources:

<sup>1</sup> Value Line Investment Survey, Summary and Index.<sup>2</sup> Value Line Investment Survey Reports, as of July 14, 2017.<sup>3</sup> Yahoo Finance, downloaded on May 19, 2017.

--/I

1/--

# REGRESSION ANALYSIS OF ALLOWED RETURNS ON EQUITY

| Year | [A]<br>Water Utility<br>Approved<br>Returns on<br>Equity <sup>1</sup> | [B]<br>Moody's<br>A-Rated<br>Bond Yields <sup>2</sup> | [C]=[A]-[B]<br>Water Utility<br>Risk<br>Premium |
|------|---|---|---|
| 2006 | 10.23%  | 6.16%   | 4.07%   |
| 2007 | 10.07%  | 6.05%   | 4.02%   |
| 2008 | 10.24%  | 6.51%   | 3.73%   |
| 2009 | 10.18%  | 6.04%   | 4.15%   |
| 2010 | 10.18%  | 5.47%   | 4.71%   |
| 2011 | 10.04%  | 5.04%   | 5.00%   |
| 2012 | 9.90%   | 4.13%   | 5.77%   |
| 2013 | 9.73%   | 4.48%   | 5.25%   |
| 2014 | 9.60%   | 4.28%   | 5.32%   |
| 2015 | 9.78%   | 4.11%   | 5.67%   |
| 2016 | 9.68%   | 3.90%   | 5.78%   |
| 2017 | 9.43%   | 4.18%   | 5.25%   |

Source:

<sup>1</sup> SNL Energy, Regulatory Research Associates, June 8, 2017.

<sup>2</sup> Moody's Cred Trends, Various issues.

# Regression Analysis of Allowed Returns on Equity

| Regression Statistics<br>of 2006-2017 data |             |
|--|-------------|
| Regression Statistics                      |             |
| Multiple R                                 | 0.870490429 |
| R Square                                   | 0.757753587 |
| Adjusted R Square                          | 0.733528945 |
| Standard Error                             | 0.001415208 |
| Observations                               | 12          |

## ANOVA

|            | df | SS          | MS         | F        | Significance F |
|------------|----|-------------|------------|----------|----------------|
| Regression | 1  | 6.26485E-05 | 6.2649E-05 | 31.28028 | 0.000229952    |
| Residual   | 10 | 2.00281E-05 | 2.0028E-06 |          |                |
| Total      | 11 | 8.26767E-05 |            |          |                |

|              | Coefficients | Standard Error | t Stat     | P-value  |
|--------------|--------------|----------------|------------|----------|
| Intercept    | 0.086778646  | 0.002261117    | 38.3786703 | 3.44E-12 |
| X Variable 1 | 0.247358711  | 0.044227449    | 5.5928777  | 0.00023  |

|              | Moody's<br>A-Rated<br>Bond Yield |
|--------------|----------------------------------|
| June, 2017   | 3.94%                            |
| July, 2017   | 3.99%                            |
| August, 2017 | 3.86%                            |
| Average      | 3.93%                            |

|                          |       |
|--------------------------|-------|
| Predicted Cost of Equity | 9.65% |
|--------------------------|-------|

Note:

$$9.65\% = 0.08677 + 0.0393 \times 0.24735$$

I/--

EXHIBIT CCC-5

OFFICIAL COPY

Sep 19 2017

CAROLINA WATER SERVICE, INC. OF NC  
COST OF CAPITAL

| Item           | Amount        | Ratios  | Cost Rate | Weighted<br>Cost Rate | Pre-Tax<br>Cost of<br>Capital |
|----------------|---------------|---------|-----------|-----------------------|-------------------------------|
| Long-Term Debt | \$61,185,874  | 48.00%  | 5.93%     | 2.85%                 | 2.85%                         |
| Common Equity  | \$66,284,697  | 52.00%  | 9.60%     | 4.99%                 | 8.05%                         |
| Total          | \$127,470,571 | 100.00% |           | 7.84%                 | 9.92%                         |

Pre-Tax Interest Coverage 3.7

| One<br>Dollar Tax               |         |
|---------------------------------|---------|
| Costs per Retention<br>per year | Factors |
| 6                               | 1.0000  |
| 15                              | 0.6200  |

--/A

STATE OF NORTH CAROLINA  
UTILITIES COMMISSION  
RALEIGH

**FILED**

DOCKET NO. W-354, SUB 356

**SEP 19 2017**

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

Clerk's Office  
N.C. Utilities Commission

In the Matter of

Application by Carolina Water Service, Inc. of North )  
Carolina, 4944 Parkway Plaza Boulevard, Suite 375, )  
Charlotte, North Carolina 28217, for Authority to )  
Adjust and Increase Rates for Water and Sewer )  
Utility Service in All of its Service Areas in North )  
Carolina, Except Corolla Light and Monteray Shores )  
Service Area and Elk River Development )

**JOINT STIPULATION**

Carolina Water Service, Inc. of North Carolina ("CWSNC" or "Company")  
and the Public Staff - North Carolina Utilities Commission ("Public Staff"),  
(collectively, the "Stipulating Parties"), through counsel and pursuant to  
Section 62-69 of the North Carolina General Statutes and Rule R1-24(c) of the  
Rules and Regulations of the North Carolina Utilities Commission ("Commission"  
or "NCUC"), respectfully submit the following Joint Stipulation for consideration by  
the Commission in this proceeding. The Stipulating Parties hereby stipulate and  
agree as follows:

**1. Background.**

A. On April 22, 2016, CWSNC, Bradfield Farms Water Company  
(Bradfield Farms), Carolina Trace Utilities, Inc. (Carolina Trace), CWS Systems,  
Inc. (CWSS), Elk River Utilities, Inc. (Elk River), and Transylvania Utilities, Inc.  
(Transylvania) filed a Joint Application for Approval of Merger with the Commission  
in Docket No. W-354, Sub 350 requesting approval of the merger of



Bradfield Farms, Carolina Trace, CWSS, Elk River, and Transylvania (all of which, like CWSNC, were wholly-owned subsidiaries of Utilities, Inc. ("UI")) into CWSNC. On August 17, 2016, the Commission entered an *Order Approving Merger*. The Articles of Merger were filed with the North Carolina Secretary of State on August 30, 2016. Since that date, CWSNC has owned and operated all of the merged water and sewer systems previously owned and operated by the five former UI subsidiaries.

B. On February 24, 2017, CWSNC filed a 30-day advance written notice in this docket stating the Company's intent to file a general rate case application with the Commission. This notice was filed pursuant to Commission Rule R1-17(a).

C. On March 31, 2017, CWSNC filed an application in this proceeding (1) seeking authority to increase and adjust its rates for water and sewer utility service in all of its service areas in North Carolina, except for the Corolla Light/Monteray Shores and Elk River service areas; (2) requesting authority for a pass-through of any increases in purchased bulk water rates, subject to sufficient proof by CWSNC of the increase, as well as a pass-through of any increased costs of wastewater treatment performed by third parties and billed to CWSNC; and (3) to increase certain charges.

D. This is the first general rate case filed by CWSNC since the merger was approved by the Commission on August 17, 2016. By its Application, CWSNC proposes to establish four Rate Divisions for ratemaking purposes in this proceeding as follows:

CWSNC Uniform Water

CWSNC Uniform Sewer

Bradfield Farms/Fairfield Harbour Water

Bradfield Farms/Fairfield Harbour Sewer

E. As proposed in the Application, the CWSNC Uniform Water and Sewer Rate Divisions will consist of all water and sewer systems currently owned and operated by the Company, except the Bradfield Farms and Fairfield Harbour service areas. The Bradfield Farms and Fairfield Harbour water and sewer service areas have been combined into separate Water and Sewer Rate Divisions for purposes of this case with uniform water and sewer rates within each Rate Division. CWSNC's stated goal, in future general rate cases, is to move Bradfield Farms and Fairfield Harbour into the CWSNC Uniform Water and Sewer Rate Divisions.

F. As a matter of rate design in this case, CWSNC proposed no rate changes for customers in the Company's Elk River and Corolla Light/Monteray Shores service areas. Customers in the Elk River service area were impacted by a recent rate increase effective September 20, 2016, and, for that reason, the Company is reluctant, at this time, to further increase rates for those particular customers by applying CWSNC's uniform water and sewer rates to them. CWSNC will reevaluate this course of action in the Company's next general rate case. As for the Corolla Light/Monteray Shores service area, CWSNC's proposal to not increase (but hold constant) the water and sewer rates for those affected customers is consistent with the ratemaking and rate design approved by the

Commission in the Company's last two general rate cases (Docket Nos. W-354, Subs 336 and 344) and will continue the orderly process of moving the Corolla Light/Monteray Shores service area toward full inclusion in the Company's uniform water and sewer rates in future general rate cases.

G. On April 26, 2017, the Commission issued its *Order Establishing General Rate Case and Suspending Rates*.

H. On May 23, 2017, the Corolla Light Community Association, Inc. ("CLCA") filed a petition to intervene in this proceeding, stating that it is the homeowners association for the Corolla Light development; that its membership includes more than 450 residents in the development; that its members are provided wastewater treatment services by CWSNC; and that the Community Association and its members have an interest in the subject matter of these proceedings. The CLCA petition to intervene was granted by Commission Order dated June 16, 2017.

I. On June 2, 2017, the Commission issued its *Order Scheduling Hearings and Requiring Customer Notice*.

J. On June 19, 2017, CWSNC filed the Commission-required Certificate of Service indicating that the Notices to Customers were served in conformity with the *Order Scheduling Hearings and Requiring Customer Notice*.

K. On July 13, 2017, Mr. William R. Colyer, in his capacity as Secretary of the Board of Directors of the Bradfield Farms Homeowners Association, filed a petition to intervene in this proceeding. On August 10, 2017, the Commission

entered an *Order Denying Petition to Intervene Without Prejudice* which denied the petition because it had not been signed or verified by a licensed attorney as required by Commission Rule R1-5(d) and G.S. 84-2.1 *et. seq.*

L. On July 21, 2017 CWSNC filed a Notice Regarding Semiannual WSIC/SSIC Surcharge Applications pursuant to G.S. 62-133.12 and Commission Rules R7-39 and R10-26. The purpose of this filing was to notify the Commission, the Public Staff, and other interested parties that CWSNC did not intend to file applications for semiannual adjustments of the Company's Commission-authorized WSIC/SSIC surcharge mechanisms on August 1, 2017, to become effective on October 1, 2017.

M. On August 7, 2017, CWSNC filed the direct testimony and exhibit of Company witness Richard Linneman.

N. On August 7, 2017, the Public Staff and CWSNC filed a Stipulation regarding cost of capital and capital structure issues.

O. On August 29, 2017, CWSNC filed a report regarding customer concerns raised at the public hearings held in Asheville and Boone on July 25, 2017, and July 26, 2017, respectively.

P. On September 11, 2017, CWSNC filed a report regarding customer concerns raised at the public hearings held in Charlotte and New Bern on August 1, 2017 and August 22, 2017, respectively.

Q. On September 18, 2017, CWSNC filed a report regarding customer concerns raised at the public hearings held in Wilmington and Raleigh on August 23, 2017 and August 29, 2017, respectively.

R. On August 30, 2017, the Public Staff filed a motion to extend the due date for the filing of Public Staff and Intervenor testimony in this docket to September 12, 2017, and for the filing of rebuttal testimony to September 15, 2017. The motion was granted by Commission Order dated September 1, 2017.

S. Subsequent to the filing of the Company's Application in this docket, the Public Staff engaged in substantial discovery of CWSNC regarding the matters addressed by the Company's Application and further examined the relevant books and records of CWSNC with respect to the Company's Application. The Public Staff's discovery efforts spanned a period of 15 weeks and entailed 54 sets of data requests directed to the Company and numerous informal follow-up questions. The Public Staff also conducted field inspections of the water systems at Ski Mountain, Crestview, Misty Mountain, Chapel Hill, Powder Horn Mountain, Fairfield Harbor, Belvedere Plantation, Olde Point, Treasure Cove, Bradfield Farms, Wildlife Bay, Zemosa Acres, and Kings Grant and the sewer systems at Fairfield Harbor, Belvedere Plantation, Bradfield Farms, Danby, Independent/Hemby and Kings Grant; followed up on written customer protests and concerns raised at the public hearings and through e-mails and letters; and reviewed North Carolina Department of Environment and Natural Resources ("DENR") records.

T. Following completion of the Public Staff's investigation of the Company's Application and accompanying documents, review of the results of its examination of the Company's books and records, and review of the Company's responses to the Public Staff's data requests, CWSNC and the Public Staff met and participated in meetings and conference calls over the course of several business days to discuss possible settlement.

U. On September 12, 2017, the Public Staff filed a second motion to extend the due date for the filing of Public Staff and Intervenor testimony and a stipulation and settlement agreement in this docket to September 19, 2017. The motion was granted by Commission Order dated September 14, 2017.

V. After significant negotiations, in which substantial concessions from their litigation positions were made by CWSNC and the Public Staff, the Stipulating Parties were ultimately able to arrive at a settlement, the terms of which are reflected in the following sections of this Joint Stipulation and the schedules and exhibits attached hereto. The Joint Stipulation involved substantial adjustments to the Company's filed case, as shown on the revenue reconciliation attached hereto as Exhibit B, and resulted in an agreement to increase the Company's combined water and wastewater revenues by approximately 12.85% percent of the Company's total operating revenues or roughly 67.56% percent of the combined rate increase requested in the Application.

W. On September 19, 2017, the Public Staff pre-filed the testimony and exhibits of Public Staff witnesses Sonja Johnson, Gina Y. Casselberry, Lindsay

Quant and Calvin C. Craig, III. CWSNC has reviewed the Public Staff's pre-filed testimony and exhibits and accepts the Public Staff's recommended revenue requirements, rate design, and other recommendations.

X. The Stipulating Parties agree that the levels of rate base, revenues and expenses set forth in Johnson Exhibit I, which are incorporated by reference herein, are the appropriate levels for use in this proceeding.

2. **Test Period.** The test period for this rate case is the twelve months ended December 31, 2016, adjusted for certain changes in plant, revenues, and costs that were not known at the time the case was filed but are based upon circumstances occurring or becoming known through July 31, 2017. In addition, several major construction projects completed and placed in service by the date of this Joint Stipulation, have been included in rate base.

3. **Rate Base.** The original cost rate base used and useful in providing service to the Company's customers is \$51,860,184 for CWSNC Uniform Water operations, \$39,028,369 for CWSNC Uniform Sewer operations, \$1,830,765 for Bradfield Farms/Fairfield Harbour Water operations, and \$5,559,273 for Bradfield Farms/Fairfield Harbour Sewer operations, for a total rate base for combined operations of \$98,278,591, as shown on Exhibit A attached hereto and incorporated herein by reference.

4. **Revenue Requirement.**

A. The appropriate present level of operating revenues under present rates for use in this proceeding is \$15,202,586 for CWSNC Uniform Water

operations, \$11,810,369 for CWSNC Uniform Sewer operations, \$748,466 for Bradfield Farms/Fairfield Harbour Water operations, and \$1,371,245 for Bradfield Farms/Fairfield Harbour Sewer operations, for a total level of operating revenues for combined operations of \$29,132,666, as shown on Exhibit A.

B. The overall level of operating expenses under the present rates appropriate for use in this proceeding is \$12,597,944 for CWSNC Uniform Water operations, \$9,306,364 for CWSNC Uniform Sewer operations, \$752,840 for Bradfield Farms/Fairfield Harbour Water operations, and \$1,165,406 for Bradfield Farms/Fairfield Harbour Sewer operations, for a total level of operating revenues under present rates for combined operations of \$23,822,555, as shown on Exhibit A.

C. As agreed to in the Stipulation between CWSNC and the Public Staff regarding cost of capital and capital structure issues, dated August 7, 2017, the capital structure appropriate for use in this proceeding is a capital structure consisting of 52% common equity and 48% long-term debt at a cost of 5.93% as shown on Exhibit C.

D. As agreed to in the Stipulation dated August 7, 2017, between CWSNC and the Public Staff, the rate of return on common equity (ROE) that the Company should be allowed an opportunity to earn is 9.60%, as shown on Exhibit C. This agreed level of ROE represents a significant compromise by the Stipulating Parties from their respective litigation positions. For purposes of this proceeding, this agreed ROE is deemed by each Stipulating Party to be a



reasonable rate of return on common equity that will provide the Company with a reasonable opportunity, by sound management to: produce a fair return for its shareholders, considering changing economic conditions and other factors; maintain its facilities and services in accordance with the reasonable requirements of its customers in the territory covered by its franchises; and compete in the market for capital funds on terms that are fair to its customers and to its existing investors. The Stipulating Parties further agree that such agreed rate of return on common equity, together with the agreed capital structure and adjustments to the Company's rate base and operating expenses, results in a revenue requirement that is just and reasonable to the Company's customers in light of changing economic conditions.

E. The overall rate of return that the Company should be allowed an opportunity to earn on its rate base is 7.84%, as shown on Exhibit A.

F. The Company should be authorized to increase its annual level of operating revenues through the rates and charges approved in this case by \$3,743,691, consisting of an increase for CWSNC Uniform Water operations of \$2,284,306, an increase for CWSNC Uniform Sewer operations of \$868,435, an increase for Bradfield Farms/Fairfield Harbour Water operations of \$231,310, an increase for Bradfield Farms/Fairfield Harbor Sewer operations of \$359,640, and no change in revenues for the Corolla Light/Monteray Shores service area and Elk River Development. After giving effect to these increases, the annual operating revenues for the Company would be \$32,876,357, consisting of \$17,486,892 for CWSNC Uniform Water operations, \$12,678,804 for CWSNC Uniform Sewer

operations, \$979,776 for Bradfield Farms/Fairfield Mountain Water operations, and \$1,730,885 for Bradfield Farms/Fairfield Harbour Sewer operations, as shown on Exhibit A.

G. The Company should be allowed to increase its new sewer customer charge from \$21.95 to \$27.00; increase the return check fee from \$24.94 to \$25.00; increase the meter testing fee from \$19.95 to \$20.00; new water customer charge from \$26.93 to \$27.00; the reconnection charge from \$26.93 to \$27.00; and the charge for processing NFS checks from \$24.94 to \$25.00. These charges were not increased or changed for Corolla Light/Monteray Shores and Elk River Development customers.

**5. Rate Design.** The Stipulating Parties agree that it is reasonable and appropriate to adopt the four Rate Divisions proposed by CWSNC for purposes of designing rates in this proceeding. The Stipulating Parties agree to the changes in rates set forth in Exhibits D and E. Exhibit F shows the calculation of the average monthly residential bills.

As an additional matter of rate design in this case, CWSNC proposed no rate changes for customers in the Company's Elk River and Corolla Light/Monteray Shores service areas. The Stipulating Parties agree that it is reasonable and appropriate for purposes of this case to hold rates constant and unchanged for customers in those service areas.

Customers in the Elk River service area were impacted by a recent rate increase effective September 20, 2016, and, for that reason, the Company is

reluctant, at this time, to further increase rates for those particular customers by applying CWSNC's uniform water and sewer rates to them. Accordingly, the Stipulating Parties recommend that the current system-specific rates for the Elk River service area should remain unchanged from those previously established and currently in effect from the 2016 rate case. This course of action will be reevaluated by CWSNC and the Public Staff in the Company's next general rate case.

As for the Corolla Light/Monteray Shores service area, CWSNC's proposal to not increase (but hold constant) the water and sewer rates for those affected customers is consistent with the ratemaking and rate design approved by the Commission in the Company's last two general rate cases (Docket Nos. W-354, Subs 336 and 344) and will continue the orderly process of moving the Corolla Light/Monteray Shores service area toward full inclusion in the Company's uniform water and sewer rates in future general rate cases. Therefore, as a further step in the process, the Stipulating Parties recommend that in this proceeding the current system-specific sewer rates for CLMS should remain unchanged from those previously established.

**6. Belvedere Pump and Haul Costs.** The Stipulating Parties agree that CWSNC's pump and haul expenses and the new spray charges are not a part of Belvedere's system modification project, but are a result of an extraordinary expense and should continue to be amortized for a 10-year amortization period with no unamortized balance included in rate base. For the Belvedere pump and haul costs, only invoiced costs should be included, and not capitalized time or

interest during construction. The Stipulating Parties agree there will not be any additional pump and haul expenses added to the current deferred balance in future proceedings before the Commission.

**7. Regulatory Fee Adjustment.** The Stipulating Parties agree that the revenue requirement set forth herein reflects the statutory regulatory fee rate of 0.14%, applied to total operating revenues at present rates, Company proposed rates, and Public Staff recommended rates.

**8. State Income Tax.** The state corporate income tax rate is currently 3%, effective for taxable years beginning on or after January 1, 2017. The Stipulating Parties agree that it is reasonable and appropriate to calculate state income taxes based on the statutory corporate rate of 3%, which became effective January 1, 2017.

**9. Gain on Sale Unamortized Balance.** The Stipulating Parties agree that the unamortized balance of the gain on sale of systems sold to the Charlotte-Mecklenburg Utility Department ("CMUD") as of December 31, 2017, should be amortized over an additional three-year period.

**10. Rate Case Expense.** The Stipulating Parties agree that, for purposes of this rate case, it is appropriate to use rate case costs of \$710,275, consisting of \$424,336 related to the current proceeding and \$285,939 of unamortized rate case expense from prior proceedings, to be amortized and collected over a three-year period, for an annual level of rate case expense of \$236,758.

11. **WSIC and SSIC Mechanism.** Pursuant to G.S. 62-133.12 and Commission Rules R7-39 and R10-26, the Commission found it to be in the public interest to authorize CWSNC, as part of the Company's 2014 and 2015 general rate cases in Docket Nos. W-354, Subs 336 and 344, to implement Water and Sewer System Improvement Charge ("WSIC/SSIC") Mechanisms applicable to all of the Company's pre-merger customers. CWS Systems and Elk River were also authorized by the Commission to implement WSIC/SSIC Mechanisms in their last pre-merger general rate cases in Docket Nos. W-778, Sub 91 and W-1058, Sub 7, respectively. Bradfield Farms, Carolina Trace, and Transylvania did not have pre-merger general rate cases by which those companies were authorized to implement WSIC/SSIC Mechanisms; thus, to date, the WSIC/SSIC Mechanisms are not authorized and in effect for the Bradfield Farms, Carolina Trace, and Transylvania post-merger CWSNC service territories.

By these statutorily and Commission-authorized Mechanisms, the Company is allowed to recover the annual incremental depreciation expense and capital costs of eligible water and sewer system improvements completed and placed in service between rate cases.

Consistent with NCUC Rules R7-39(k) and R10-26(k), CWSNC's Commission-authorized WSIC and SSIC surcharges will be reset to zero as of the effective date of new base rates established in this general rate case. Thereafter, only the incremental depreciation expense and capital costs of new eligible water and sewer system improvements that have not previously been reflected in the

Company's rates will be recoverable through the WSIC/SSIC Mechanisms on a going-forward basis.

All of CWSNC's post-merger customers are subject to the Application in this general rate case. Therefore, the Stipulating Parties acknowledge and agree that CWSNC's Commission-authorized WSIC/SSIC rate adjustment mechanism will, on a going-forward basis, now apply to all of the Company's customers and all current service areas, including those customers incorporated into the Company as a result of the Commission-authorized 2016 corporate merger.

The Stipulating Parties further agree that the On-Going Three-Year WSIC/SSIC Plan filed by CWSNC in this docket as Appendix C to the Rate Case Application on March 31, 2017, is reasonable and meets the requirements of Commission Rules R7-39(m) and R10-39(m).

**12. Pro Forma Project No. 2017022 – RedZone Investigation – BU No. 187101 Carolina Trace Sewer.** The Stipulating Parties have agreed to exclude this project from cost recovery in this rate case proceeding in view of the position taken by the Public Staff that this is not yet a completed project, but is the initial step in identifying sewer mains for a sewer main replacement project for the Company's Carolina Trace service area. While CWSNC does not, for purposes of this Stipulation, agree with the Public Staff's position as to whether this project is complete, the Company, for settlement purposes only and without setting a precedent, accepts this ratemaking adjustment, subject to with following agreement with the Public Staff. The Stipulating Parties agree that CWSNC will

be entitled to recover the reasonable and prudent capitalized cost of this project (as determined by the Commission) in the Company's next general rate case (or in a WSIC/SSIC proceeding if a replacement cost project or projects are submitted by CWSNC for WSIC/SSIC cost recovery).

**13. CIAC Amortization Expense and CIAC Accumulated Amortization.**

Based on the Company's Rate Case Application, there is a difference of opinion between CWSNC and the Public Staff when it comes to the calculation methodology used for these two items. While CWSNC does not, for purposes of this Joint Stipulation, agree with the Public Staff's position on this issue, the Company, for settlement purposes only and without setting a precedent, accepts this ratemaking adjustment in this case, but reserves the right to request and advocate for a change in methodology in a future general rate case. The Public Staff, while defending its position in this case, does not dispute or oppose the Company's right to seek a change in methodology in a subsequent rate case.

**14. Base Facility Charge.** The Stipulating Parties agree that for purposes of this rate case, in recognition of the significant impact the Company's proposed base facility charge would have on a relatively small number of residential customers in this case, the Company agrees that all residential sewer customers should pay the same base facility charge regardless of meter size.

**15. Metered Sewer Rates.** The Company agrees to consider implementing metered sewer rates for customers in its Fairfield Harbour, Bradfield Farms, and Sapphire Valley service areas in the Company's next general rate case filing and

reserves the right to independently propose metered sewer rates for these systems.

**16. Agreement to Support Settlement; Non-Waiver.** The Stipulating Parties will support this Joint Stipulation in any proposed order or brief and in any hearing before the Commission in this docket; provided, however, that the settlement of any issue pursuant to this Joint Stipulation shall not be cited as precedent by the Stipulating Parties in any other proceeding or docket before this Commission. The provisions of this Joint Stipulation do not necessarily reflect any position asserted by the Stipulating Parties. Rather, the provisions of this Joint Stipulation reflect a settlement among the Stipulating Parties as to all issues, and no Stipulating Party waives the right to assert any position in any future docket before the Commission.

**17. Final Order and Waiver of Right to File Exceptions and Appeal.** The Stipulating Parties agree that any Order approving rates and charges agreed to in this Joint Stipulation may become the Final Order of the Commission upon issuance and waive the right to file exceptions and appeal the Final Order of the Commission incorporating the matters stipulated herein.

**18. Introduction/Withdrawal of Testimony and Waiver of Cross-Examination.** The Stipulating Parties agree that all Company pre-filed testimony and exhibits, as well as the testimony and exhibits filed by the Public Staff in support of this Joint Stipulation, may be introduced into evidence without objection, and the Stipulating Parties waive their respective right to cross-examine all witnesses with respect to all such pre-filed testimony and exhibits. If questions



should be asked by any person, including a Commissioner, who is not a Stipulating Party, the Stipulating Parties may present testimony and/or exhibits to respond to such questions and may cross-examine any witnesses with respect to such testimony and/or exhibits; provided, however, that such testimony, exhibits, and/or cross-examination shall not be inconsistent with this Joint Stipulation. The Stipulating Parties further agree that the Public Staff will file testimony in support of this Joint Stipulation provided that such testimony shall not be inconsistent with this Joint Stipulation.

**19. Binding Only if Entire Stipulation Accepted.** This Joint Stipulation is the product of give-and-take negotiations, and no portion of this Joint Stipulation shall be binding on the Stipulating Parties unless the entire Joint Stipulation is accepted by the Commission. The terms and conditions set forth above represent, in full, the agreement of the Stipulating Parties:

The foregoing is agreed and stipulated to this the 19<sup>th</sup> day of September, 2017.

**Carolina Water Service, Inc. of North Carolina**

By: Electronically Submitted  
/s/ Jo Anne Sanford  
Sanford Law Office, PLLC  
Post Office Box 28085  
Raleigh, North Carolina 27611-8085  
(919) 210-4900  
sanford@sanfordlawoffice.com

Electronically Submitted

/s/ Robert H. Bennink, Jr.

Bennink Law Office

North Carolina State Bar No. 6502

130 Murphy Drive

Cary, North Carolina 27513

(919) 760-3185

BenninkLawOffice@aol.com

**Public Staff – North Carolina Utilities Commission**

By: Electronically Submitted

/s/ Gina C. Holt

Staff Attorney

4326 Mail Service Center

Raleigh, North Carolina 27699-4326

(919) 733-6110

gina.holt@psncuc.nc.gov

Electronically Submitted

/s/ William E. Grantmyre

Staff Attorney

4326 Mail Service Center

Raleigh, North Carolina 27699-4326

(919) 733-6110

william.grantmyre@psncuc.nc.gov

## SCHEDULE OF EXHIBITS

- Exhibit A - Net Operating Income, Rate Base and Overall Return
- Exhibit B - Revenue Impact of Stipulated Adjustments
- Exhibit C - Calculation of Gross Revenue Effect Factors
- Exhibit D - Rate Comparisons – CWSNC Uniform
- Exhibit E - Rate Comparisons -- Fairfield Harbour and Bradfield Farms
- Exhibit F - Calculation of Average Monthly Residential Bills

CAROLINA WATER SERVICE, INC., OF NC  
Docket No. W-354, Sub 356  
STATEMENT OF OPERATING INCOME FOR RETURN, RATE BASE AND OVERALL RETURN  
For The Test Year Ended December 31, 2016  
COMBINED OPERATIONS

| Line No.                                 | Item   | Amount Per Application (a) | Settlement Adjustments (b) | After Settlement Adjustments (c) | Rate Increase (d)  | After Rate Increase (e) |
|--|--|----------------------------|----------------------------|----------------------------------|--------------------|-------------------------|
| <b>NET OPERATING INCOME FOR A RETURN</b> |  |                            |                            |                                  |                    |                         |
| <b>Operating Revenues:</b>               |  |                            |                            |                                  |                    |                         |
| 1.                                       | Service revenues                               | \$28,968,056               | (\$1,211)                  | \$28,966,845                     | \$3,759,480        | \$32,726,325            |
| 2.                                       | Miscellaneous revenues                         | 267,700                    | 87,689                     | 355,389                          | 10,568             | 365,957                 |
| 3.                                       | Uncollectible accounts                         | (192,129)                  | 2,561                      | (189,568)                        | (26,357)           | (215,925)               |
| 4.                                       | Total operating revenues                       | <u>29,043,627</u>          | <u>89,039</u>              | <u>29,132,666</u>                | <u>3,743,691</u>   | <u>32,876,357</u>       |
| <b>Operating Expenses:</b>               |  |                            |                            |                                  |                    |                         |
| 5.                                       | Maintenance expenses                           | 12,618,434                 | 157,736                    | 12,776,170                       | 0                  | 12,776,170              |
| 6.                                       | General expenses                               | 5,788,996                  | (685,802)                  | 5,103,194                        | 0                  | 5,103,194               |
| 7.                                       | Depreciation expense                           | 5,170,174                  | 251,909                    | 5,422,083                        | 0                  | 5,422,083               |
| 8.                                       | Amortization of CIAC                           | (1,316,240)                | (410,479)                  | (1,726,719)                      | 0                  | (1,726,719)             |
| 9.                                       | Amortization of PAA                            | (84,776)                   | 9,459                      | (75,317)                         | 0                  | (75,317)                |
| 10.                                      | Amortization of ITC                            | (519)                      | 0                          | (519)                            | 0                  | (519)                   |
| 11.                                      | Franchise and other taxes                      | 142,030                    | 0                          | 142,030                          | 0                  | 142,030                 |
| 12.                                      | Property taxes                                 | 219,393                    | 0                          | 219,393                          | 0                  | 219,393                 |
| 13.                                      | Payroll taxes                                  | 509,444                    | (163)                      | 509,281                          | 0                  | 509,281                 |
| 14.                                      | Regulatory fee                                 | 0                          | 40,787                     | 40,787                           | 5,240              | 46,027                  |
| 15.                                      | Gross receipts tax                             | (9,640)                    | 9,640                      | 0                                | 0                  | 0                       |
| 16.                                      | State income tax                               | 0                          | 117,747                    | 117,747                          | 112,154            | 229,901                 |
| 17.                                      | Federal income tax                             | 0                          | 1,294,425                  | 1,294,425                        | 1,232,941          | 2,527,366               |
| 18.                                      | Total operating expenses                       | <u>23,037,296</u>          | <u>785,259</u>             | <u>23,822,555</u>                | <u>1,350,395</u>   | <u>25,172,950</u>       |
| 19.                                      | Net operating income for a return              | <u>\$6,006,331</u>         | <u>(\$696,220)</u>         | <u>\$5,310,111</u>               | <u>\$2,393,356</u> | <u>\$7,703,467</u>      |
| <b>RATE BASE</b>                         |  |                            |                            |                                  |                    |                         |
| 20.                                      | Plant in service                               | \$193,003,812              | \$8,929,277                | \$201,933,089                    | \$0                | \$201,933,089           |
| 21.                                      | Accumulated depreciation                       | (49,936,546)               | (686,163)                  | (50,622,709)                     | 0                  | (50,622,709)            |
| 22.                                      | Net plant in service                           | 143,067,266                | 8,243,114                  | 151,310,380                      | 0                  | 151,310,380             |
| 23.                                      | Cash working capital                           | 2,057,044                  | (56,639)                   | 2,000,405                        | 0                  | 2,000,405               |
| 24.                                      | Contributions in aid of construction           | (43,999,837)               | 965,006                    | (43,034,831)                     | 0                  | (43,034,831)            |
| 25.                                      | Advances in aid of construction                | (32,940)                   | 0                          | (32,940)                         | 0                  | (32,940)                |
| 26.                                      | Accumulated deferred income taxes              | (10,150,959)               | (560,691)                  | (10,711,650)                     | 0                  | (10,711,650)            |
| 27.                                      | Customer deposits                              | (302,471)                  | (48,665)                   | (351,136)                        | 0                  | (351,136)               |
| 28.                                      | Gain on sale and flow back taxes               | (775,797)                  | 255,440                    | (520,357)                        | 0                  | (520,357)               |
| 29.                                      | Plant acquisition adjustment                   | (1,101,962)                | 57,723                     | (1,044,239)                      | 0                  | (1,044,239)             |
| 30.                                      | Excess book value                              | (527,641)                  | 363,059                    | (164,582)                        | 0                  | (164,582)               |
| 31.                                      | Cost-free capital                              | 0                          | (261,499)                  | (261,499)                        | 0                  | (261,499)               |
| 32.                                      | Average tax accruals                           | 104,218                    | (222,073)                  | (117,855)                        | 0                  | (117,855)               |
| 33.                                      | Regulatory liability for excess deferred taxes | (369,944)                  | 0                          | (369,944)                        | 0                  | (369,944)               |
| 34.                                      | Deferred charges                               | 2,256,740                  | (679,901)                  | 1,576,839                        | 0                  | 1,576,839               |
| 35.                                      | Pro forma plant                                | <u>8,966,599</u>           | <u>(8,966,599)</u>         | <u>0</u>                         | <u>0</u>           | <u>0</u>                |
| 36.                                      | Original cost rate base                        | <u>\$90,223,717</u>        | <u>\$8,054,874</u>         | <u>\$98,278,591</u>              | <u>\$0</u>         | <u>\$98,278,591</u>     |
| 37.                                      | Overall Rate of Return on Rate Base            | 6.66%                      |                            | 5.40%                            |                    | 7.84%                   |

CAROLINA WATER SERVICE, INC., OF NC  
Docket No. W-354, Sub 356  
STATEMENT OF OPERATING INCOME FOR RETURN, RATE BASE AND OVERALL RETURN  
For The Test Year Ended December 31, 2016  
CWSNC WATER OPERATIONS

| Line No.                                 | Item   | Amount Per Application<br>(a) | Settlement Adjustments<br>(b) | After Settlement Adjustments<br>(c) | Rate Increase<br>(d) | After Rate Increase<br>(e) |
|--|--|-------------------------------|-------------------------------|-------------------------------------|----------------------|----------------------------|
| <b>NET OPERATING INCOME FOR A RETURN</b> |  |                               |                               |                                     |                      |                            |
| Operating Revenues:                      |  |                               |                               |                                     |                      |                            |
| 1.                                       | Service revenues                               | \$15,118,194                  | \$4,735                       | \$15,122,929                        | \$2,292,099          | \$17,415,028               |
| 2.                                       | Miscellaneous revenues                         | 136,591                       | 35,316                        | 171,907                             | 6,189                | 178,096                    |
| 3.                                       | Uncollectible accounts                         | (93,886)                      | 1,736                         | (92,250)                            | (13,982)             | (106,232)                  |
| 4.                                       | Total operating revenues                       | <u>15,160,799</u>             | <u>41,787</u>                 | <u>15,202,586</u>                   | <u>2,284,306</u>     | <u>17,486,892</u>          |
| Operating Expenses:                      |  |                               |                               |                                     |                      |                            |
| 5.                                       | Maintenance expenses                           | 7,009,278                     | (232,734)                     | 6,776,544                           | 0                    | 6,776,544                  |
| 6.                                       | General expenses                               | 2,983,217                     | (199,981)                     | 2,783,236                           | 0                    | 2,783,236                  |
| 7.                                       | Depreciation expense                           | 2,624,984                     | 148,420                       | 2,773,404                           | 0                    | 2,773,404                  |
| 8.                                       | Amortization of CIAC                           | (516,503)                     | (236,015)                     | (752,518)                           | 0                    | (752,518)                  |
| 9.                                       | Amortization of PAA                            | (79,539)                      | (30,805)                      | (110,344)                           | 0                    | (110,344)                  |
| 10.                                      | Amortization of ITC                            | (291)                         | 0                             | (291)                               | 0                    | (291)                      |
| 11.                                      | Franchise and other taxes                      | 71,480                        | 0                             | 71,480                              | 0                    | 71,480                     |
| 12.                                      | Property taxes                                 | 126,424                       | 0                             | 126,424                             | 0                    | 126,424                    |
| 13.                                      | Payroll taxes                                  | 274,501                       | (3)                           | 274,498                             | 0                    | 274,498                    |
| 14.                                      | Regulatory fee                                 | 0                             | 21,284                        | 21,284                              | 3,198                | 24,482                     |
| 15.                                      | Gross receipts tax                             | (5,409)                       | 5,409                         | 0                                   | 0                    | 0                          |
| 16.                                      | State income tax                               | 0                             | 52,882                        | 52,882                              | 68,433               | 121,315                    |
| 17.                                      | Federal income tax                             | 0                             | 581,345                       | 581,345                             | 752,310              | 1,333,655                  |
| 18.                                      | Total operating expenses                       | <u>12,488,142</u>             | <u>109,802</u>                | <u>12,597,944</u>                   | <u>823,941</u>       | <u>13,421,885</u>          |
| 19.                                      | Net operating income for a return              | <u>\$2,672,657</u>            | <u>(\$68,015)</u>             | <u>\$2,604,642</u>                  | <u>\$1,460,365</u>   | <u>\$4,065,007</u>         |
| <b>RATE BASE</b>                         |  |                               |                               |                                     |                      |                            |
| 20.                                      | Plant in service                               | \$98,097,571                  | \$5,720,252                   | \$103,817,823                       | \$0                  | \$103,817,823              |
| 21.                                      | Accumulated depreciation                       | (25,978,450)                  | (440,347)                     | (26,418,797)                        | 0                    | (26,418,797)               |
| 22.                                      | Net plant in service                           | 72,119,121                    | 5,279,905                     | 77,399,026                          | 0                    | 77,399,026                 |
| 23.                                      | Cash working capital                           | 1,078,109                     | (43,960)                      | 1,034,149                           | 0                    | 1,034,149                  |
| 24.                                      | Contributions in aid of construction           | (19,250,422)                  | 486,760                       | (18,763,662)                        | 0                    | (18,763,662)               |
| 25.                                      | Advances in aid of construction                | (23,760)                      | 0                             | (23,760)                            | 0                    | (23,760)                   |
| 26.                                      | Accumulated deferred income taxes              | (5,327,852)                   | (369,144)                     | (5,696,996)                         | 0                    | (5,696,996)                |
| 27.                                      | Customer deposits                              | (169,619)                     | (27,514)                      | (197,133)                           | 0                    | (197,133)                  |
| 28.                                      | Gain on sale and flow back taxes               | (519,035)                     | 169,230                       | (349,805)                           | 0                    | (349,805)                  |
| 29.                                      | Plant acquisition adjustment                   | (2,386,479)                   | 81,810                        | (2,304,669)                         | 0                    | (2,304,669)                |
| 30.                                      | Excess book value                              | (232,088)                     | 165,650                       | (66,438)                            | 0                    | (66,438)                   |
| 31.                                      | Cost-free capital                              | 0                             | (121,791)                     | (121,791)                           | 0                    | (121,791)                  |
| 32.                                      | Average tax accruals                           | 60,228                        | (127,697)                     | (67,469)                            | 0                    | (67,469)                   |
| 33.                                      | Regulatory liability for excess deferred taxes | (197,164)                     | 0                             | (197,164)                           | 0                    | (197,164)                  |
| 34.                                      | Deferred charges                               | 1,168,031                     | 47,866                        | 1,215,897                           | 0                    | 1,215,897                  |
| 35.                                      | Pro forma plant                                | <u>4,824,862</u>              | <u>(4,824,862)</u>            | <u>0</u>                            | <u>0</u>             | <u>0</u>                   |
| 36.                                      | Original cost rate base                        | <u>\$51,143,932</u>           | <u>\$716,252</u>              | <u>\$51,860,184</u>                 | <u>\$0</u>           | <u>\$51,860,184</u>        |
| 37.                                      | Overall Rate of Return on Rate Base            | 5.23%                         |                               | 5.02%                               |                      | 7.64%                      |

CAROLINA WATER SERVICE, INC., OF NC  
Docket No. W-354, Sub 356  
STATEMENT OF OPERATING INCOME FOR RETURN, RATE BASE AND OVERALL RETURN  
For The Test Year Ended December 31, 2016  
CWSNC SEWER OPERATIONS

| Line No.                                 | Item   | Amount Per Application<br>(a) | Settlement Adjustments<br>(b) | After Settlement Adjustments<br>(c) | Rate Increase<br>(d) | After Rate Increase<br>(e) |
|--|--|-------------------------------|-------------------------------|-------------------------------------|----------------------|----------------------------|
| <b>NET OPERATING INCOME FOR A RETURN</b> |  |                               |                               |                                     |                      |                            |
| Operating Revenues:                      |  |                               |                               |                                     |                      |                            |
| 1.                                       | Service revenues                               | \$11,759,683                  | (\$3,942)                     | \$11,755,741                        | \$871,485            | \$12,627,226               |
| 2.                                       | Miscellaneous revenues                         | 106,842                       | 20,672                        | 127,514                             | 2,353                | 129,867                    |
| 3.                                       | Uncollectible accounts                         | (73,516)                      | 630                           | (72,886)                            | (5,403)              | (78,289)                   |
| 4.                                       | Total operating revenues                       | <u>11,793,009</u>             | <u>17,360</u>                 | <u>11,810,369</u>                   | <u>868,435</u>       | <u>12,678,804</u>          |
| Operating Expenses:                      |  |                               |                               |                                     |                      |                            |
| 5.                                       | Maintenance expenses                           | 4,766,270                     | 369,614                       | 5,135,884                           | 0                    | 5,135,884                  |
| 6.                                       | General expenses                               | 2,049,207                     | (187,341)                     | 1,661,866                           | 0                    | 1,661,866                  |
| 7.                                       | Depreciation expense                           | 2,069,366                     | 117,093                       | 2,186,459                           | 0                    | 2,186,459                  |
| 8.                                       | Amortization of CIAC                           | (621,136)                     | (134,136)                     | (755,272)                           | 0                    | (755,272)                  |
| 9.                                       | Amortization of PAA                            | (14,466)                      | (2,402)                       | (16,868)                            | 0                    | (16,868)                   |
| 10.                                      | Amortization of IIC                            | (228)                         | 0                             | (228)                               | 0                    | (228)                      |
| 11.                                      | Franchise and other taxes                      | 55,912                        | 0                             | 55,912                              | 0                    | 55,912                     |
| 12.                                      | Property taxes                                 | 74,840                        | 0                             | 74,840                              | 0                    | 74,840                     |
| 13.                                      | Payroll taxes                                  | 164,156                       | 141                           | 164,297                             | 0                    | 164,297                    |
| 14.                                      | Regulatory fee                                 | 0                             | 16,535                        | 16,535                              | 1,215                | 17,750                     |
| 15.                                      | Gross receipts tax                             | (4,231)                       | 4,231                         | 0                                   | 0                    | 0                          |
| 16.                                      | State income tax                               | 0                             | 65,281                        | 65,281                              | 26,017               | 91,298                     |
| 17.                                      | Federal income tax                             | 0                             | 717,658                       | 717,658                             | 285,009              | 1,003,667                  |
| 18.                                      | Total operating expenses                       | <u>8,539,690</u>              | <u>766,674</u>                | <u>9,306,364</u>                    | <u>313,241</u>       | <u>9,619,605</u>           |
| 19.                                      | Net operating income for a return              | <u>\$3,253,319</u>            | <u>(\$749,314)</u>            | <u>\$2,504,005</u>                  | <u>\$555,194</u>     | <u>\$3,059,199</u>         |
| <b>RATE BASE</b>                         |  |                               |                               |                                     |                      |                            |
| 20.                                      | Plant in service                               | \$77,801,962                  | \$2,469,614                   | \$80,271,576                        | \$0                  | \$80,271,576               |
| 21.                                      | Accumulated depreciation                       | (18,908,391)                  | (\$58,333)                    | (19,466,724)                        | 0                    | (19,466,724)               |
| 22.                                      | Net plant in service                           | <u>58,893,571</u>             | <u>1,911,281</u>              | <u>60,804,852</u>                   | <u>0</u>             | <u>60,804,852</u>          |
| 23.                                      | Cash working capital                           | 775,208                       | 824                           | 776,027                             | 0                    | 776,027                    |
| 24.                                      | Contributions in aid of construction           | (19,151,675)                  | 353,325                       | (18,798,350)                        | 0                    | (18,798,350)               |
| 25.                                      | Advances in aid of construction                | (9,180)                       | 0                             | (9,180)                             | 0                    | (9,180)                    |
| 26.                                      | Accumulated deferred income taxes              | (3,210,139)                   | (274,731)                     | (3,484,870)                         | 0                    | (3,484,870)                |
| 27.                                      | Customer deposits                              | (100,204)                     | (16,253)                      | (116,457)                           | 0                    | (116,457)                  |
| 28.                                      | Gain on sale and flow back taxes               | (256,762)                     | 85,210                        | (170,552)                           | 0                    | (170,552)                  |
| 29.                                      | Plant acquisition adjustment                   | 236,753                       | 23,020                        | 259,773                             | 0                    | 259,773                    |
| 30.                                      | Excess book value                              | (295,553)                     | 197,409                       | -(98,144)                           | 0                    | -(98,144)                  |
| 31.                                      | Cost-free capital                              | 0                             | (139,708)                     | (139,708)                           | 0                    | (139,708)                  |
| 32.                                      | Average tax accruals                           | 36,268                        | (76,995)                      | (40,727)                            | 0                    | (40,727)                   |
| 33.                                      | Regulatory liability for excess deferred taxes | (122,016)                     | 0                             | (122,016)                           | 0                    | (122,016)                  |
| 34.                                      | Deferred charges                               | 839,016                       | (671,294)                     | 167,722                             | 0                    | 167,722                    |
| 35.                                      | Pro forma plant                                | <u>3,479,209</u>              | <u>(3,479,209)</u>            | <u>0</u>                            | <u>0</u>             | <u>0</u>                   |
| 36.                                      | Original cost rate base                        | <u>\$41,114,491</u>           | <u>(\$2,086,122)</u>          | <u>\$39,028,369</u>                 | <u>\$0</u>           | <u>\$39,028,369</u>        |
| 37.                                      | Overall Rate of Return on Rate Base            | 7.91%                         |                               | 6.42%                               |                      | 7.84%                      |

CAROLINA WATER SERVICE, INC., OF NC  
Docket No. W-354, Sub 356  
STATEMENT OF OPERATING INCOME FOR RETURN, RATE BASE AND OVERALL RETURN  
For The Test Year Ended December 31, 2016  
BRADFIELD FARMS/FAIRFIELD HARBOUR WATER OPERATIONS

| Line No.                                 | Item   | Amount Per Application (a) | Settlement Adjustments (b) | After Settlement Adjustments (c) | Rate Increase (d) | After Rate Increase (e) |
|--|--|----------------------------|----------------------------|----------------------------------|-------------------|-------------------------|
| <b>NET OPERATING INCOME FOR A RETURN</b> |  |                            |                            |                                  |                   |                         |
| <b>Operating Revenues:</b>               |  |                            |                            |                                  |                   |                         |
| 1.                                       | Service revenues                               | \$719,407                  | (\$1,898)                  | \$717,509                        | \$233,246         | \$950,755               |
| 2.                                       | Miscellaneous revenues                         | 8,352                      | 31,000                     | 39,352                           | 793               | 40,145                  |
| 3.                                       | Uncollectible accounts                         | (8,476)                    | 81                         | (8,395)                          | (2,729)           | (11,124)                |
| 4.                                       | <b>Total operating revenues</b>                | <b>719,283</b>             | <b>29,183</b>              | <b>748,466</b>                   | <b>231,310</b>    | <b>979,776</b>          |
| <b>Operating Expenses:</b>               |  |                            |                            |                                  |                   |                         |
| 5.                                       | Maintenance expenses                           | 324,615                    | 10,265                     | 334,880                          | 0                 | 334,880                 |
| 6.                                       | General expenses                               | 323,434                    | (18,032)                   | 305,402                          | 0                 | 305,402                 |
| 7.                                       | Depreciation expense                           | 148,059                    | (17,874)                   | 130,185                          | 0                 | 130,185                 |
| 8.                                       | Amortization of CIAC                           | (35,750)                   | (8,081)                    | (43,831)                         | 0                 | (43,831)                |
| 9.                                       | Amortization of PAA                            | 9,916                      | 1,012                      | 10,928                           | 0                 | 10,928                  |
| 10.                                      | Amortization of IIC                            | 0                          | 0                          | 0                                | 0                 | 0                       |
| 11.                                      | Franchise and other taxes                      | 5,038                      | 0                          | 5,038                            | 0                 | 5,038                   |
| 12.                                      | Property taxes                                 | 8,414                      | 0                          | 8,414                            | 0                 | 8,414                   |
| 13.                                      | Payroll taxes                                  | 32,662                     | (140)                      | 32,522                           | 0                 | 32,522                  |
| 14.                                      | Regulatory fee                                 | 0                          | 1,048                      | 1,048                            | 324               | 1,372                   |
| 15.                                      | Gross receipts tax                             | 0                          | 0                          | 0                                | 0                 | 0                       |
| 16.                                      | State income tax                               | 0                          | (2,647)                    | (2,647)                          | 6,910             | 4,263                   |
| 17.                                      | Federal income tax                             | 0                          | (29,099)                   | (29,099)                         | 76,179            | 47,080                  |
| 18.                                      | <b>Total operating expenses</b>                | <b>816,388</b>             | <b>(63,548)</b>            | <b>752,840</b>                   | <b>83,433</b>     | <b>836,273</b>          |
| 19.                                      | <b>Net operating income for a return</b>       | <b>(\$97,105)</b>          | <b>\$92,731</b>            | <b>(\$4,374)</b>                 | <b>\$147,877</b>  | <b>\$143,503</b>        |
| <b>RATE BASE</b>                         |  |                            |                            |                                  |                   |                         |
| 20.                                      | Plant in service                               | \$5,184,997                | \$77,407                   | \$5,262,404                      | \$0               | \$5,262,404             |
| 21.                                      | Accumulated depreciation                       | (1,833,158)                | 92,007                     | (1,741,151)                      | 0                 | (1,741,151)             |
| 22.                                      | Net plant in service                           | 3,351,839                  | 169,414                    | 3,521,253                        | 0                 | 3,521,253               |
| 23.                                      | Cash working capital                           | 84,806                     | (4,771)                    | 80,035                           | 0                 | 80,035                  |
| 24.                                      | Contributions in aid of construction           | (1,153,155)                | 22,145                     | (1,131,010)                      | 0                 | (1,131,010)             |
| 25.                                      | Advances in aid of construction                | 0                          | 0                          | 0                                | 0                 | 0                       |
| 26.                                      | Accumulated deferred income taxes              | (725,853)                  | 38,477                     | (687,376)                        | 0                 | (687,376)               |
| 27.                                      | Customer deposits                              | (15,187)                   | (2,279)                    | (17,466)                         | 0                 | (17,466)                |
| 28.                                      | Gain on sale and flow back taxes               | 0                          | 0                          | 0                                | 0                 | 0                       |
| 29.                                      | Plant acquisition adjustment                   | (10,498)                   | (5,950)                    | (16,448)                         | 0                 | (16,448)                |
| 30.                                      | Excess book value                              | 0                          | 0                          | 0                                | 0                 | 0                       |
| 31.                                      | Cost-free capital                              | 0                          | 0                          | 0                                | 0                 | 0                       |
| 32.                                      | Average tax accruals                           | 3,511                      | (7,928)                    | (4,417)                          | 0                 | (4,417)                 |
| 33.                                      | Regulatory liability for excess deferred taxes | (23,008)                   | 0                          | (23,008)                         | 0                 | (23,008)                |
| 34.                                      | Deferred charges                               | 156,676                    | (47,474)                   | 109,202                          | 0                 | 109,202                 |
| 35.                                      | Pro forma plant                                | 153,728                    | (153,728)                  | 0                                | 0                 | 0                       |
| 36.                                      | <b>Original cost rate base</b>                 | <b>\$1,822,859</b>         | <b>\$7,906</b>             | <b>\$1,830,765</b>               | <b>\$0</b>        | <b>\$1,830,765</b>      |
| 37.                                      | <b>Overall Rate of Return on Rate Base</b>     | <b>-5.33%</b>              |                            | <b>-0.24%</b>                    |                   | <b>7.84%</b>            |

CARQUINA WATER SERVICE, INC., OF NC  
Docket No. W-354, Sub 356  
STATEMENT OF OPERATING INCOME FOR RETURN, RATE BASE AND OVERALL RETURN  
For The Year Ended December 31, 2016  
BRADFORD FARMS/FAIRFIELD HARBOUR SEWER OPERATIONS

| Line No.                                 | Item   | Amount Per Application (a) | Settlement Adjustments (b) | After Settlement Adjustments (c) | Rate Increase (d) | After Rate Increase (e) |
|--|--|----------------------------|----------------------------|----------------------------------|-------------------|-------------------------|
| <b>NET OPERATING INCOME FOR A RETURN</b> |  |                            |                            |                                  |                   |                         |
| 1.                                       | Operating Revenues:                            |                            |                            |                                  |                   |                         |
| 2.                                       | Service revenues                               | \$1,370,772                | (\$106)                    | \$1,370,666                      | \$362,650         | \$1,733,316             |
| 3.                                       | Miscellaneous revenues                         | \$15,915                   | \$701                      | \$16,616                         | \$1,233           | \$17,849                |
| 4.                                       | Uncollectible accounts                         | (\$15,131)                 | \$114                      | (\$15,037)                       | (\$4,243)         | (\$19,280)              |
|  | Total operating revenues                       | 1,370,536                  | 709                        | 1,371,245                        | 359,640           | 1,730,885               |
| 5.                                       | Operating Expenses:                            |                            |                            |                                  |                   |                         |
| 6.                                       | Maintenance expenses                           | \$18,271                   | 10,590                     | \$28,861                         | 0                 | \$28,861                |
| 7.                                       | General expenses                               | 435,136                    | (80,448)                   | 354,688                          | 0                 | 354,688                 |
| 8.                                       | Depreciation expense                           | 327,765                    | 4,270                      | 332,035                          | 0                 | 332,035                 |
| 9.                                       | Amortization of CIAC                           | (142,851)                  | (32,247)                   | (175,098)                        | 0                 | (175,098)               |
| 10.                                      | Amortization of PAA                            | (687)                      | 41,654                     | 40,967                           | 0                 | 40,967                  |
| 11.                                      | Amortization of ITC                            | 0                          | 0                          | 0                                | 0                 | 0                       |
| 12.                                      | Franchise and other taxes                      | 9,600                      | 0                          | 9,600                            | 0                 | 9,600                   |
| 13.                                      | Property taxes                                 | 9,715                      | 0                          | 9,715                            | 0                 | 9,715                   |
| 14.                                      | Payroll taxes                                  | 36,125                     | (161)                      | 35,964                           | 0                 | 35,964                  |
| 15.                                      | Regulatory fee                                 | 0                          | 1,920                      | 1,920                            | 503               | 2,423                   |
| 16.                                      | Gross receipts tax                             | 0                          | 2,231                      | 2,231                            | 0                 | 2,231                   |
| 17.                                      | State income tax                               | 0                          | 24,521                     | 24,521                           | 10,774            | 13,005                  |
| 18.                                      | Federal income tax                             | 1,193,076                  | (27,670)                   | 1,165,406                        | 118,443           | 1,283,849               |
| 19.                                      | Total operating expenses                       | \$177,460                  | \$28,379                   | \$205,839                        | \$229,920         | \$435,759               |
|  | Net operating income for a return              |                            |                            |                                  |                   |                         |
| 20.                                      | RATE BASE                                      |                            |                            |                                  |                   |                         |
| 21.                                      | Plant in service                               | \$11,919,282               | \$662,004                  | \$12,581,286                     | \$0               | \$12,581,286            |
| 22.                                      | Accumulated depreciation                       | (\$3,216,547)              | \$20,511                   | (\$2,996,036)                    | 0                 | (\$2,996,036)           |
| 23.                                      | Net plant in service                           | 8,702,735                  | 882,515                    | 9,585,250                        | 0                 | 9,585,250               |
| 24.                                      | Cash working capital                           | \$118,926                  | (\$8,732)                  | \$110,194                        | 0                 | \$110,194               |
| 25.                                      | Contributions in aid of construction           | (\$8,444,565)              | \$102,776                  | (\$8,341,809)                    | 0                 | (\$8,341,809)           |
| 26.                                      | Advances in aid of construction                | \$0                        | \$0                        | \$0                              | 0                 | \$0                     |
| 27.                                      | Accumulated deferred income taxes              | (\$887,115)                | \$44,707                   | (\$842,408)                      | 0                 | (\$842,408)             |
| 28.                                      | Customer deposits                              | (\$17,461)                 | (\$2,619)                  | (\$20,080)                       | 0                 | (\$20,080)              |
| 29.                                      | Gain on sale and flow back taxes               | \$0                        | \$0                        | \$0                              | 0                 | \$0                     |
| 30.                                      | Plant acquisition adjustment                   | \$1,058,262                | (\$41,156)                 | \$1,017,106                      | 0                 | \$1,017,106             |
| 31.                                      | Excess book value                              | \$0                        | \$0                        | \$0                              | 0                 | \$0                     |
| 32.                                      | Cost-free capital                              | \$0                        | \$0                        | \$0                              | 0                 | \$0                     |
| 33.                                      | Average tax accruals                           | \$4,211                    | (\$9,453)                  | (\$5,242)                        | 0                 | (\$5,242)               |
| 34.                                      | Regulatory liability for excess deferred taxes | (\$27,756)                 | \$0                        | (\$27,756)                       | 0                 | (\$27,756)              |
| 35.                                      | Deferred charges                               | \$93,017                   | (\$6,999)                  | \$86,018                         | 0                 | \$86,018                |
| 36.                                      | Pro forma plant                                | \$5,109,034                | (\$508,800)                | \$4,599,234                      | 0                 | \$4,599,234             |
| 37.                                      | Original cost rate base                        |                            |                            |                                  |                   |                         |
|  | Overall Rate of Return on Rate Base            | 3.47%                      |                            | 3.70%                            |                   | 7.84%                   |



CAROLINA WATER SERVICE, INC. OF NC  
Docket No. W-354, Sub 356  
REVENUE IMPACT OF STIPULATED ADJUSTMENTS  
For The Test Year Ended December 31, 2016

| Line No. | Item  | CWSNC Water<br>(a) | CWSNC Sewer<br>(b) | BF/FH Water<br>(c) | BF/FH Sewer<br>(d) |
|----------|---|--------------------|--------------------|--------------------|--------------------|
| 1.       | Increase/(decrease) in total revenue per Company                          | \$3,290,544        | \$1,538,630        | \$310,166          | \$418,159          |
| 2.       | Difference in calculation of revenue requirement based on Company amounts | 13                 | (10)               | (1)                | 0                  |
| 3.       | Amort. of ITC not included in oper. rev. deduct.                          | 0                  | (228)              | 0                  | 0                  |
| 4.       | GRT included in error by the Company                                      | 5,415              | 4,237              | 0                  | 0                  |
| 5.       | Adjust capital structure to 48% debt and 52% equity                       | (43,344)           | (34,843)           | (1,545)            | (4,329)            |
| 6.       | Adjust debt cost rate to 5.93%  | (159,793)          | (128,457)          | (5,695)            | (15,962)           |
| 7.       | Adjust return on equity to 9.6%   | (291,197)          | (234,094)          | (10,378)           | (29,089)           |
| 8.       | Adjustment to uncollectibles  | (1,736)            | (630)              | (81)               | (114)              |
| 9.       | Adjustment to forfeited discounts   | (36)               | 170                | (4)                | (19)               |
| 10.      | Adjustment to miscellaneous revenues                                      | (35,280)           | (20,842)           | (30,995)           | (682)              |
| 11.      | Update revenues to 6/30/2017  | (4,735)            | 3,942              | 1,898              | 106                |
| 12.      | Adjustment to include plant held for future use                           | (10,182)           | (54,852)           | 0                  | 0                  |
| 13.      | Adjustment to remove pro forma estimates                                  | (514,277)          | (370,845)          | (16,386)           | (54,232)           |
| 14.      | Adjustment to include cost centers GL additions                           | 33,790             | 18,721             | 4,620              | 5,027              |
| 15.      | Adjustment to update rate base  | 40,157             | 28,723             | 591                | 7,714              |
| 16.      | Adjustment to include actual GL additions                                 | 559,619            | 251,243            | 14,573             | 87,893             |
| 17.      | Adjustment to cash working capital  | (4,686)            | 88                 | (509)              | (931)              |
| 18.      | Adjustment to ADIT  | (39,347)           | (29,283)           | 4,101              | 4,765              |
| 19.      | Adjustment to customer deposits   | (2,933)            | (1,732)            | (243)              | (279)              |
| 20.      | Adjustment to gain on sale  | 18,038             | 9,189              | 0                  | 0                  |
| 21.      | Adjustment to excess book value   | 17,656             | 21,042             | 0                  | 0                  |
| 22.      | Adjustment to cost free capital   | (12,982)           | (14,891)           | 0                  | 0                  |
| 23.      | Adjustment to average tax accruals  | (13,611)           | (8,207)            | (845)              | (1,008)            |
| 24.      | Adjustment to deferred charges  | 5,102              | (71,553)           | (5,060)            | (959)              |
| 25.      | Adjustment to maintenance salaries  | 114,750            | 226,232            | (21,865)           | 19,687             |
| 26.      | Adjustment to purchased water/sewer                                       | (81,149)           | (24,347)           | 30,445             | 0                  |
| 27.      | Adjustment to maintenance and repair                                      | (195,216)          | 95,014             | (4,027)            | (590)              |
| 28.      | Adjustment to maintenance testing   | 32,535             | (30,747)           | 542                | (3,305)            |
| 29.      | Adjustment to chemicals   | (103,980)          | 103,981            | 5,185              | (5,185)            |
| 30.      | Adjustment to general salaries and wages                                  | (15,443)           | (275,925)          | 3,035              | (53,232)           |
| 31.      | Adjustment to regulatory commission expense                               | (86,096)           | (50,865)           | (9,572)            | (13,432)           |
| 32.      | Adjustment to miscellaneous   | (98,723)           | (61,094)           | (11,520)           | (13,897)           |
| 33.      | Adjustment to depreciation expense  | 148,628            | 117,257            | (17,899)           | 4,276              |
| 34.      | Adjustment to amortization expense - CIAC                                 | (236,346)          | (134,324)          | (8,092)            | (32,292)           |
| 35.      | Adjustment to amortization expense - PAA                                  | (30,848)           | (2,405)            | 1,013              | 41,712             |
| 36.      | Adjustment to payroll tax   | (3)                | 141                | (140)              | (161)              |
| 37.      | Revenue impact of Public Staff adjustments                                | (1,006,240)        | (670,194)          | (78,854)           | (58,519)           |
| 38.      | Increase/(decrease) per Public Staff                                      | \$2,284,304        | \$868,436          | \$231,312          | \$359,640          |

## Exhibit C

**CAROLINA WATER SERVICE, INC., OF NC**  
Docket No. W-354, Sub 356  
**CALCULATION OF GROSS REVENUE EFFECT FACTORS**  
For The Test Year Ended December 31, 2016

| Line No.  | Item                                     | Capital Structure<br>(a) | Cost Rates<br>(b)       | Retention Factor<br>(c) | Gross Revenue Effect<br>(d) |
|---|--|--------------------------|-------------------------|-------------------------|-----------------------------|
| <b><u>Rate Base Factor - Water Operations</u></b> |  |                          |                         |                         |                             |
| 1.  | Debt                                     | 48.00% [1]               | 5.93% [1]               | 0.998600 [2]            | 0.028504 [6]                |
| 2.  | Equity                                   | 52.00% [1]               | 9.60% [1]               | 0.639304 [3]            | 0.078085 [6]                |
| 3.  | Total                                    | <u>100.00%</u>           |                         |                         | <u>0.106589</u>             |
| <b><u>Rate Base Factor - Sewer Operations</u></b> |  |                          |                         |                         |                             |
| 4.  | Debt                                     | 48.00% [1]               | 5.93% [1]               | 0.998600 [4]            | 0.028504 [6]                |
| 5.  | Equity                                   | 52.00% [1]               | 9.60% [1]               | 0.639304 [5]            | 0.078085 [6]                |
| 6.  | Total                                    | <u>100.00%</u>           |                         |                         | <u>0.106589</u>             |
|   |  |                          |                         |                         |                             |
|   |  | Water Operations<br>(a)  | Sewer Operations<br>(b) |                         |                             |
| 7.  | <b><u>Net Income Factor:</u></b>         |                          |                         |                         |                             |
|   | Total revenue                            | 1.000000                 | 1.000000                |                         |                             |
| 8.  | Gross receipts tax (L1 x statutory rate) | 0.000000                 | 0.000000                |                         |                             |
| 9.  | Regulatory fee (L1 x .14%)               | 0.001400                 | 0.001400                |                         |                             |
| 10.   | Balance (L4 - L5 - L6)                   | <u>0.998600</u>          | <u>0.998600</u>         |                         |                             |
| 11.   | State income tax (L7 x 3%)               | 0.029958                 | 0.029958                |                         |                             |
| 12.   | Balance (L7 - L8)                        | <u>0.968642</u>          | <u>0.968642</u>         |                         |                             |
| 13.   | Federal income tax (L9 x 34%)            | <u>0.329338</u>          | <u>0.329338</u>         |                         |                             |
| 14.   | Retention factor (L9 - L10)              | <u>0.639304</u>          | <u>0.639304</u>         |                         |                             |

[1] Per Joint Stipulation

[2] Column (a), Line 10.

[3] Column (a), Line 14.

[4] Column (b), Line 10.

[5] Column (b), Line 14.

[6] Column (a) multiplied by Column (b) divided by Column (c).

**COMPANY'S PRESENT AND PROPOSED RATES AND THE PUBLIC STAFF'S  
RECOMMENDED WATER AND SEWER RATES**

**WATER RATES AND CHARGES**

**UNIFORM WATER SERVICE:**

**MONTHLY METERED SERVICE: (Residential and Commercial)**

|                                      | <u>Existing</u> | <u>Proposed</u> | <u>Public Staff's<br/>Recommend</u> |
|--------------------------------------|-----------------|-----------------|-------------------------------------|
| Base Facilities Charges (zero usage) |                 |                 |                                     |
| < 1" meter                           | \$ 22.40        | \$ 26.95        | \$ 24.44                            |
| 1" meter                             | \$ 56.01        | \$ 67.38        | \$ 61.10                            |
| 1-1/2" meter                         | \$ 112.02       | \$ 134.75       | \$ 122.20                           |
| 2" meter                             | \$ 179.23       | \$ 215.60       | \$ 195.52                           |
| 3" meter                             | \$ 336.06       | \$ 404.25       | \$ 366.60                           |
| 4" meter                             | \$ 560.10       | \$ 673.75       | \$ 611.00                           |
| 6" meter                             | \$1,120.19      | \$1,347.50      | \$1,222.00                          |

|   |                 |                 |                 |
|---|-----------------|-----------------|-----------------|
| <b><u>AVERAGE RESIDENTIAL BILL</u> (based on 3,980 gallons)</b> | <b>\$ 47.87</b> | <b>\$ 57.60</b> | <b>\$ 55.09</b> |
|---|-----------------|-----------------|-----------------|

**USAGE CHARGE:**

|   |         |         |         |
|---|---------|---------|---------|
| A. Treated Water/1,000 gallons  | \$ 6.40 | \$ 7.70 | \$ 7.70 |
| B. Untreated Water/1,000 gallons<br>(Brandywine Bay Irrigation Water) | \$ 4.11 | \$ 4.11 | \$ 4.11 |
| C. Purchased Water for Resale   |         |         |         |

| <u>Service Area</u> | <u>Bulk Provider</u>   | <u>Usage Charge/<br/>1,000 gallons</u> | <u>Usage charge<br/>/1,000 gallons</u> | <u>Usage charge<br/>/1,000 gallons</u> |
|---------------------|------------------------|--|--|--|
| Carolina Forest     | Montgomery County      | \$ 3.19                                | \$ 3.19                                | \$ 3.19                                |
| High Vista Est.     | City of Hendersonville | \$ 3.25                                | \$ 3.25                                | \$ 3.25                                |
| Riverpointe         | Charlotte Water        | \$ 6.30                                | \$ 6.30                                | \$ 6.30                                |
| Whispering Pines    | Town of Southern Pines | \$ 2.23                                | \$ 2.23                                | \$ 2.23                                |
| White Oak Plt./     |                        |  |  |  |
| Lee Forest          | Johnston County        | \$ 3.25                                | \$ 3.25                                | \$ 2.28                                |
| Winston Plt.        | Johnston County        | \$ 3.25                                | \$ 3.25                                | \$ 2.28                                |
| Winston Point       | Johnston County        | \$ 3.25                                | \$ 3.25                                | \$ 2.28                                |
| Woodrun             | Montgomery County      | \$ 3.19                                | \$ 3.19                                | \$ 3.19                                |
| Yorktown            | City of Winston-Salem  | \$ 5.01                                | \$ 5.01                                | \$ 5.01                                |
| Zemosa Acres        | City of Concord        | \$ 5.27                                | \$ 5.27                                | \$ 5.27                                |

|   |           |                 |           |
|---|-----------|-----------------|-----------|
| <b><u>MONTHLY FLAT RATE SERVICE:</u></b><br>(per residence or single family equivalent) | <b>\$</b> | <b>\$ 50.17</b> | <b>\$</b> |
|---|-----------|-----------------|-----------|

|  |                 |  |                 |
|--|-----------------|--|-----------------|
| <b><u>MONTHLY FLAT RATE SERVICE:</u></b> | <b>\$ 41.60</b> |  | <b>\$ 47.45</b> |
|--|-----------------|--|-----------------|

**AVAILABILITY RATES (semi-annual):**

|   |          |          |          |
|---|----------|----------|----------|
| Applicable only to property owners in Carolina Forest<br>and Woodrun Subdivision in Montgomery County | \$ 24.64 | \$ 24.64 | \$ 24.65 |
|---|----------|----------|----------|

**AVAILABILITY RATES (monthly):**

|   |          |          |          |
|---|----------|----------|----------|
| Applicable only to property owners in Linville Ridge<br>Subdivision | \$ 12.32 | \$ 12.32 | \$ 12.35 |
|---|----------|----------|----------|

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

Exhibit D  
Page 2 of 10

FORMER CLEARWATER SYSTEMS:

MONTHLY METERED SERVICE:

|                                      | <u>Existing</u> | <u>Proposed</u> | <u>Public Staff's<br/>Recommend</u> |
|--------------------------------------|-----------------|-----------------|-------------------------------------|
| Base Facilities Charges (zero usage) |                 |                 |                                     |
| 5/8" meter                           | \$ 16.27        |                 |                                     |
| 1" meter                             | \$ 40.67        |                 |                                     |
| 1-1/2" meter                         | \$ 81.34        |                 |                                     |
| 2" meter                             | \$ 130.14       |                 |                                     |
| 3" meter                             | \$ 244.07       |                 |                                     |
| 4" meter                             | \$ 406.76       |                 |                                     |
| 6" meter                             | \$ 813.37       |                 |                                     |
| Usage Charge, per 1,000 gallons      | \$ 4.50         |                 |                                     |

The Public Staff recommends CWSNC's Uniform Rates as shown below.

MONTHLY METERED SERVICE: (Residential and Commercial) CWSNC's Uniform Rates

|  | <u>Existing</u> | <u>Proposed</u> | <u>Public Staff's<br/>Recommend</u> |
|--|-----------------|-----------------|-------------------------------------|
| Base Facilities Charges (zero usage)   |                 |                 |                                     |
| < 1" meter   |                 | \$ 26.95        | \$ 24.44                            |
| 1" meter   |                 | \$ 67.38        | \$ 61.10                            |
| 1-1/2" meter   |                 | \$ 134.75       | \$ 122.20                           |
| 2" meter   |                 | \$ 215.60       | \$ 195.52                           |
| 3" meter   |                 | \$ 404.25       | \$ 366.60                           |
| 4" meter   |                 | \$ 673.75       | \$ 611.00                           |
| 6" meter   |                 | \$1,347.50      | \$1,222.00                          |
| Usage Charge, per 1,000 gallons<br>Treated water                                 |                 | \$ 7.70         | \$ 7.70                             |
| <u>AVERAGE RESIDENTIAL BILL</u> (based on 3,980 gallons)                         | \$ 34.18        | \$ 57.60        | \$ 55.09                            |
| <u>MONTHLY FLAT RATE SERVICE:</u><br>(per residence or single family equivalent) | \$              | \$ 50.17        | \$                                  |
| <u>MONTHLY FLAT RATE SERVICE:</u>  | \$ 41.60        |                 | \$ 47.45                            |
| Management Fee, Covington Crossing (Phases 1 & 2)                                | \$ 100.00       | \$ 100.00       | \$ 100.00                           |

TREASURE COVE, REGISTER PLACE ESTATES, NORTH HILLS  
AND GLEN ARBOR/NORTH BEND SUBDIVISION

|                                     | <u>Existing</u> | <u>Proposed</u> | <u>Public Staff's<br/>Recommend</u> |
|-------------------------------------|-----------------|-----------------|-------------------------------------|
| <u>Monthly Metered Water Rates:</u> |                 |                 |                                     |
| Base Charge, zero usage             | \$ 14.50        |                 |                                     |
| Usage charge, per 1,000 gallons     | \$ 1.90         |                 |                                     |

The Public Staff recommends the same rates as the recommended rates for Bradfield Farms and Fairfield Harbor as shown below.

MONTHLY METERED SERVICE: (Residential and Commercial)

|  | <u>Existing</u> | <u>Proposed</u> | <u>Public Staff's<br/>Recommend</u> |
|--|-----------------|-----------------|-------------------------------------|
| Base Facilities Charges (zero usage)                     |                 |                 |                                     |
| < 1" meter   |                 | \$ 26.95        | \$ 11.44                            |
| 1" meter   |                 | \$ 67.38        | \$ 28.60                            |
| 1-1/2" meter   |                 | \$ 134.75       | \$ 57.20                            |
| 2" meter   |                 | \$ 215.60       | \$ 91.52                            |
| 3" meter   |                 | \$ 404.25       | \$                                  |
| 4" meter   |                 | \$ 673.75       | \$                                  |
| 6" meter   |                 | \$1,347.50      | \$                                  |
| Usage Charge, per 1,000 gallons                          |                 | \$ 7.70         | \$ 3.36                             |
| <u>AVERAGE RESIDENTIAL BILL</u> (based on 3,980 gallons) | \$ 22.06        | \$ 57.60        | \$ 24.81                            |

**FOREST HILLS SUBDIVISION**

**Monthly Metered Water Service:**

|                                      | <u>Existing</u> | <u>Proposed</u> | <u>Public Staff's<br/>Recommend</u> |
|--------------------------------------|-----------------|-----------------|-------------------------------------|
| Base Facilities Charges (zero usage) |                 |                 |                                     |
| Residential                          | \$ 22.43        |                 |                                     |
| Commercial and Other:                |                 |                 |                                     |
| 5/8" meter                           | \$ 22.43        |                 |                                     |
| 3/4" meter                           | \$ 33.66        |                 |                                     |
| 1" meter                             | \$ 56.08        |                 |                                     |
| 1-1/2" meter                         | \$ 112.16       |                 |                                     |
| 2" meter                             | \$ 179.46       |                 |                                     |
| 3" meter                             | \$ 336.49       |                 |                                     |
| 4" meter                             | \$ 560.81       |                 |                                     |
| 6" meter                             | \$ 1,121.63     |                 |                                     |
| Usage charge, per 1,000 gallons      | \$ 5.23         |                 |                                     |

The Public Staff recommends CWSNC's Uniform Rates as shown below.

**MONTHLY METERED SERVICE:** (Residential and Commercial) CWSNC's Uniform Rates

|  | <u>Existing</u> | <u>Proposed</u> | <u>Public Staff's<br/>Recommend</u> |
|--|-----------------|-----------------|-------------------------------------|
| Base Facilities Charges (zero usage)             |                 |                 |                                     |
| < 1" meter                                       | \$              | \$ 26.95        | \$ 24.44                            |
| 1" meter   | \$              | \$ 67.38        | \$ 61.10                            |
| 1-1/2" meter                                     | \$              | \$ 134.75       | \$ 122.20                           |
| 2" meter   | \$              | \$ 215.60       | \$ 195.52                           |
| 3" meter   | \$              | \$ 404.25       | \$ 366.60                           |
| 4" meter   | \$              | \$ 673.75       | \$ 611.00                           |
| 6" meter   | \$              | \$ 1,347.50     | \$ 1,222.00                         |
| Usage Charge, per 1,000 gallons<br>Treated water |                 | \$ 7.70         | \$ 7.70                             |

**AVERAGE RESIDENTIAL BILL** (based on 3,980 gallons) \$ 43.25 \$ 57.60 \$ 55.09

**FAIRFIRD MOUNTAIN/APPLE VALLEY (a.k.a. RUMBLING BALD) SERVICE AREA, HIGHLAND SHORES  
SUBDIVISION AND LAUREL MOUNTAIN ESTATES**

**Monthly Metered Water Service:**

|                                      | <u>Existing</u> | <u>Proposed</u> | <u>Public Staff's<br/>Recommend</u> |
|--------------------------------------|-----------------|-----------------|-------------------------------------|
| Base Facilities Charges (zero usage) |                 |                 |                                     |
| Residential                          | \$ 19.23        |                 |                                     |
| Commercial and Other:                |                 |                 |                                     |
| 5/8" meter                           | \$ 19.23        |                 |                                     |
| 3/4" meter                           | \$ 28.84        |                 |                                     |
| 1" meter                             | \$ 48.07        |                 |                                     |
| 1-1/2" meter                         | \$ 96.14        |                 |                                     |
| 2" meter                             | \$ 153.83       |                 |                                     |
| 3" meter                             | \$ 288.42       |                 |                                     |
| 4" meter                             | \$ 480.70       |                 |                                     |
| 6" meter                             | \$ 961.40       |                 |                                     |
| Usage charge, per 1,000 gallons      | \$ 7.10         |                 |                                     |

The Public Staff recommends CWSNC's Uniform Rates as shown below.

MONTHLY METERED SERVICE: (Residential and Commercial) CWSNC's Uniform Rates

|  | <u>Existing</u> | <u>Proposed</u> | <u>Public Staff's<br/>Recommend</u> |
|--|-----------------|-----------------|-------------------------------------|
| Base Facilities Charges (zero usage)                     |                 |                 |                                     |
| < 1" meter   | \$              | \$ 26.95        | \$ 24.44                            |
| 1" meter   | \$              | \$ 67.38        | \$ 61.10                            |
| 1-1/2" meter   | \$              | \$ 134.75       | \$ 122.20                           |
| 2" meter   | \$              | \$ 215.60       | \$ 195.52                           |
| 3" meter   | \$              | \$ 404.25       | \$ 366.60                           |
| 4" meter   | \$              | \$ 673.75       | \$ 611.00                           |
| 6" meter   | \$              | \$1,347.50      | \$1,222.00                          |
| Usage Charge, per 1,000 gallons<br>Treated water         |                 | \$ 7.70         | \$ 7.70                             |
| <u>AVERAGE RESIDENTIAL BILL</u> (based on 3,980 gallons) | \$ 47.49        | \$ 57.60        | \$ 55.09                            |

FAIRFIELD SAPPHIRE VALLEY SERVICE AREA

Monthly Metered Water Service:

|                                      | <u>Existing</u> | <u>Proposed</u> | <u>Public Staff's<br/>Recommend</u> |
|--------------------------------------|-----------------|-----------------|-------------------------------------|
| Base Facilities Charges (zero usage) |                 |                 |                                     |
| Residential                          | \$ 19.89        |                 |                                     |
| Commercial and Other:                |                 |                 |                                     |
| 5/8" meter                           | \$ 19.89        |                 |                                     |
| 3/4" meter                           | \$ 29.84        |                 |                                     |
| 1" meter                             | \$ 49.73        |                 |                                     |
| 1-1/2" meter                         | \$ 99.45        |                 |                                     |
| 2" meter                             | \$ 159.13       |                 |                                     |
| 3" meter                             | \$ 298.37       |                 |                                     |
| 4" meter                             | \$ 497.20       |                 |                                     |
| 6" meter                             | \$ 994.41       |                 |                                     |
| Usage charge, per 1,000 gallons      | \$ 9.17         |                 |                                     |

The Public Staff recommends CWSNC's Uniform Rates as shown below.

MONTHLY METERED SERVICE: (Residential and Commercial) CWSNC's Uniform Rates

|  | <u>Existing</u> | <u>Proposed</u> | <u>Public Staff's<br/>Recommend</u> |
|--|-----------------|-----------------|-------------------------------------|
| Base Facilities Charges (zero usage)                     |                 |                 |                                     |
| < 1" meter   | \$              | \$ 26.95        | \$ 24.44                            |
| 1" meter   | \$              | \$ 67.38        | \$ 61.10                            |
| 1-1/2" meter   | \$              | \$ 134.75       | \$ 122.20                           |
| 2" meter   | \$              | \$ 215.60       | \$ 195.52                           |
| 3" meter   | \$              | \$ 404.25       | \$ 366.60                           |
| 4" meter   | \$              | \$ 673.75       | \$ 611.00                           |
| 6" meter   | \$              | \$1,347.50      | \$1,222.00                          |
| Usage Charge, per 1,000 gallons<br>Treated water         |                 | \$ 7.70         | \$ 7.70                             |
| <u>Monthly Water Availability Rate:</u>                  | \$ 9.07         | \$ 9.07         | \$ 9.10                             |
| <u>AVERAGE RESIDENTIAL BILL</u> (based on 3,980 gallons) | \$ 56.39        | \$ 57.60        | \$ 55.09                            |

CAROLINA TRACE DEVELOPMENT

Monthly Metered Water Rates:

|                                 | <u>Existing</u> | <u>Proposed</u> | <u>Public Staff's<br/>Recommend</u> |
|---------------------------------|-----------------|-----------------|-------------------------------------|
| Base Charge, zero usage         | \$ 14.05 (min.) |                 |                                     |
| Usage charge, per 1,000 gallons | \$ 5.06         |                 |                                     |

The Public Staff recommends CWSNC's Uniform Rates for Purchased Water System as shown below.

MONTHLY METERED SERVICE: (Residential and Commercial) CWSNC's Uniform Rates

Base Facilities Charges (zero usage)

|  | <u>Existing</u> | <u>Proposed</u> | <u>Public Staff's<br/>Recommend</u> |
|--|-----------------|-----------------|-------------------------------------|
| < 1" meter   |                 | \$ 26.95        | \$ 24.44                            |
| 1" meter   |                 | \$ 67.38        | \$ 61.10                            |
| 1-1/2" meter   |                 | \$ 134.75       | \$ 122.20                           |
| 2" meter   |                 | \$ 215.60       | \$ 195.52                           |
| 3" meter   |                 | \$ 404.25       | \$ 366.60                           |
| 4" meter   |                 | \$ 673.75       | \$ 611.00                           |
| 6" meter   |                 | \$1,347.50      | \$1,222.00                          |
| Purchased Water for resale, per 1,000 gallons            |                 | \$ 2.21         | \$ 2.21                             |
| <u>AVERAGE RESIDENTIAL BILL</u> (based on 3,980 gallons) | \$ 34.19        | \$ 35.75        | \$ 33.24                            |

CONNESTEE FALLS SUBDIVISION

Monthly Metered Water Service:

|                                      | <u>Existing</u> | <u>Proposed</u> | <u>Public Staff's<br/>Recommend</u> |
|--------------------------------------|-----------------|-----------------|-------------------------------------|
| Base Facilities Charges (zero usage) |                 |                 |                                     |
| 5/8 x 3/4" meter                     | \$ 27.41        |                 |                                     |
| 1" meter                             | \$ 68.51        |                 |                                     |
| 2" meter                             | \$ 219.22       |                 |                                     |
| Usage charge, per 1,000 gallons      | \$ 6.65         |                 |                                     |

The Public Staff recommends CWSNC's Uniform Rates as shown below.

MONTHLY METERED SERVICE: (Residential and Commercial) CWSNC's Uniform Rates

|  | <u>Existing</u> | <u>Proposed</u> | <u>Public Staff's<br/>Recommend</u> |
|--|-----------------|-----------------|-------------------------------------|
| Base Facilities Charges (zero usage)                     |                 |                 |                                     |
| < 1" meter   | \$              | \$ 26.95        | \$ 24.44                            |
| 1" meter   | \$              | \$ 67.38        | \$ 61.10                            |
| 1-1/2" meter   | \$              | \$ 134.75       | \$ 122.20                           |
| 2" meter   | \$              | \$ 215.60       | \$ 195.52                           |
| 3" meter   | \$              | \$ 404.25       | \$ 366.60                           |
| 4" meter   | \$              | \$ 673.75       | \$ 611.00                           |
| 6" meter   | \$              | \$1,347.50      | \$1,222.00                          |
| Usage Charge, per 1,000 gallons                          |                 |                 |                                     |
| Treated water  |                 | \$ 7.70         | \$ 7.70                             |
| <u>AVERAGE RESIDENTIAL BILL</u> (based on 3,980 gallons) | \$ 53.88        | \$ 57.60        | \$ 55.09                            |

## SEWER RATES AND CHARGES

### UNIFORM SEWER SERVICE

The Public Staff recommends the same base facility charge for all residential customers regardless as to the size of the meter as shown below.

|                                      | <u>Existing</u> | <u>Proposed</u> | <u>Public Staff<br/>Recommend</u> |
|--------------------------------------|-----------------|-----------------|-----------------------------------|
| Base Facilities Charges (zero usage) |                 |                 |                                   |
| Residential                          | \$ 42.40        |                 | \$ 45.97                          |
| Commercial and Other:                |                 |                 |                                   |
| <1" meter                            | \$ 42.40        |                 | \$ 45.97                          |
| 1" meter                             | \$ 106.00       |                 | \$ 114.93                         |
| 1-1/2" meter                         | \$ 211.99       |                 | \$ 229.85                         |
| 2" meter                             | \$ 339.18       |                 | \$ 367.76                         |
| 3" meter                             | \$ 635.97       |                 | \$ 689.55                         |
| 4" meter                             | \$1,059.95      |                 | \$1,149.25                        |
| 6" meter                             | \$2,119.90      |                 | \$2,298.50                        |
| Usage charge, per 1,000 gallons      | \$ 2.90         |                 | \$ 3.11                           |

### MONTHLY METERED SEWER SERVICE: (Residential and Commercial)

|   | <u>Existing</u> | <u>Proposed</u> | <u>Public Staff's<br/>Recommend</u> |
|---|-----------------|-----------------|-------------------------------------|
| Base Facilities Charges (zero usage)                            |                 |                 |                                     |
| < 1" meter  | \$              | \$ 48.59        |                                     |
| 1" meter  | \$              | \$ 121.48       |                                     |
| 1-1/2" meter  | \$              | \$ 242.95       |                                     |
| 2" meter  | \$              | \$ 388.72       |                                     |
| 3" meter  | \$              | \$ 728.85       |                                     |
| 4" meter  | \$              | \$1,214.75      |                                     |
| 6" meter  | \$              | \$2,429.50      |                                     |
| Usage Charge, per 1,000 gallons                                 | \$              | \$ 3.32         |                                     |
| <b><u>AVERAGE RESIDENTIAL BILL</u></b> (based on 3,417 gallons) | \$ 52.31        | \$ 59.93        | \$ 56.60                            |

### MONTHLY METERED PURCHASED SEWER SERVICE:

|  |                      |  |  |
|--|----------------------|--|--|
| Collection charge (Residential and Commercial/SFE)       | \$ 33.92             | \$ 38.87                               | \$ 36.75                               |
| Usage charge, per 1,000 gallons based on purchased water |                      |  |  |
| <u>Service Area</u>                                      | <u>Bulk Provider</u> | <u>Usage Charge/<br/>1,000 gallons</u> | <u>Usage charge<br/>/1,000 gallons</u> |
| White Oak Plt./Lee                                       |                      |  |  |
| Forest/Winston Pl.                                       | Johnston County      | \$ 4.55                                | \$ 4.82                                |
| Kings Grant  | Two Rivers Utilities | \$ 3.80                                | \$ 3.80                                |
| College Park   | Town of Dallas       | \$ 5.70                                | \$ 5.70                                |

|  |          |          |          |
|--|----------|----------|----------|
| <b><u>MONTHLY FLAT RATE SERVICE:</u></b> | \$ 52.55 | \$ 60.22 | \$ 56.57 |
|--|----------|----------|----------|

Multi-residential customers who are served by a  
Master meter shall be charged the flat rate per unit



MT CARMEL SUBDIVISION SERVICE AREAS:

|  | <u>Existing</u> | <u>Proposed</u> | <u>Public Staff's<br/>Recommend</u> |
|--|-----------------|-----------------|-------------------------------------|
| Monthly Base Facility Charge                                 | \$ 6.77         | \$ 6.77         | \$ 6.77                             |
| Usage charge/1,000 gallons<br>(based on metered water usage) | \$ 5.88         | \$ 5.88         | \$ 5.88                             |
| Monthly Collection Charge<br>(Residential and Commercial)    | \$ 27.33        | \$ 38.87        | \$ 36.75                            |

REGALWOOD AND WHITE OAK ESTATES SUBDIVISION SERVICE AREAS:

A. Monthly Flat Rate Sewer Service:

|                       | <u>Existing</u> | <u>Proposed</u> | <u>Public Staff's<br/>Recommend</u> |
|-----------------------|-----------------|-----------------|-------------------------------------|
| Residential Service   | \$ 52.55        | \$ 60.22        | \$ 56.57                            |
| White Oak High School | \$1,630.74      | \$1,868.71      | \$ 1,770.10                         |
| Child Castle Daycare  | \$ 202.85       | \$ 232.45       | \$ 219.90                           |
| Pantry                | \$ 107.74       | \$ 123.46       | \$ 116.80                           |

THE VILLAGE OF NAGS HEAD

MONTHLY METERED SERVICE: (Commercial)

|   | <u>Existing</u> | <u>Proposed</u> | <u>Public Staff's<br/>Recommend</u> |
|---|-----------------|-----------------|-------------------------------------|
| Base Facilities Charges (based on meter size with zero usage) |                 |                 |                                     |
| <1" meter   | \$ 18.43        |                 | \$                                  |
| 1" meter  | \$ 46.10        |                 | \$                                  |
| 1-1/2" meter  | \$ 92.19        |                 | \$                                  |
| 2" meter  | \$ 147.51       |                 | \$                                  |
| 3" meter  | \$ 276.58       |                 | \$                                  |
| 4" meter  | \$ 460.96       |                 | \$                                  |
| 6" meter  | \$ 921.93       |                 | \$                                  |
| Usage Charge, per 1,000 gallons                               | \$ 9.31         |                 | \$                                  |
| Minimum Monthly Charge  | \$ 62.65        |                 |                                     |
| <u>Monthly Flat Rate Sewer Service</u>                        | \$ 62.65        |                 |                                     |

The Public Staff recommends CWSNC's Uniform Rates with the same base facility charge for all residential customers regardless as to the size of the meter as shown below. Residential customers in Nags Head are monthly flat rate so the metered rate does not apply.

MONTHLY METERED SEWER SERVICE: (Residential and Commercial) CWSNC's Uniform Rates

|                                      | <u>Existing</u> | <u>Proposed</u> | <u>Public Staff<br/>Recommend</u> |
|--------------------------------------|-----------------|-----------------|-----------------------------------|
| Base Facilities Charges (zero usage) |                 |                 |                                   |
| Residential                          | \$              |                 | \$ 45.97                          |
| Commercial and Other:                |                 |                 |                                   |
| <1" meter                            | \$              | \$ 48.59        | \$ 45.97                          |
| 1" meter                             | \$              | \$ 121.48       | \$ 114.93                         |
| 1-1/2" meter                         | \$              | \$ 242.95       | \$ 229.85                         |
| 2" meter                             | \$              | \$ 388.72       | \$ 367.76                         |
| 3" meter                             | \$              | \$ 728.85       | \$ 689.55                         |
| 4" meter                             | \$              | \$ 1,214.75     | \$ 1,149.25                       |
| 6" meter                             | \$              | \$ 2,429.50     | \$ 2,298.50                       |
| Usage charge, per 1,000 gallons      | \$              | \$ 3.32         | \$ 3.11                           |

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

Exhibit D  
Page 8 of 10

|   | <u>Existing</u> | <u>Proposed</u> | <u>Public Staff<br/>Recommend</u> |
|---|-----------------|-----------------|-----------------------------------|
| <u>MONTHLY FLAT RATE SERVICE:</u>   | \$              | \$ 60.22        | \$ 56.57                          |
| Multi-residential customers who are served by a<br>Master meter shall be charged the flat rate per unit |                 |                 |                                   |

|                                   |          |          |          |
|-----------------------------------|----------|----------|----------|
| <u>RESIDENTIAL BILL FLAT RATE</u> | \$ 62.65 | \$ 60.22 | \$ 56.57 |
|-----------------------------------|----------|----------|----------|

FAIRFIELD MOUNTAIN/APPLE VALLEY (a.k.a. RUMBLING BALD) SERVICE AREA, HIGHLAND SHORES  
SUBDIVISION AND LAUREL MOUNTAIN ESTATES

Public Staff recommends CWSNC's Uniform Rates for purchased sewer system as shown below.

Monthly Sewer Rates:

|  | <u>Existing</u> | <u>Proposed</u> | <u>Public Staff<br/>Recommend</u> |
|--|-----------------|-----------------|-----------------------------------|
| Residential  |                 |                 |                                   |
| Collection charge/dwelling unit  | \$ 17.17        | \$ 38.87        | \$ 36.75                          |
| Treatment charge/dwelling unit   | <u>\$ 69.50</u> | <u>\$ 69.50</u> | <u>\$ 69.50</u>                   |
| Total monthly flat rate/dwelling unit  | \$ 86.67        | \$ 108.37       | \$ 106.25                         |
| Commercial and Other   |                 |                 |                                   |
| Minimum monthly collection and treatment charge  | \$ 86.67        | \$ 108.37       | \$ 106.25                         |
| Monthly collection and treatment charge for<br>Customers who do not take water service<br>(per single family equivalent) | \$ 86.67        | \$ 108.37       | \$ 106.25                         |
| Treatment charge per dwelling unit   |                 |                 |                                   |
| Small (less than 2,500 gallons per month)  | \$ 78.50        | \$ 78.50        | \$ 78.50                          |
| Medium (2,500 to 10,000 gallons per month)   | \$ 139.50       | \$ 139.50       | \$ 139.50                         |
| Large (over 10,000 gallons per month)  | \$ 219.50       | \$ 219.50       | \$ 219.50                         |
| Collection Charge, per 1,000 gallons   | \$ 12.16        | \$ 13.93        | \$ 13.93                          |
| <u>RESIDENTIAL BILL</u>  | \$ 86.67        | \$ 108.37       | \$ 106.25                         |

FAIRFIELD SAPPHIRE VALLEY SERVICE AREA

Monthly Sewer Rates:

|   | <u>Existing</u> | <u>Proposed</u> | <u>Public Staffs<br/>Recommend</u> |
|---|-----------------|-----------------|------------------------------------|
| Residential   |                 |                 |                                    |
| Flat Rate, per dwelling unit  | \$ 35.52        |                 |                                    |
| <u>Monthly Sewer Rates:</u>   |                 |                 |                                    |
| Commercial and Other  |                 |                 |                                    |
| Minimum rate  | \$ 35.52        |                 |                                    |
| Customers who do not take water<br>Service (per single family equivalent) | \$ 35.52        |                 |                                    |

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

Exhibit D  
Page 9 of 10

Base Facilities Charges (based on meter size with zero usage))

|                                 | <u>Existing</u> | <u>Proposed</u> | <u>Public Staff's<br/>Recommend</u> |
|---------------------------------|-----------------|-----------------|-------------------------------------|
| 5/8" meter                      | \$ 15.62        |                 |                                     |
| 3/4" meter                      | \$ 15.62        |                 |                                     |
| 1" meter                        | \$ 39.04        |                 |                                     |
| 1-1/2" meter                    | \$ 78.08        |                 |                                     |
| 2" meter                        | \$ 124.92       |                 |                                     |
| 3" meter                        | \$ 234.23       |                 |                                     |
| 4" meter                        | \$ 390.39       |                 |                                     |
| 6" meter                        | \$ 780.78       |                 |                                     |
| Usage charge, per 1,000 gallons | \$ 7.88         |                 |                                     |

The Public Staff recommends CWSNC's Uniform Rates with the same base facility charge for all residential customers regardless as to the size of the meter as shown below. Residential customers in Sapphire Valley are monthly flat rate so the metered rate does not apply at this time.

MONTHLY METERED SEWER SERVICE: (Residential and Commercial) CWSNC's Uniform Rates

|                                      | <u>Existing</u> | <u>Proposed</u> | <u>Public Staff<br/>Recommend</u> |
|--------------------------------------|-----------------|-----------------|-----------------------------------|
| Base Facilities Charges (zero usage) |                 |                 |                                   |
| Residential                          | \$              |                 | \$ 45.97                          |
| Commercial and Other:                |                 |                 |                                   |
| <1" meter                            | \$              | \$ 48.59        | \$ 45.97                          |
| 1" meter                             | \$              | \$ 121.48       | \$ 114.93                         |
| 1-1/2" meter                         | \$              | \$ 242.95       | \$ 229.85                         |
| 2" meter                             | \$              | \$ 388.72       | \$ 367.76                         |
| 3" meter                             | \$              | \$ 728.85       | \$ 689.55                         |
| 4" meter                             | \$              | \$ 1,214.75     | \$ 1,149.25                       |
| 6" meter                             | \$              | \$ 2,429.50     | \$ 2,298.50                       |
| Usage charge, per 1,000 gallons      | \$              | \$ 3.32         | \$ 3.11                           |
| <u>MONTHLY FLAT RATE SERVICE:</u>    | \$              | \$ 60.22        | \$ 56.57                          |

Multi-residential customers who are served by a  
Master meter shall be charged the flat rate per unit

|                                   |          |          |          |
|-----------------------------------|----------|----------|----------|
| <u>RESIDENTIAL BILL FLAT RATE</u> | \$ 35.52 | \$ 60.22 | \$ 56.57 |
|-----------------------------------|----------|----------|----------|

CAROLINA TRACE DEVELOPMENT

|                                     | <u>Existing</u> | <u>Proposed</u> | <u>Public Staff's<br/>Recommend</u> |
|-------------------------------------|-----------------|-----------------|-------------------------------------|
| <u>Monthly Metered Sewer Rates:</u> |                 |                 |                                     |
| Base Charge, zero usage             | \$ 35.41 (min.) |                 |                                     |
| Usage charge, per 1,000 gallons     | \$ 8.38         |                 |                                     |

The Public Staff recommends CWSNC's Uniform Rates with the same base facility charge for all residential customers regardless as to the size of the meter as shown below.

MONTHLY METERED SEWER SERVICE: (Residential and Commercial) CWSNC's Uniform Rates

|  | <u>Existing</u> | <u>Proposed</u> | <u>Public Staff<br/>Recommend</u> |
|--|-----------------|-----------------|-----------------------------------|
| Base Facilities Charges (zero usage)                     |                 |                 |                                   |
| Residential  | \$              |                 | \$ 45.97                          |
| Commercial and Other:                                    |                 |                 |                                   |
| <1" meter  | \$              | \$ 48.59        | \$ 45.97                          |
| 1" meter   | \$              | \$ 121.48       | \$ 114.93                         |
| 1-1/2" meter   | \$              | \$ 242.95       | \$ 229.85                         |
| 2" meter   | \$              | \$ 388.72       | \$ 367.76                         |
| 3" meter   | \$              | \$ 728.85       | \$ 689.55                         |
| 4" meter   | \$              | \$ 1,214.75     | \$ 1,149.25                       |
| 6" meter   | \$              | \$ 2,429.50     | \$ 2,298.50                       |
| Usage charge, per 1,000 gallons                          | \$              | \$ 3.32         | \$ 3.11                           |
| <u>AVERAGE RESIDENTIAL BILL</u> (based on 3,417 gallons) | \$ 64.04        | \$ 59.93        | \$ 56.60                          |

CONNESTEE FALLS SUBDIVISION

|                                      | <u>Existing</u> | <u>Proposed</u> | <u>Public Staff's<br/>Recommend</u> |
|--------------------------------------|-----------------|-----------------|-------------------------------------|
| Monthly Flat Rate                    | \$ 45.11        |                 |                                     |
| Monthly Metered Service              |                 |                 |                                     |
| Base Facilities Charges (zero usage) |                 |                 |                                     |
| 5/8 x 3/4" meter                     | \$ 26.86        |                 |                                     |
| 1" meter                             | \$ 67.15        |                 |                                     |
| 2" meter                             | \$ 214.89       |                 |                                     |
| Usage charge, per 1,000 gallons      | \$ 6.75         |                 |                                     |

The Public Staff recommends CWSNC's Uniform Rates with the same base facility charge for all residential customers regardless as to the size of the meter as shown below.

MONTHLY METERED SEWER SERVICE: (Residential and Commercial) CWSNC's Uniform Rates

|                                      | <u>Existing</u> | <u>Proposed</u> | <u>Public Staff<br/>Recommend</u> |
|--------------------------------------|-----------------|-----------------|-----------------------------------|
| Base Facilities Charges (zero usage) |                 |                 |                                   |
| Residential                          | \$              |                 | \$ 45.97                          |
| Commercial and Other:                |                 |                 |                                   |
| <1" meter                            | \$              | \$ 48.59        | \$ 45.97                          |
| 1" meter                             | \$              | \$ 121.48       | \$ 114.93                         |
| 1-1/2" meter                         | \$              | \$ 242.95       | \$ 229.85                         |
| 2" meter                             | \$              | \$ 388.72       | \$ 367.76                         |
| 3" meter                             | \$              | \$ 728.85       | \$ 689.55                         |
| 4" meter                             | \$              | \$ 1,214.75     | \$ 1,149.25                       |
| 6" meter                             | \$              | \$ 2,429.50     | \$ 2,298.50                       |
| Usage charge, per 1,000 gallons      | \$              | \$ 3.32         | \$ 3.11                           |
| <u>MONTHLY FLAT RATE SERVICE:</u>    | \$              | \$ 60.22        | \$ 56.57                          |

Multi-residential customers who are served by a  
Master meter shall be charged the flat rate per unit

|  |          |          |          |
|--|----------|----------|----------|
| <u>AVERAGE RESIDENTIAL BILL</u> (based on 3,417 gallons) | \$ 49.92 | \$ 59.93 | \$ 56.60 |
|--|----------|----------|----------|

**COMPANY'S PRESENT AND PROPOSED RATES AND THE PUBLIC STAFF'S  
RECOMMENDED WATER AND SEWER RATES FOR FAIRFIELD HARBOUR  
SERVICE AREA AND BRADFIELD FARMS SUBDIVISION**

**WATER RATES AND CHARGES**

**FAIRFIELD HARBOUR SERVICE AREA**

**MONTHLY METERED WATER SERVICE:**

|                                      | <u>Existing</u> | <u>Proposed</u> | <u>Public Staff's<br/>Recommend</u> |
|--------------------------------------|-----------------|-----------------|-------------------------------------|
| Base Facilities Charges (zero usage) |                 |                 |                                     |
| Residential                          | \$ 9.73         |                 |                                     |
| Commercial and Other                 |                 |                 |                                     |
| 5/8" meter                           | \$ 9.73         |                 |                                     |
| 3/4" meter                           | \$ 14.60        |                 |                                     |
| 1" meter                             | \$ 24.29        |                 |                                     |
| 1-1/2" meter                         | \$ 48.58        |                 |                                     |
| 2" meter                             | \$ 77.74        |                 |                                     |
| 3" meter                             | \$ 145.99       |                 |                                     |
| 4" meter                             | \$ 243.31       |                 |                                     |
| 6" meter                             | \$ 486.62       |                 |                                     |
| Usage Charge, per 1,000 gallons      | \$ 2.69         |                 |                                     |
| Monthly Water Availability Rate      | \$ 3.28         |                 |                                     |

**BRADFIELD FARMS SUBDIVISION**

**MONTHLY METERED WATER SERVICE:**

|                                 | <u>Existing</u> | <u>Proposed</u> | <u>Public Staff's<br/>Recommend</u> |
|---------------------------------|-----------------|-----------------|-------------------------------------|
| Base charge, zero usage         | \$ 8.29         |                 |                                     |
| Usage charge, per 1,000 gallons | \$ 1.95         |                 |                                     |

**FAIRFIELD HARBOR AND BRADFIELD FARMS NEW RATE DIVISION**

**MONTHLY METERED SERVICE: (Residential and Commercial)**

|                                      | <u>Existing</u> | <u>Proposed</u> | <u>Public Staff's<br/>Recommend</u> |
|--------------------------------------|-----------------|-----------------|-------------------------------------|
| Base Facilities Charges (zero usage) |                 |                 |                                     |
| < 1" meter                           | \$              | \$ 12.84        | \$ 11.44                            |
| 1" meter                             | \$              | \$ 32.10        | \$ 28.60                            |
| 1-1/2" meter                         | \$              | \$ 64.20        | \$ 57.20                            |
| 2" meter                             | \$              | \$ 102.72       | \$ 91.52                            |
| Usage Charge, per 1,000 gallons      |                 |                 |                                     |
| Treated Water                        | \$              | \$ 3.55         | \$ 3.36                             |

**AVERAGE RESIDENTIAL BILL (based on 3,980 gallons)**

|                  |          |          |          |
|------------------|----------|----------|----------|
| Fairfield Harbor | \$ 20.44 | \$ 26.97 | \$ 24.81 |
| Bradfield Farms  | \$ 16.05 | \$ 26.97 | \$ 24.81 |

## SEWER RATES AND CHARGES

### FAIRFIELD HARBOUR SERVICE AREA

#### Monthly Sewer Rates:

|   | <u>Existing</u> | <u>Proposed</u> | <u>Public Staff's<br/>Recommend</u> |
|---|-----------------|-----------------|-------------------------------------|
| Residential   |                 |                 |                                     |
| Flat Rate, per dwelling unit                                | \$ 37.89        |                 |                                     |
| Commercial and Other  |                 |                 |                                     |
| Monthly Flat Rate<br>(Customer's who do not take water)     | \$ 37.89        |                 |                                     |
| Monthly Metered Rates (based on meter size with zero usage) |                 |                 |                                     |
| 5/8" meter  | \$ 10.17        |                 |                                     |
| 3/4" meter  | \$ 15.26        |                 |                                     |
| 1" meter  | \$ 25.43        |                 |                                     |
| 1-1/2" meter  | \$ 50.85        |                 |                                     |
| 2" meter  | \$ 81.36        |                 |                                     |
| 3" meter  | \$ 152.56       |                 |                                     |
| 4" meter  | \$ 254.26       |                 |                                     |
| 6" meter  | \$ 508.52       |                 |                                     |
| Usage Charge, per 1,000 gallons                             | \$ 5.63         |                 |                                     |
| Monthly Water Availability Rate                             | \$ 2.64         |                 |                                     |

|   | <u>Existing</u> | <u>Proposed</u> | <u>Public Staff's<br/>Recommend</u> |
|---|-----------------|-----------------|-------------------------------------|
| <u>BRADFIELD FARMS SUBDIVISION</u>              |                 |                 |                                     |
| Residential Customer Monthly Flat Rate          | \$ 26.56        |                 |                                     |
| <u>SILVERTON and WOODLAND FARMS SUBDIVISION</u> |                 |                 |                                     |
| Monthly Bulk Flat Rate, per customer            | \$ 25.20        |                 |                                     |
| <u>HAWTHORNE AT THE GREEN APARTMENTS</u>        |                 |                 |                                     |
| Monthly Bulk Flat Rate, per customer            | \$ 25.20        |                 |                                     |

## FAIFIELD HARBOR AND BRADFIELD FARMS NEW RATE DIVISION

#### MONTHLY SEWER RATES:

|   | <u>Existing</u> | <u>Proposed</u> | <u>Public Staff's<br/>Recommend</u> |
|---|-----------------|-----------------|-------------------------------------|
| Residential   |                 |                 |                                     |
| Flat Rate, per dwelling unit                                | \$              | \$ 42.83        | \$41.40                             |
| Bulk Flat Rate, per REU                                     | \$              | \$ 41.83        | \$40.40                             |
| Commercial and Other  |                 |                 |                                     |
| Monthly Flat Rate<br>(Customer's who do not take water)     | \$              | \$ 42.83        | \$41.40                             |
| Monthly Metered Rates (based on meter size with zero usage) |                 |                 |                                     |
| <1" meter   | \$              | \$ 11.50        | \$11.12                             |
| 1-1/2" meter  | \$              | \$ 57.50        | \$55.60                             |
| 2" meter  | \$              | \$ 92.00        | \$88.96                             |

Carolina Water Service Inc., of North Carolina  
Docket No. W-354, Sub 356  
For the 12 Months Ending December 31, 2016

Exhibit E  
Page 3 of 3

|                                 | <u>Existing</u> | <u>Proposed</u> | <u>Public Staffs</u><br><u>Recommend</u> |
|---------------------------------|-----------------|-----------------|--|
| Usage Charge, per 1,000 gallons | \$              | \$ 6.36         | \$ 6.20                                  |
| Fairfield Harbour               |                 |                 |  |
| Monthly Water Availability Rate | \$ 2.64         | \$ 2.64         | \$ 2.65                                  |

RESIDENTIAL BILL FLAT RATE

|                             |          |          |          |
|-----------------------------|----------|----------|----------|
| Fairfield Harbor            | \$ 37.89 | \$ 42.83 | \$ 41.40 |
| Bradfield Farms             | \$ 26.56 | \$ 42.83 | \$ 41.40 |
| Bulk Sewer (Bradfield Area) | \$ 25.20 | \$ 41.83 | \$ 40.40 |

**AVERAGE MONTHLY BILLS AT COMPANY'S PRESENT AND PROPOSED RATES  
AND PUBLIC STAFF'S RECOMMENDED RATES**

**WATER OPERATIONS**

| <u>Service Area</u> | <u>CWSNC<br/>Present</u> | <u>CWSNC<br/>Proposed</u> | <u>Percent<br/>Increase</u> | <u>Public Staff<br/>Recommended</u> | <u>Percent<br/>Increase</u> |
|---------------------|--------------------------|---------------------------|-----------------------------|-------------------------------------|-----------------------------|
| Uniform Flat        | \$41.60                  | \$50.17                   | 20.60%                      | \$47.45                             | 14.06 %                     |
| Uniform Metered     | \$47.87                  | \$57.60                   | 20.33%                      | \$55.09                             | 15.08 %                     |
| Clearwater          | \$34.18                  | \$57.60                   | 68.52%                      | \$55.09                             | 61.18 %                     |
| Treasure Cove       | \$22.06                  | \$57.60                   | 161.11%                     | \$24.81                             | 12.47 %                     |
| Forest Hill         | \$43.25                  | \$57.60                   | 33.18%                      | \$55.09                             | 27.38 %                     |
| Fairfield Mountain  | \$47.49                  | \$57.60                   | 21.29%                      | \$55.09                             | 16.00 %                     |
| Sapphire Valley     | \$56.39                  | \$57.60                   | 2.15%                       | \$55.09                             | ( 2.31)%                    |
| Connettee Falls     | \$53.88                  | \$57.60                   | 6.90%                       | \$55.09                             | 2.25 %                      |
| Carolina Trace      | \$34.19                  | \$35.75                   | 4.56%                       | \$33.24                             | ( 2.78)%                    |
| Carolina Forest     | \$35.10                  | \$39.65                   | 12.96%                      | \$37.14                             | 5.81 %                      |
| High Vista Estates  | \$35.34                  | \$39.89                   | 12.87%                      | \$37.38                             | 5.77 %                      |
| Riverpointe         | \$47.47                  | \$52.02                   | 9.59%                       | \$49.51                             | 4.30 %                      |
| Whispering Pines    | \$31.28                  | \$35.83                   | 14.55%                      | \$33.32                             | 6.52 %                      |
| White Oak/Lee F.    | \$35.34                  | \$39.89                   | 12.87%                      | \$33.51                             | ( 5.18)%                    |
| Winston Plantation  | \$35.34                  | \$39.89                   | 12.87%                      | \$33.51                             | ( 5.18)%                    |
| Winston Pointe      | \$35.34                  | \$39.89                   | 12.87%                      | \$33.51                             | ( 5.18)%                    |
| Woodrun             | \$35.10                  | \$39.65                   | 12.96%                      | \$37.14                             | 5.81 %                      |
| Yorktown            | \$42.34                  | \$46.89                   | 10.75%                      | \$44.38                             | 4.82 %                      |
| Zemosa Acres        | \$43.37                  | \$47.92                   | 10.49%                      | \$45.41                             | 4.70 %                      |
| Fairfield Harbour   | \$20.44                  | \$26.97                   | 31.95%                      | \$24.81                             | 21.38 %                     |
| Bradfield Farms     | \$16.05                  | \$26.97                   | 68.04%                      | \$24.81                             | 54.58 %                     |

Average bill calculated using the average consumption of 3,980 gallons, based on all residential customers with 5/8 inch meter.

**SEWER OPERATIONS**

| <u>Service Area</u>           | <u>CWSNC<br/>Present</u> | <u>CWSNC<br/>Proposed</u> | <u>Percent<br/>Increase</u> | <u>Public Staff<br/>Recommended</u> | <u>Percent<br/>Increase</u> |
|-------------------------------|--------------------------|---------------------------|-----------------------------|-------------------------------------|-----------------------------|
| Uniform Flat                  | \$52.55                  | \$ 60.22                  | 14.60%                      | \$ 56.57                            | 7.65 %                      |
| Sapphire Valley               | \$35.52                  | \$ 60.22                  | 69.54%                      | \$ 56.57                            | 59.26 %                     |
| Nags Head                     | \$62.65                  | \$ 60.22                  | (3.88%)                     | \$ 56.57                            | ( 9.70)%                    |
| Connettee Falls               | \$49.92                  | \$ 59.93                  | 20.05%                      | \$ 56.60                            | 13.38 %                     |
| Uniform Rate                  | \$52.31                  | \$ 59.93                  | 14.57%                      | \$ 56.60                            | 8.20 %                      |
| White Oak Pl./<br>Lee Forest/ |                          |                           |                             |                                     |                             |
| Winston Pt.                   | \$49.47                  | \$ 54.42                  | 10.01%                      | \$ 53.22                            | 7.58 %                      |
| Kings Grant                   | \$46.90                  | \$ 51.85                  | 10.55%                      | \$ 49.73                            | 6.03 %                      |
| College Park                  | \$53.40                  | \$ 58.35                  | 9.27%                       | \$ 56.23                            | 5.30%                       |
| Mt. Carmel                    | \$54.19                  | \$ 65.73                  | 21.30%                      | \$ 63.61                            | 17.38 %                     |
| Fairfield Mountain            | \$86.67                  | \$108.37                  | 25.04%                      | \$106.25                            | 22.59 %                     |
| Carolina Trace                | \$64.04                  | \$ 59.93                  | (6.42)                      | \$ 56.60                            | (11.62)%                    |
| Fairfield Harbour             | \$37.89                  | \$ 42.83                  | 13.04%                      | \$ 41.40                            | 9.26 %                      |
| Bradfield Farms               | \$26.56                  | \$ 42.83                  | 61.26%                      | \$ 41.40                            | 55.87 %                     |
| Bulk Sewer                    | \$25.20                  | \$ 41.83                  | 65.99%                      | \$ 40.40                            | 60.32 %                     |

Average bill calculated using the average consumption of 3,417 gallons, based on all residential customers with 5/8 inch meter.



--/A

**STATE OF NORTH CAROLINA  
UTILITIES COMMISSION  
RALEIGH**

DOCKET NO. W-354, SUB 356

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of  
Application by Carolina Water Service, )  
Inc. of North Carolina, 4944 Parkway )  
Plaza Boulevard, Suite 375, Charlotte, )  
North Carolina 28217 for Authority to )  
Adjust and Increase Rates for Water )  
and Sewer Utility Service in All of Its )  
Service Areas in North Carolina, )  
Except Corolla Light and Monteray )  
Shores Service Area and Elk River )  
Development )

STIPULATION BETWEEN  
CAROLINA WATER SERVICE,  
INC. OF NORTH CAROLINA  
AND THE PUBLIC STAFF  
REGARDING COST OF  
CAPITAL AND CAPITAL  
STRUCTURE ISSUES

This agreement is made and entered into this 7th day of August, 2017, by and between Carolina Water Service, Inc. of North Carolina (CWSNC or Applicant) and the Public Staff - North Carolina Utilities Commission (Public Staff), (collectively, Stipulating Parties).

WHEREAS, on March 31, 2017, CWSNC filed an application to adjust and increase in its rates and charges for water and sewer utility service in all of its service areas in North Carolina except the Corolla Light/Monteray Shores service area and the Elk River Development.

WHEREAS, issues that have arisen between the Stipulating Parties concern the appropriate capital structure and cost rates on the components of the capital structure.

WHEREAS, the Stipulating Parties have determined that it is in their best interest to compromise their differences with respect to these issues and have

OFFICIAL COPY

Aug 07 2017

determined that they should enter into a Stipulation to present to the Commission for its consideration and approval.

NOW THEREFORE, based on the mutual promises contained herein, and other good and valuable consideration, the Stipulating Parties agree as follows:

1. The Stipulating Parties acknowledge that the Applicant's updated actual common equity ratio is 52.45%; however, the Stipulating Parties agree to the components of rate of return as set out below. The capitalization ratios reflect a hypothetical capital structure for Utilities, Inc., which is the parent company of CWSNC. The embedded cost of debt is Utilities, Inc.'s actual cost rate. The return on common equity is based on an estimate.

|                                     |        |
|-------------------------------------|--------|
| a. Long-Term Debt Ratio:            | 48.00% |
| b. Common Equity Ratio:             | 52.00% |
| c. Embedded Cost of Debt:           | 5.93%  |
| d. Return on Common Equity:         | 9.60%  |
| e. Overall Weighted Rate of Return: | 7.84%  |

2. The Stipulating Parties agree that the Public Staff will file testimony and exhibits in support of this Stipulation, that any testimony and exhibits filed by the Public Staff in support of the Stipulation may be introduced into evidence without objection, and the Applicant waives its right to cross-examine the Public Staff's witness on any pre-filed testimony and exhibits pertaining to cost of capital and capital structure or any other issues resolved as a result of this Stipulation.

3. In order to minimize recoverable rate case costs in this proceeding, CWSNC and the Public Staff agree that the Applicant's cost of capital expert consultant will not file testimony and exhibits in support of this Stipulation. However,

the Stipulating Parties further agree to include recovery of rate case costs incurred as of the date of this Stipulation associated with the Company's cost of capital consultant in the total amount of \$12,000 and to exclude from recovery in this case any additional rate case costs for a cost of capital consultant and/or witness; provided, however, that if the Commission or an Intervenor requests an opportunity to cross-examine CWSNC's cost of capital expert consultant at the evidentiary hearing, the reasonable costs incurred by the Company in conjunction with that appearance shall be recoverable as additional rate case costs in this proceeding.

4. The Stipulating Parties recognize and agree that this Stipulation, in settlement of the issues in the herein docket pertaining to cost of capital and capital structure, resulted from negotiations and compromise. Thus, the agreements reached do not necessarily reflect the respective Stipulating Parties' beliefs as to the proper treatment or level of the matters cited. Except as needed to carry out the terms of the Commission's Order in the herein docket, the Stipulating Parties have agreed that none of the positions, treatments, figures or other matters reflected herein shall have any precedential value, nor shall they otherwise be used in any subsequent proceedings, other than those referenced in this agreement, before this Commission or any other regulatory body as proof of the matter in issue.

IN WITNESS WHEREOF, the Stipulating Parties have hereunto set their hands and seals on the day and year first above written.

CONSENTED TO:  
CAROLINA WATER SERVICE, INC. OF  
NORTH CAROLINA

BY: J. Anne Sanford

CONSENTED TO:  
PUBLIC STAFF-NORTH CAROLINA  
UTILITIES COMMISSION

BY: Jim C. Helt

OFFICIAL COPY

Aug 07 2017

**CERTIFICATE OF SERVICE**

I hereby certify that on this the 7th day of August, 2017, a copy of the foregoing STIPULATION OF SETTLEMENT has been duly served upon all parties of record by electronic service, as follows:

Gina C. Holt, Staff Attorney  
Legal Division  
North Carolina Utilities Commission Public Staff  
[gina.holt@psncuc.nc.gov](mailto:gina.holt@psncuc.nc.gov)

William E. Grantmyre, Staff Attorney  
Legal Division  
North Carolina Utilities Commission Public Staff  
[william.grantmyre@psncuc.nc.gov](mailto:william.grantmyre@psncuc.nc.gov)

Dwight W. Allen  
Brady W. Allen  
Britton H. Allen  
The Allen Law Offices  
[dallen@theallenlawoffices.com](mailto:dallen@theallenlawoffices.com)  
[brady.allen@theallenlawoffices.com](mailto:brady.allen@theallenlawoffices.com)  
[bhallen@theallenlawoffices.com](mailto:bhallen@theallenlawoffices.com)

Paula Chappell  
NC DEQ Public Water Supply  
[paula.chappell@ncdenr.gov](mailto:paula.chappell@ncdenr.gov)

Bryce Mendenhall, Vice President of NC/TN  
CWSNC  
[bmendenhall@uiwater.com](mailto:bmendenhall@uiwater.com)

**s/Jo Anne Sanford**

State Bar # 6831  
SANFORD LAW OFFICE, PLLC  
Post Office Box 28085  
Raleigh, NC 27611-8085  
Tel: (919) 210-4900  
[sanford@sanfordlawoffice.com](mailto:sanford@sanfordlawoffice.com)

STATE OF NORTH CAROLINA  
UTILITIES COMMISSION  
RALEIGH

DOCKET NO. W-354, SUB 356

--1A  
\* PG 1 of 101 pages  
previously filed in docket  
OFFICIAL COPY

In the Matter of  
Application by Carolina Water Service, )  
Inc. of North Carolina, 5701 Westpark )  
Drive, Suite 101, Charlotte, North )  
Carolina 28217, for Authority to Adjust )  
and Increase Rates for Water and )  
Sewer Utility Service in All Service )  
Areas in North Carolina )

APPLICATION FOR  
A GENERAL INCREASE  
IN RATES

Mar 31 2017

**NOW COMES Carolina Water Service, Inc. of North Carolina ("CWSNC"**  
or "Company"), by and through counsel, and respectfully files this Application for  
a General Increase in Rates with the North Carolina Utilities Commission  
("Commission" or "NCUC"). In support of this Application, CWSNC represents:

1. CWSNC is a public utility operating in North Carolina engaged in the  
provision of water and sewer utility service to the public for compensation. The  
Company's business address is 5701 Westpark Drive, Suite 101, Charlotte,  
North Carolina 28217. The contact person for CWSNC in this matter is  
Richard Linneman at RLinneman@uiwater.com. CWSNC is a wholly-owned  
subsidiary of Utilities, Inc. ("UI").

2. CWSNC is an investor-owned public utility pursuant to G.S. 62-3,  
does business as a regulated water and sewer utility in North Carolina, and is  
subject to the regulatory oversight of this Commission.<sup>1</sup> The Company presently

<sup>1</sup> On April 22, 2016, CWSNC, Bradfield Farms Water Company (Bradfield Farms), Carolina Trace Utilities, Inc. (Carolina Trace), CWS Systems, Inc. (CWSS), Elk River Utilities, Inc. (Elk River), and Transylvania Utilities, Inc. (Transylvania) filed a Joint Application for Approval of Merger with the Commission in Docket No. W-354, Sub 350 requesting approval of the merger of Bradfield Farms, Carolina Trace, CWSS, Elk River, and Transylvania (all of which, like CWSNC, were wholly-owned

- --/A  
\*pg. 1 of 511 pgs  
previously filed  
in docket-

NCUC FORM W-1  
RATE CASE INFORMATION REPORT

OFFICIAL COPY

Mar 31 2017

1. In comparative form, a total company income statement, and a balance sheet for the test year and the 12-month period immediately preceding the test year.

**Response:** Please see enclosed W1-1

2. A trial balance as of the last day of the test year. All income statement accounts should show activity for twelve (12) months showing account number, account title, and amount. Clearly identify accounts maintained on a total company basis and accounts maintained on a jurisdictional basis (indicate jurisdiction). Show the balance in each control account and all underlying subaccounts per company books. Any differences between the amounts contained in this item and Item 1 should be reconciled and explained in sufficient detail.

**Response:** Please see enclosed W1-2. Trial balances for each rate entity is presented in the response to W1-10.

3. (a) The balances of long-term debt, preferred stock, and common equity capital for each month of the test year.

**Response:** The utility is a wholly owned subsidiary of Utilities, Inc. The capital structure used for ratemaking purposes is that of the parent. The utility itself has no capital structure. Please see the enclosed W1-3 for the capital structure showing the balances of long-term debt and common equity for each month of the test year. The utility has no preferred stock.

- (b) A calculation of the end-of-period long-term debt composite interest and preferred stock costs. Supporting details underlying calculations should be provided.

**Response:** The utility is a wholly owned subsidiary of Utilities, Inc. The capital structure used for ratemaking purposes is that of the parent. The utility itself has no capital structure. Please see the enclosed W1-3 for the capital structure at December 31, 2016 showing the balances of long-term debt and common equity. The utility has no preferred stock.

**Customer Count & Usage By Month**  
**Test Year: 2016**

[illegible]

Supplemental <sup>work paper</sup> NCE Form U-1 Item 24  
Response  
- - - / A  
\*pg 1 of 107 pgs previously  
aid in doct system



--A

OFFICIAL COPY

Aug 29 2017

STATE OF NORTH CAROLINA  
UTILITIES COMMISSION  
RALEIGH

DOCKET NO. W-354, SUB 356

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of  
Application by Carolina Water Service, )  
Inc. of North Carolina, 4944 Parkway )  
Plaza Boulevard, Suite 375, Charlotte, )  
North Carolina 28217, for Authority to )  
Adjust and Increase Rates for Water )  
and Sewer Utility Service in All of Its )  
Service Areas in North Carolina, Except )  
Corolla Light and Monteray Shores )  
Service Area and Elk River )  
Development )

**REPORT ON CUSTOMER  
COMMENTS FROM PUBLIC  
HEARINGS IN ASHEVILLE AND  
BOONE, NORTH CAROLINA,  
JULY 25-26, 2017**

**NOW COMES Carolina Water Service, Inc. of North Carolina ("CWSNC"**  
or "Company") and files this report in response to customer comments raised at  
the Asheville and Boone public hearings.

The first public hearing in this case was held on July 25, 2017, at 7:00 PM  
in the Buncombe County Courthouse, Asheville, North Carolina. Chairman  
Edward S. Finley, Jr. presided, joined by Commissioners ToNola D. Brown-Bland,  
Bryan E. Beatty, James G. Patterson, Lyons Gray, and Daniel G. Clodfelter. Staff  
Attorney Gina C. Holt appeared for the Public Staff on behalf of the using and  
consuming public, accompanied by Public Staff Water Engineer Gina Casselberry.  
Jo Anne Sanford of Sanford Law Office, PLLC appeared on behalf of CWSNC,  
joined by Matthew Klein, President of CWSNC. Other Company personnel,  
present and available to assist customers with questions or requests, included:  
Bryce Mendenhall, Vice-President of Operations; Tony Konsul, Regional Manager;

Gary Peacock, Area Manager; Rex Woody, Area Manager; Richard Lightle, Lead Operator; Richard Linneman, Financial Planning & Analysis Manager; and Anthony Gray, Senior Regulatory & Financial Analyst.

### **OVERVIEW OF THE PUBLIC HEARINGS**

Twenty-one (21) witnesses testified at the Asheville public hearing and one (1) witness testified in Boone. Each customer who testified expressed concern about the proposed percentage increase in rates. Several of the customers made positive comments about the level of service provided by CWSNC, the professionalism of Company personnel, and/or the quality of the water. However, customers variously raised issues about the level of service (including repairs), water quality, communications, and rate equity among different kinds of service providers.

The service quality issues were principally confined to three areas: (1) water main breaks; (2) delays in road-bed repairs; and (3) communications—including those relating to boil water notices, a sewage spill, and the rate increase. Other areas of customer focus included: the differential between reported “average” statewide rates for water and wastewater and the “average” for CWSNC; the move towards uniform rates; and the statutory standards that govern the Company's ability to recover in rates for increased investment in plant and in expenses of operation.

### **GENERAL RESPONSES TO CUSTOMER ISSUES**

In response to customer comments and concerns, CWSNC will address some important principles and facts that impact both the Company's service obligation and the rules that apply to the rate-setting process. The Company appreciates this opportunity to speak to its concerned customers and to its regulators.

1. Proposed Rates – The legal principles that govern ratemaking are set forth in North Carolina General Statutes, Chapter 62, and in rules promulgated under those statutes. By law, CWSNC receives a rate increase only if it proves, in the face of an investigation by the Public Staff (and any Intervenor opposition), that such an increase is authorized under the law, based on the actual cost and level of prudent and reasonable investment in plant and operation. Further, investment in plant is *only* recoverable after it has been made, placed into service, and audited by the Public Staff. This principle—referred to as the “used and useful” requirement—applies whether costs are recovered in a general rate case or under a system improvement charge.<sup>1</sup>
2. Investment in Replacing Aging Infrastructure – As documented by the U.S. Environmental Protection Agency (“EPA”) and the American Water Works Association (“AWWA”) a need exists for significant investment throughout North Carolina—more than \$20 billion—in replacing aging water and wastewater infrastructure, including drinking water pipes, wastewater collection pipes, and wastewater treatment facilities.<sup>2</sup>
3. Customer Communications:
  - A. Boil Water Notices – Boil water notices are only issued to the affected customers within a particular system. The boil water notice specifies the affected property, and for any single event it is possible that only a subset of the system's customers will receive such a notice.

<sup>1</sup> Also, known as the Water System Improvement Charge (WSIC) and the Sewer System Improvement Charge (SSIC).

<sup>2</sup> See, [http://portal.ncdenr.org/c/document\\_library/get\\_file?uuid=df1eeae-d14b-455d-9ad4-73b5d635f057&groupId=14655572](http://portal.ncdenr.org/c/document_library/get_file?uuid=df1eeae-d14b-455d-9ad4-73b5d635f057&groupId=14655572). See also, “Buried No Longer,” American Water Works Association (AWWA) - <http://www.awwa.org/Portals/0/files/legreg/documents/BuriedNoLonger.pdf>; Drinking Water Needs Assessment, U.S. Environmental Protection Agency - <https://www.epa.gov/sites/production/files/2015-07/documents/epa816r13006.pdf>; and Wastewater Needs Assessment, U.S. Environmental Protection Agency - <https://www.epa.gov/cwns/clean-watersheds-needs-survey-cwns-2012-report-and-data>.

- B. Legal Compliance – In a general rate case, the Public Notice to customers is prescribed by the requirements of statute and is issued by the Commission, based upon the input of CWSNC and the Public Staff. It is a joint effort to provide specific information to all customers about current and proposed rates. In a case like this—the first post-consolidation rate case for CWSNC—the length and complexity of the Public Notice serves the purpose of detail and transparency, yet is likely daunting to many customers who attempt to understand all its contents and the personal impact.
- C. Improvements. CWSNC has recently augmented its communications capacity and is working diligently on additional means to communicate with its customers. Emphasis will be on enhancing the ability to communicate electronically, in general, and through social media, in particular. The success of this approach will depend on the availability and accuracy of various modes of contact, and will thus be a function of customer permission and homeowners' association ("HOA") participation. Customers have very different preferences for how they communicate with the Company, and CWSNC is working to maximize the capacity of the various means of communication.
- D. Outreach to Customers. Company representatives spoke with customers at each public hearing. Additionally, and after the hearing, CWSNC addressed customer questions posed by the attorney for the Connestee Falls Property Owners Association ("CFPOA").
4. Rate Comparisons – An attempt to make general, but meaningful, comparisons between statewide average costs for all water and wastewater service providers and the costs of a provider like CWSNC often results in an "apples to oranges" assessment. The core distinction is found in the

concept of "economies of scale." The costs of serving an individual customer in Raleigh or Charlotte, by a governmental utility enterprise, will likely on average be less than the cost of serving the typical CWSNC customer. This is the case because, among other things, urban areas are densely populated, they generally source water from large surface impoundments or rivers, they treat waste in large central treatment facilities, governmental entities tax their citizens, and they are often not required to utilize "cost-of-service" ratemaking, as are the utilities regulated under Chapter 62 of the General Statutes. Contrast this to the areas served by CWSNC and others like it: often rural, less densely populated, generally not subject to city taxation, and frequently served by smaller waste treatment plants and by hundreds of wells, dispersed across the state and drawing water up from rock. The difference in cost attributes are obvious, and should inform any conversation about comparisons in respective average costs.

#### **SPECIFIC RESPONSES TO CUSTOMER TESTIMONY - ASHEVILLE**

**1. Michael Sanders, 488 Tsuganawvi Court, Brevard 28712, Connestee Falls subdivision. *Tr. Vol. 1, pp. 16-28***

Mr. Sanders expressed concern about the frequency of pipe failures and main breaks at Connestee Falls, the Company's response to a recent sewage spill into the lake, and communications about boil water notices.

#### **RESPONSE:**

- Investment. CWSNC has spent an estimated \$489,000 since 2009 on various water and sewer capital projects within the Connestee Falls subdivision. Much of the investment replaced approximately 2,040 feet of water main along Nodatsi Drive and approximately 5,000 feet of sewer force main along the lakes within Connestee Falls. Additional radiological

treatment was added to a well system and permitting plans are underway to replace the aging wastewater treatment plant, which is expected to be a significant capital project (since 2015, \$236,000 has been invested in engineering costs associated with the plant).

- Main and Service Line Breaks. Since January, 2016, CWSNC has experienced approximately thirteen (13) service interruptions in Conneestee Falls, one of which was due to ordinary maintenance. Water main breaks are inevitable for various reasons, including aged infrastructure and a failure, upon initial installation by a developer, to properly bed the pipe. Both the Company and customers are dependent upon the integrity of the initial installations, which were generally not performed by CWSNC. CWSNC apologizes for these service interruptions and assures its customers and the Commission that the Company has taken, and will continue to take, all reasonable and necessary steps to address and satisfactorily resolve all service-related problems, including the breaks, as expeditiously and efficiently as possible. Specifically, the Company is tracking line breaks and has a replacement plan in place to address the vulnerable sections of the existing water main.

In all of these instances, boil water notices were issued by use of the automated "Voice Reach" system, which delivers a voice message to the customer. Two of those main breaks occurred back-to-back, so, in those cases, only the initial advisory was issued and rescinded. In two others, the customers' doors were tagged by CWSNC personnel, since the breaks only affected a small number of customers.

- Unintended Sewage Spill into Lake Atagahi. CWSNC recently experienced two "sanitary sewer overflows" ("SSOs"), which were on June 15, 2017, and July 7, 2017. These SSOs were due to lightning strikes at the lift station and resulted in Lake Atagahi being closed for recreation purposes from

Friday, June 16, 2017, to Tuesday, June 20, 2017. CWSNC pulled samples and tested the water on Friday, June 16, 2017, at which time the coliform levels were elevated. The CFPOA tested the water on Monday, June 19, 2017, and determined that the levels were acceptable, thus allowing Lake Atagahi to re-open the next day. The SSOs were also reported to the North Carolina Department of Environmental Quality ("DEQ"), as required.

- Complaint about Having to Pay for Testing. As indicated above, CWSNC sampled Lake Atagahi at its expense. The Company also understands that the CFPOA samples and tests Lake Atagahi water on a weekly basis to monitor its suitability for recreation purposes. Thus, the Company is unclear why the CFPOA would have necessarily experienced increased costs due to the SSO incident, under the circumstances described, but apologizes if that was the case. The Company is willing in good faith to reimburse the CFPOA for the cost of this test and will contact the CFPOA representative to discuss such payment.
- Poor Communication About Boil Water Notices. *Attachment 1* is an example of the boil water advisories that were issued by CWSNC to Conneestee Falls customers in conjunction with each line break. It should be reiterated that only the customers affected by a break are notified. The boil water advisories state the specific streets (i.e., customers) that were affected. These notices are delivered by the Voice Reach system, after any break that necessitates the alert. On a going-forward basis, CWSNC will request that customers provide the Company with their best telephone and e-mail contact information, to assist in the event of future boil water advisories. Receipt of proper customer contact information facilitates proper and prompt delivery of the required customer communication.

**2. Carl Burkhart, 135 Kanasdatsi Drive, Brevard 28712, Connestee Falls subdivision. *Tr. Vol. 1, pp. 28-32***

Mr. Burkhart was concerned about the communication of boil water advisories. He also complained of the difficulty in understanding the notices associated with the rate case.

**RESPONSE:** First, please see the references in the General Response and elsewhere concerning communication of boil water notices. Second, as indicated in the introductory paragraphs, the rate case notices reflect the best efforts of the Company, Public Staff, and Commission to provide transparency and adequate detail to customers about the requested rate increases. In this case, the notice is a lengthy document, principally because it addresses the entire statewide footprint of CWSNC's 140 systems, scattered from Murphy to Corolla. CWSNC is working to improve its communications capacity and plans to expand and target communications with customers via e-mail and social media, through HOAs, and in other ways. Customers and HOAs will be asked to assist by providing and updating the various modes of contact.

**3. Susan Kish, 36 Sakkoleeta Court, Brevard 28712, Connestee Falls subdivision. *Tr. Vol. 1, pp. 32-37***

Ms. Kish complained of poor communications in the aftermath of the sewage spill into the lake, and repeated concerns about the communication of boil water notices.

**RESPONSE:** As indicated, the boil water notices are communicated by Voice Reach when possible and by door-hangers where necessary. They are augmented by attempts to reach key members of the community, HOA contacts, etc. For an example of the Company's communication outreach after the spill, please see *Attachment 2*, an e-mail from Tony Konsul to Sharon Jenkins of the CFPOA.



**4. Phil Reitano, 135 Hawks Nest Trail, Lake Lure 28746, Fairfield Mountain Valley subdivision. *Tr. Vol. 1, pp. 32-40***

Mr. Reitano objects to the frequency and amount of the rate increases, and spoke to his general concern about communications.

**RESPONSE:** CWSNC does not and should not receive rate increases unless it proves its case—by presentation of evidence, subject to the law, and against the skilled opposition of the Public Staff. However, rate increases are necessary to support prudent investment in this capital-intensive industry. The communications issues have been previously discussed and addressed.

**5. Jim Hemphill, 108 Woodhaven Drive, Flat Rock 28731, Woodhaven subdivision. *Tr. Vol. 1, pp. 40-47***

Mr. Hemphill spoke to his concerns about the frequency and amount of rate increases.

**RESPONSE:** These issues have been previously discussed and addressed.

**6. Jack Zinselmeier, 157 Bluebird Road, Lake Lure 28746, Fairfield Mountains subdivision. *Tr. Vol. 1, pp. 47-53***

Mr. Zinselmeier complained of delayed responses to road bed repairs, on two separate instances.

**RESPONSE:** CWSNC experienced a water main break in November 2016 that occurred from a sudden hydrant closing by the fire department while it battled a wildfire in the community. A road repair was necessitated by that break and delays in repair were caused by multiple factors. First, the resort was actually evacuated on November 11, 2016, due to the wildfire. Second, the asphalt plant was closed from December 5 through December 23, 2016, because of cold weather. The road repair was made on December 26, 2016, three days after the plant reopened.

On April 27, 2017, there was another road repair event, at 197 O'Brien Road. A water main leak occurred and was repaired the same day. However, the asphalt

company experienced a scheduling delay in getting the road patched, which pushed road repair completion to June 12, 2017.

**7. John Jennings, 129 McIntosh Circle, Lake Lure 28746, Apple Valley subdivision. *Tr. Vol. 1, pp. 53-54***

Mr. Jennings' primary issue was rates.

**RESPONSE:** Issues about rates are the subject of proof to and decision by the Commission, and not addressed within this Report. However, as part of its effort to ensure safe and reliable service to Apple Valley, CWSNC notes it replaced approximately 4,080 feet of 8-inch water main in 2017, including fire hydrants and service lines, within this subdivision.

**8. Allen Higgins, 210 Winter Star Loop, Burnsville 28714, Mount Mitchell Lands subdivision. *Tr. Vol. 1, pp. 54-59***

Mr. Higgins expressed concern about uniform rates and about the rate increases generally.

**RESPONSE:** Mr. Higgins lives within the Mt. Mitchell subdivision in an area that previously experienced water main issues. The water main that serves this customer was replaced in 2013, when approximately one (1) mile of PVC was replaced with ductile iron. No problems have been experienced since that time. The move toward uniform rates will allow such investments to be shared across a larger body of ratepayers, thereby minimizing the rate impact to any one community of the costs of significant repairs—costs which can be extremely burdensome to any one system, especially to a small system. It is important to realize that sooner or later all infrastructure must be repaired or replaced.

**9. Jack Barton, 108 Thrush Court, Lake Lure 28746, Rumbling Bald subdivision. *Tr. Vol. 1, pp. 59-61***

Mr. Barton expressed concern about the rate structure, which he contends contains an inordinately high fixed-charge component.

**RESPONSE:** Mr. Barton and his neighbors live in a community which has full-time and seasonal residents, both in significant numbers. Ratemaking methodology is always a balance between competing interests, including the proper allocation of charges between the fixed costs of plant and the variable costs associated with usage. Recognizing the arguments "go both ways," CWSNC's response to its customers is that, in fairness, part-time occupants should help provide appropriate stable support for the total costs of a "year-round plant." Balanced reliance for necessary cost recovery between base or "fixed" charges and volumetric charges is particularly appropriate for seasonal systems and fair to both the seasonal and the year-round customers, in the Company's view.

**10. Margaretta Lang, 358 Big Ridge Road, Burnsville 28714, Mount Mitchell Lands subdivision. Tr. Vol. 1, pp. 61-62**

Ms. Lang complained of boil water notices, and of the breaks that led to them.

**RESPONSE:** CWSNC experienced one water main break in 2017 which resulted in a boil water advisory that would have affected Ms. Lang. The break, which occurred on July 13, 2017, was repaired on the same day; both the boil water and rescind notices are appended as *Attachment 3*.

**11. Warren Grafer, 934 South Toe River Road, Burnsville 28714, Mount Mitchell Lands subdivision. Tr. Vol. 1, pp. 62-66**

Mr. Grafer believed that a comparison of average statewide water and wastewater rates to CWSNC's higher average rates signified unfairness to CWSNC's customers.

**RESPONSE:** Please see the general introductory comments to understand CWSNC's position regarding why these comparisons must be made in the context of the differences in the costs to serve various customers. It is important to CWSNC for customers to understand these significant differences in *actual costs*

and that only the actual, proven costs are the drivers of rates in cases before the Commission.

**12. Donn Levine, 100 Big Ridge Court, Burnsville 28714, Mount Mitchell Lands subdivision. *Tr. Vol. 1, pp. 66-71***

Mr. Levine raised several concerns, including: (1) a concern about inadequate water pressure and objection to paying for his own "booster" pump; (2) concern about a five-day gap prior to receiving notice that he should boil water, followed by a notice that he did not have to boil water, due to his elevation; (3) poor communications; and (4) the frequency of water main breaks.

**RESPONSE:** First, regarding water pressure, Mr. Levine's water pressure was checked at the meter box on August 11, 2011, and registered 35 psi, which meets state requirements. The home elevation is located considerably higher up the mountain from the meter box, which would naturally result in lower pressure within the home. CWSNC is meeting pressure requirements. Homeowners at higher elevations, such as Mr. Levine, often elect to install booster pumps to enjoy higher pressure at their chosen home site. Second, regarding communications, there is some confusion about the boil water notices. A boil water advisory was issued by Voice Reach on July 13, 2017, and was rescinded on July 18, 2017, after sampling and testing for coliform. (*See Attachment 3*). CWSNC is unaware of any communication from the Company to the effect that locations at higher elevations would avoid the requirement of boiling water after a water main break. Third, CWSNC mainly communicates boil water notices directly to customers via its automated Voice Reach system; thus, it depends on accurate contact information plus the assistance of HOAs and community leaders, to help share the news. Finally, regarding water main breaks, leaks and service line breaks are inevitable and can be attributed both to aging infrastructure and to water mains that may have not been initially bedded/or installed properly by developers. CWSNC tracks the leaks and breaks and replaces water mains as needed. An example of such

investment is found in the water main that was replaced on Winter Star Loop, noted above in the response to Mr. Higgins' testimony.

**13. Richard Adams, 57 Signature Ln, Burnsville 28714, Mount Mitchell Lands subdivision. *Tr. Vol. 1, pp. 76-83***

Mr. Adams, president of the Mount Mitchell Lands subdivision HOA, spoke to the widely-held concern that the differential in statewide average rates and the rates of CWSNC means "...There's something wrong." *Tr. Vol. 1, p. 73, l.17* He also expressed concern about the repetitive requests for rate increases which are based on new additions or repairs to plant.

**RESPONSE:** These concerns go to the fundamental perceptions of equity—or the suspicion of inequity—in the regulatory ratemaking process. Though they are not, strictly speaking, "service" concerns, in the narrow meaning of that term, they are critical to the customers' view of and trust in the process whereby his or her rates are set.

As indicated above, many differences in actual cost of service can impact rates for urban and rural systems, including such factors as population density, economies of scale, and the efficiencies found in large central water sources and wastewater treatment facilities. Additionally, the water and wastewater industries are extremely capital intensive, requiring constant and ongoing additions, replacement, and repair to plant. The core protection for Mr. Adams and other customers is found in the fact that CWSNC is subject to "cost of service" ratemaking. Basically, the Company **cannot** lawfully recover in tarified rates on investment or for expenditures unless it meets a burden of proof to show that it prudently invested as necessary to provide proper service to its North Carolina customers. And it cannot recover on any investment in plant until that plant is in service to customers and audited by the Public Staff. These decisions about allowable return on investment are solely North Carolina-based decisions, and any

financial outcome for CWSNC's owner is merely a byproduct of the Commission's decision on the North Carolina-specific portion of that operation.

CWSNC appreciates Mr. Adams' reference to the assistance provided by the Company in 2014 when the bridge to the subdivision was replaced. CWSNC removed its water main from the bridge during construction, installed generators, and donated money to assist with landscaping at the subdivision entrance. This is an extension of service to customers that the Company was pleased to provide.

**14. Vernon McMinn, 100 Udvawadulisi Court, Brevard 28712, Connestee Falls subdivision. *Tr. Vol. 1, pp. 77-83***

Mr. McMinn was concerned that he could not reconcile his calculation of his bill to the numbers shown on the rate case notice, and he complained of the delay in fixing the road at Connestee Falls.

**RESPONSE:** CWSNC is always willing to speak with customers such as Mr. McMinn regarding any questions they may have regarding billing calculations and/or concerns, including rate case notice issues.

**15. James T. Cain, 112 Mountains Boulevard, Lake Lure 28746, Fairfield Mountains subdivision. *Tr. Vol. 1, pp. 83-85***

Mr. Cain spoke to the two-fold impact of the rate increase, both on residential customers with respect to their own bills, and to those customers' financial support of the common facilities, such as clubhouses.

**RESPONSE:** The Company's response about the rate increase is contained elsewhere in this filing.

**16. Dennis Shellenberger, 441 Mountains Boulevard, Lake Lure 28746, Fairfield Mountains subdivision. *Tr. Vol. 1, pp. 86-88***

Mr. Shellenberger commented that the CWSNC rates compare unfavorably to the rates he paid in Florida.

**RESPONSE:** Rates charged by CWSNC must be based on cost of service, and must be justified by proof and over the opposition of the Public Staff in a contested

case. Certain other types of water and wastewater service providers are not required to observe "cost of service" ratemaking. However, if one assumes that prices follow costs with these other providers, then the conclusion would be that their costs of service are simply lower.

**17. Jerard Worster, 107 Friendly Lane, Asheville 28806, Mt. Carmel subdivision. *Tr. Vol. 1, pp. 88-93***

Mr. Worster expressed concerns about the size and frequency of the rate increase requests, and he asks for a better, clearer explanation of the actual reasons for the rate increase requests.

**RESPONSE:** Responses to these concerns about rates and communications are contained earlier within this document.

**18. Tom Haynes, 107 Woodhaven Drive, Flat Rock 28731, Woodhaven subdivision. *Tr. Vol. 1, pp. 93-96***

Mr. Haynes noted his appreciation for the water and service quality provided by CWSNC (*Tr. Vol. 1 p. 94, l. 5-7*), but expressed concern about the size and frequency of rate increase requests.

**RESPONSE:** Recent investments by CWSNC within this subdivision include replacement of the hydropneumatic tank located at the well house and installation of a stationary generator at the well, which will automatically start in the event of a power outage.

**19. Sean O'Meara, 115 Woodhaven Drive, Flat Rock 28731, Woodhaven subdivision (*Tr. Vol. 1, pp. 96-99*); and**

**20. Chuck Van Rens, 109 Woodhaven Drive, Flat Rock 28731, Woodhaven subdivision. *Tr. Vol. 1, pp. 99-106***

Both Mr. O'Meara and Mr. Van Rens objected to the amount and frequency of rate increase requests.

**RESPONSE:** As indicated, CWSNC's rates will be set based upon the statutory requirements of proof and after challenge by expert consumer advocates. No

utility is entitled to a rate increase unless it has proved to the Commission essentially that it spent money—only as necessary, or “prudently”—to provide the service that is required. And CWSNC cannot recover on its investment in plant until after that plant is in use, providing service to customers, has been reviewed by the Public Staff, and approved by the Commission. This is true whether the rate increase is sought in a general rate case, like this one, or under the “system improvement charges” (also known as WSIC and SSIC).

**21. Betty Jackson, 214 Scottlyn Drive, Asheville 28806, Mt. Carmel subdivision. *Tr. Vol. 1, pp. 106-109***

Ms. Jackson complains of difficulty in understanding the rate request notice, and asserts that communications are generally not satisfactory. She also requested a rate that addressed use of water for irrigation.

**RESPONSE:** As described above, CWSNC is growing its ability to provide customers with timely, understandable notice about a range of topics. The Company is always open and willing to speak with customers such as Ms. Jackson regarding any questions they may have regarding billing calculations and/or service concerns, including rate case notice and rate design issues.

**SPECIFIC RESPONSE TO CUSTOMER TESTIMONY - BOONE**

The second public hearing in this case was held on July 26, 2017, at 7:00 PM at the Watauga County Courthouse in Boone, North Carolina. Commissioner Bryan E. Beatty presided, joined by Commissioners ToNola D. Brown-Bland, Jerry C. Dockham, James G. Patterson, Lyons Gray, and Daniel G. Clodfelter. Staff Attorney Gina C. Holt appeared for the Public Staff on behalf of the using and consuming public, accompanied by Public Staff Water Engineer Gina Casselberry. Jo Anne Sanford of Sanford Law Office, PLLC appeared on behalf of CWSNC, joined by Matthew Klein, President of CWSNC. Other



Company personnel, present and available to assist customers with questions or requests, included: Bryce Mendenhall, Vice-President of Operations; Tony Konsul, Regional Manager; Rex Woody, Area Manager; Richard Linneman, Financial Planning & Analysis Manager; and Anthony Gray, Senior Regulatory & Financial Analyst.

One public witness testified in Boone. (*Tr. Vol. 2, p. 10*) Mr. Howell Sharpe of 1954 Sugar Mountain Drive, Sugar Mountain subdivision, had no complaints with the water service. He did, however, express concern about the amount and frequency of the rate increases, comparing them unfavorably to his experience in Atlanta.

**RESPONSE:** CWSNC has addressed the rate increase concerns earlier in the document and, to avoid duplication, will respectfully offer those comments in response to Mr. Sharpe.

Respectfully submitted, this the 29th day of August, 2017.

SANFORD LAW OFFICE, PLLC

**Electronically Submitted**

**/s/Jo Anne Sanford**  
State Bar No. 6831  
Post Office Box 28085  
Raleigh, North Carolina 27611  
T: 919-210-4900  
e-mail: [sanford@sanfordlawoffice.com](mailto:sanford@sanfordlawoffice.com)

ATTORNEY FOR CAROLINA WATER SERVICE, INC.  
OF NORTH CAROLINA

6/30/17

188100-063017 Connetsee Falls Sub 430 BWA

Customers: (27) IYA CT, DALONIGEI CT, UWOHALI CT (See addresses below)

ID NO. 01-88-104

**System Pressure Advisory!**

Hello

This is a courtesy call from your local water provider for Connetsee Falls subdivision.

Customers may experience periods of low pressure and/or outages in the distribution system due to an emergency repair. Periods of low or no pressure in the distribution system increases the potential for back siphonage and introduction of bacteria into the water system.

No problem has been detected in the water; however, as a precautionary measure, the Division of Water Resources advises that when water is restored consumers **boil all water** used for human consumption (including drinking, making ice, brushing teeth, washing dishes and food preparation) or use bottled water. The NC Division of Water Resources Public Water Supply Section Asheville Regional Office contact phone number is 828-296-4500.

Vigorous boiling for one (1) minute should kill any disease-causing organisms that may be present in the water.

This office is strongly urging the water consumers to conserve water whenever possible. Customers will be notified by a second phone notification message once the Boil Advisory has been rescinded.

This was a courtesy call from your local water provider. We apologize for any inconvenience this may cause and appreciate your patience. If you should have any questions or concerns, please contact our Customer Service Department at 1-800-525-7990, again that number is 1-800-525-7990.

Thank you very much

This advisory issued on 6/30/17 by:

Transylvania Utilities, Inc.  
Transylvania

800-525-7990

and/or

Public Water Supply Section  
Division of Water Resources  
Asheville Regional Office  
828-296-4500

63 IYA CT

37 IYA CT

137 DALONIGEI CT

15 UWOHALI CT

57 UWOHALI CT

76 UWOHALI CT

64 UWOHALI CT

69 UWOHALI CT

58 UWOHALI CT

58 UWOHALI CT

4 UWOHALI CT

20 UWOHALI CT

35 DALONIGEI CT

55 DALONIGEI CT

69 DALONIGEI CT

83 DALONIGEI CT

95 DALONIGEI CT

121 DALONIGEI CT

163 DALONIGEI CT

164 DALONIGEI CT

82 DALONIGEI CT

50 DALONIGEI CT

22 DALONIGEI CT

11 IYA CT

45 IYA CT

59 IYA CT

56 IYA CT

**From:** Tony Konsul [mailto:TJKonsul@uiwater.com]  
**Sent:** Wednesday, June 21, 2017 8:16 AM  
**To:** CFPOA <cfpoa@comporium.net>  
**Subject:** RE: Sewer Leak in Lake Atagahi

Sharon,  
Please see the below responses. Let me know if you need more info.

**From:** CFPOA [mailto:cfpoa@comporium.net]  
**Sent:** Tuesday, June 20, 2017 12:57 PM  
**To:** Tony Konsul <TJKonsul@uiwater.com>  
**Subject:** Sewer Leak in Lake Atagahi

Good afternoon!

Hate to bother you with this but could you answer the below questions for me? These are just a few questions we have been getting from members.

How did this happen?**[Tony Konsul]** Lightening hit the controls that operate the pumps  
How much sewage entered the lake?**[Tony Konsul]** Approximately 950 gallons.  
What remediation actions are being taken?**[Tony Konsul]** An electrician was called and repairs were made the same day. Three different pumper trucks companies were called. A pumper truck was on site to stop the overflow at approximately 1:00pm.  
What kinds of data are being collected to determine the status of the lake and quality of the water?**[Tony Konsul]** Coliforms samples are being collected from the lake.  
What actions will be taken to prevent future occurrences such as this?**[Tony Konsul]** Since this was a lightning strike, it is very difficult to prevent acts of God.  
Why didn't the Utility Company call owners about the sewer leak; especially the ones living around Lake Atagahi?**[Tony Konsul]** We notified the POA in hopes they would help us to communicate to those residents as we have done in the past. We really do not know which residents live on or around the lake.

There is a Board meeting tomorrow and I'm going to get tarred and feather if I can't come up with some kind of decent responses.

p.s. Could I possibly get a copy of whatever report you have to file with the State in situations like this?

Thanks bunches!

ATTACHMENT 2  
W-354 Sub 356, Response to Customer Concerns  
Asheville & Boone

*Sharon*

Sharon Jenkins, Administrative Manager  
Connestee Falls Property Owners Association, Inc.  
33 Connestee Trail, Brevard, NC 28712  
828-885-2001, 800-537-2001  
[www.connesteefalls.com](http://www.connesteefalls.com)



OFFICIAL COPY

Aug 29 2017

182147-071317 Mt. Mitchell Sub 275 Leak Repair and Boil Advisory

Hello.

This is a courtesy call from your local water provider for the Mount Mitchell Subdivision.

Customers may experience periods of low pressure and/or outages in the distribution system due to an emergency repair being performed in your area. Periods of low or no pressure in the distribution system increases the potential for back siphonage and introduction of bacteria into the water system.

No problem has been detected in the water; however, as a precautionary measure, the Division of Water Resources advises that when water is restored consumers **boil all water** used for human consumption (including drinking, making ice, brushing teeth, washing dishes and food preparation). As an alternative, bottled water may be used. The NC Division of Water Resources, Public Water Supply Section, Asheville Regional Office contact phone number is (828) 296-4500.

Vigorous boiling for one (1) minute should kill any disease-causing organisms that may be present in the water.

This office is strongly urging the water consumers to conserve water whenever possible. Customers will be notified by a second phone notification message once the Boil Advisory has been rescinded which typically takes 24 to 48 hours.

This was a courtesy call from Carolina Water Service. We apologize for any inconvenience this may cause and appreciate your patience. If you should have any questions or concerns, please contact our Customer Service Department at 1-800-525-7990, once again that number is 1-800-525-7990.

Thank you

7/18/17  
182147-071817 Mt Mitchell 275 Boil Advisory Rescind  
211 Customers

ID Number 01-00-103

Hello.

This is a courtesy call from Carolina Water Service, your local water provider for the Mt. Mitchell subdivision at 1-800-525-7990. This number will be repeated at the end of this message.

Please be advised that the Boil Advisory in which you were previously notified of has been rescinded. It is no longer necessary for customers to boil water before drinking, cooking, washing dishes or food preparation. Again, the boil advisory has been rescinded. It is no longer necessary for customers to boil water before drinking.

This was a courtesy call from Carolina Water Service, your local water provider. We apologize for any inconvenience this may have caused and appreciate your patience. If you should you have any questions or concerns, please contact our Customer Service Department at 1-800-525-7990, again that number is 1-800-525-7990.

Thank you.

This advisory issued on 7/18/17 by:

Carolina Water Service Inc. of North Carolina  
Yancy County  
800-525-7990 and/or

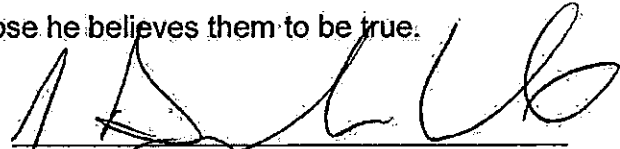
Public Water Supply Section  
Division of Water Resources  
Asheville Regional Office  
(828) 296-4500



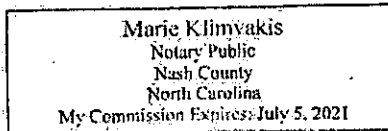
VERIFICATION


Bryce J. Mendenhall, being duly sworn, deposes and says:

That he is the Vice President of Operations for Carolina Water Service, Inc. of North Carolina; that he is familiar with the facts set out in this **REPORT ON CUSTOMER COMMENTS FROM PUBLIC HEARINGS IN ASHEVILLE AND BOONE, NORTH CAROLINA, JULY 25-26, 2017**, filed in Docket No. W-354, Sub 356; that he has read the foregoing Report and knows the contents thereof; and that the same is true of his knowledge except as to those matters stated therein on information and belief, and as to those he believes them to be true.

  
Bryce Mendenhall

Sworn to and subscribed before me this  
the 29<sup>th</sup> day of August, 2017.



  
Notary Public

My commission expires: July 5, 2021

**CERTIFICATE OF SERVICE**

I hereby certify that on this the 29th day of August, 2017, a copy of the foregoing REPORT has been duly served upon all parties of record by electronic service, as follows:

Gina C. Holt  
Staff Attorney, Legal Division  
North Carolina Utilities Commission - Public Staff  
gina.holt@psncuc.nc.gov

William E. Grantmyre  
Staff Attorney, Legal Division  
North Carolina Utilities Commission - Public Staff  
william.grantmyre@psncuc.nc.gov

Dwight W. Allen  
Britton H. Allen  
Brady W. Allen  
The Allen Law Offices  
dallen@theallenlawoffices.com  
bhallen@theallenlawoffices.com  
brady.allen@theallenlawoffices.com

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

--/A

OFFICIAL COPY

Sep 11 2017

STATE OF NORTH CAROLINA  
UTILITIES COMMISSION  
RALEIGH

DOCKET NO. W-354, SUB 356

|   |   |                        |
|---|---|------------------------|
| In the Matter of                        | ) |                        |
| Application by Carolina Water Service,  | ) |                        |
| Inc. of North Carolina, 4944 Parkway    | ) | REPORT ON CUSTOMER     |
| Plaza Boulevard, Suite 375, Charlotte,  | ) | COMMENTS FROM PUBLIC   |
| North Carolina 28217, for Authority to  | ) | HEARINGS IN CHARLOTTE  |
| Adjust and Increase Rates for Water     | ) | AND NEW BERN, NORTH    |
| and Sewer Utility Service in All of Its | ) | CAROLINA HELD ON       |
| Service Areas in North Carolina,        | ) | AUGUST 1 AND 22, 2017, |
| Except Corolla Light and Monteray       | ) | RESPECTIVELY           |
| Shores Service Area and Elk River       | ) |                        |
| Development                             | ) |                        |

**NOW COMES** Carolina Water Service, Inc. of North Carolina ("CWSNC" or "Company") and files this report in response to customer comments raised in testimony at the public hearings in Charlotte and New Bern, North Carolina.

**CHARLOTTE PUBLIC HEARING**

A public hearing was held beginning at 7:00 p.m., on August 1, 2017, in Charlotte, North Carolina, at the Mecklenburg County Courthouse. Commissioner Brian E. Beatty, who served as the Presiding Commissioner, was joined by Commissioners ToNola D. Brown-Bland, James G. Patterson, Jerry C. Dockham, and Lyons Gray. Staff Attorney Gina C. Holt appeared for the Public Staff on behalf of the using and consuming public, accompanied by Public Staff Water Engineer Lindsay Quant. Robert H. Bennink, Jr., of the Bennink Law Office, appeared on behalf of CWSNC, accompanied by Matthew Klein the Company's

President; Bryce Mendenhall, CWSNC's Vice President of Operations; Tony Konsul, Regional Manager; and Mark Haver and Jack Jones, Area Managers.

A total of four witnesses testified at the Charlotte public hearing. All four witnesses reside in CWSNC's Bradfield Farms service area. Those four witnesses—William R. Colyer, Damian Michael Werner, Isaac Cochran, and Chanyne Cupil—testified primarily in opposition to the magnitude and impact of the proposed rate increase.

The witnesses generally voiced no current or ongoing service quality complaints which personally affect their respective utility service. Regarding the Company's quality of service, witness Colyer testified that:

"...the folks from Utilities, Inc....have continued to provide an excellent level of service to Bradfield Farms...I mean, they're in my speed dial, and if there's a problem they are quick to respond, and we do appreciate that."

Regarding service quality, witness Cupil testified that she and her husband experienced one service-related problem in the eight years that they have been living in the community. The problem was related to a sewage backup which, although unpleasant, was resolved by the Company.

Witness Werner, who, when asked whether he had experienced any service-related problems, replied:

"I have not, but I know that we have had some issues lately with sewage backing up and so forth. Those were not affecting my house, but I've heard about it throughout the neighborhood. But, no, my service has been good. And I do -- like I said, I mean, my interactions with the Company have been okay, but I just can't see the justification for that kind of an increase."

**CWSNC's SPECIFIC RESPONSE TO CUSTOMER TESTIMONY:** Two of the four customers from the Company's Bradfield Farms service area spoke to service quality issues.

First, witness Cupil testified that she and her husband have experienced only one service-related problem in the eight years that they have been living in the community and that their issue was satisfactorily resolved. The Company appreciates Ms. Cupil's testimony in this regard.

Second, witness Werner testified that he has not personally experienced any service-related problems with the utility service provided to him by CWSNC. The Company also appreciates Mr. Werner's testimony in this regard. In response to witness Werner's additional testimony that he has heard that other customers in his neighborhood have recently experienced problems related to sewage backups, CWSNC offers the following response:

CWSNC has searched its records regarding sewage backups which occurred close in time to witness Werner's testimony on August 1, 2017. The closest event in point of time occurred on June 2, 2017, at 7:30 a.m. at 7221 Maitland Court. This sewage backup caused flooding in the home at that address. Upon investigation, Company personnel found a backup at Maitland Court and Jardin Way. This event was caused by asphalt, rocks, and brick which were found in the manhole. A contractor (not affiliated with the Company) had repaved streets in the neighborhood prior to this backup. CWSNC contacted its insurance company and directed the insurer to take care of the affected customer;

ensure that any damage to the customer's property was corrected; and then seek recompense from the contractor. Follow-up conversations with the affected homeowner indicated that all issues had been satisfactorily resolved. The Company's insurance carrier is now seeking damages against the contractor. There have been no further complaints from the affected customer.

Company records indicate that there were no other backup events during 2017, which occurred at Bradfield Farms prior to the August 1, 2017 public hearing. During 2016, there was one event which occurred on May 25, 2016. Company personnel cleaned the main and found lots of "wipes" which caused this blockage. The blockage caused a sanitary sewer overflow of approximately 600 gallons which did not reach any surface waters, just a dry ditch. The overflow did not impact any homes.

For purposes of full disclosure, the Company also experienced a sewage backup after the public hearing at two manholes, located at 11204 Clayford Ridge Road and 7006 Daerwood Place, on August 26, 2017, at 7:51 p.m. This event was caused by a cable that was bored through the sewer pipe by contractors for AT&T. Approximately 750 gallons of sewage spilled into a drainage ditch. The sewage did not reach any surface water; nor did the overflow impact any homes. A permanent repair was completed on Monday, August 28, 2017.

To evaluate the integrity of the Bradfield Farms sewage collection system so as to minimize the chances for future backup problems, CWSNC contracted with a company (RedZone) to initiate a project which consists of using robotics

technology to internally examine the integrity of the Company's sewer collection pipe systems. The Bradfield Farms project, which began on September 6, 2017, will examine the integrity of the entire sewage collection system. The outcome of the project allows CWSNC to identify specific points in the sewage collection system which are in need of repair, rather than the Company having to undertake an unnecessary and expensive whole-system replacement. In particular, the project concentrates on pipe integrity, possible pipe damage, root intrusion, potential or actual blockages, and identifying sources of inflow and infiltration ("I&I").

Third, witness Colyer described the quality of CWSNC's utility service as "excellent" and he further stated that the Company is "quick to respond" to problems. The Company thanks Mr. Colyer for this testimony.

Finally, witness Cochran mentioned no problems with the quality of utility service provided by CWSNC during his testimony. He testified against the level of the proposed water and sewer rate increases, and spoke of a conflict which prevented many of his neighbors from attending the hearing.

Not surprisingly, customer testimony from witnesses Colyer, Werner, Cochran, and Cupil focused primarily on opposition to CWSNC's proposed rate increase, which is one of the primary issues to be decided by the Commission based upon careful consideration of all the evidence offered in this proceeding, including customer testimony. CWSNC's rates will be set in this legal proceeding by the Commission based upon the statutory requirements of proof and after

challenge by expert consumer advocates. No utility, including CWSNC, is entitled to a rate increase unless it has proved to the Commission essentially that it spent money—only as necessary, or “prudently”—to provide the service that is required. And CWSNC cannot recover on its investment in plant until after that plant is in use, providing service to customers, has been reviewed by the Public Staff, and is approved by the Commission. This is true whether the rate increase is sought in a general rate case, like this one, or under the “system improvement charges” (also known as WSIC and SSIC).

CWSNC concedes that the Company does not and should not receive rate increases unless it proves its case to the Commission—by presentation of evidence, subject to the law, and against the skilled opposition of the Public Staff. Rates charged by CWSNC must be based on cost of service, and must be justified by detailed proof which is carefully examined and may be challenged by the Public Staff in a contested legal proceeding such as this pending rate case. Rate increases, while controversial, are necessary to support prudent investment in this capital-intensive industry.

In that regard, CWSNC notes that, from July 2016, to date, CWSNC has spent an estimated \$92,000 on the following two completed projects within the Bradfield Farms service area:

1. WWTP Blower Replacement



Replaced one larger 125 hp blower at Bradfield Farms WWTP (blower end only). Blower had catastrophic failure. (\$26,000)

2. Elevated Storage Tank Painting

Project consisted of painting exterior of 250,000-gallon elevated storage tank. (\$66,000)

In addition, the Company is also currently in the process of conducting the new sewage collection system evaluation project at Bradfield Farms, as discussed above.

Furthermore, CWSNC is always willing to speak with customers regarding any questions they may have regarding billing, service, rates, etc. The Company takes very seriously its duty as a public utility in North Carolina to provide its customers with adequate, efficient, and reasonable service at reasonable rates as required by G.S. 62-32(b) and G.S. 62-131(b).

**NEW BERN PUBLIC HEARING**

A public hearing was held beginning at 7:00 p.m., on August 22, 2017, in New Bern, North Carolina at the Craven County Courthouse. Chairman Edward S. Finley, who served as the Presiding Commissioner, was joined by Commissioners ToNola D. Brown-Bland, James G. Patterson, Jerry C. Dockham, and Lyons Gray. Staff Attorney William Grantmyre appeared for the Public Staff on behalf of the using and consuming public, accompanied by Public Staff Water Engineer Gina Casselberry. Robert H. Bennink, Jr., of the Bennink Law Office, appeared on behalf of CWSNC, accompanied by Matthew Klein, the Company's President; Bryce Mendenhall, CWSNC's Vice President of Operations; Danny

Lassiter, Regional Manager; Eddie Baldwin, Area Manager; Richard Linneman, Financial Planning and Analysis Manager; Anthony Gray, Senior Financial and Regulatory Analyst; and Deb Clark, Communications Coordinator.

Two customer witnesses testified at the New Bern public hearing. Both witnesses reside in CWSNC's Fairfield Harbour service area. Those two witnesses—Simon Lock and Tom Musser—testified primarily in opposition to the magnitude and impact of the proposed rate increase, including rate design issues.

**CWSNC's SPECIFIC RESPONSE TO CUSTOMER TESTIMONY:** Witnesses Lock and Musser voiced no current or ongoing service quality complaints affecting their utility service. CWSNC appreciates that fact and believes that the complete lack of any testimony at the New Bern public hearing describing service problems demonstrates that the Company is providing "adequate, efficient, and reasonable service" to its Fairfield Harbour customers, as required by G.S. 62-131(b).

Regarding the testimony from witnesses Lock and Musser in opposition to the magnitude and impact of the proposed rate increase, CWSNC hereby incorporates by reference the discussion and explanation set forth above in conjunction with the Charlotte public hearing as the Company's response. As previously stated, rate increases, while controversial, are necessary to support prudent investment in the Company's capital-intensive water and sewer industry. In that regard, from May 2016, to date, CWSNC invested approximately \$550,000 for the following five water and sewer projects within the Fairfield Harbour service area:

1. Sewer System Investigation Phases I, II, and III

The Company investigated 124,000 linear feet of 8-inch through 12-inch sanitary pipe segments along with 306 manhole inspections in the Fairfield Harbour subdivision. Project also included the Lift Station #3 sewer line point replacement of 16 feet of pipe, and raising/repairing 7 manholes. (\$331,000)

2. Sewer Line Replacement CIPP Liner

Project consisted of slip-lining approximately 243 feet of existing gravity sewer main in the Fairfield Harbour collection system due to severe inflow and infiltration (I&I). The cured-in-place liner was installed from Lift Station #3 to a manhole. (\$48,500)

3. Install New Auger Wash Press for Static Screen

Installation of new influent headworks screenings auger wash press at the wastewater treatment plant. (\$106,000)

4. Install New Booster Pumps with VFD Electrical Tank Removal Engineering

The project consisted of removing the existing 10,000-gallon code hydropneumatic storage tank at Fairfield Harbour water system and installation of new VFDs and controls to operate the existing booster pumps. (\$20,000)

5. Replacement of Standby Generator at Lift Station # 17 - 80 KW

Project consisted of installing a new 80 KW stationary standby generator with sub-base diesel fuel tank and sound attenuated enclosure to provide necessary power to the lift station during outages. (\$41,000)

In conclusion, CWSNC again states that the Company stands ready and willing to speak with customers, such as witnesses Lock and Musser, regarding any questions they may have regarding billing, service, rates, etc.

**GENERAL RESPONSES TO CUSTOMER ISSUES AT PUBLIC HEARINGS**

In response to customer comments and concerns which were generally expressed at all public hearings, CWSNC will, in addition to the responses set forth above in conjunction with the Charlotte and New Bern public hearings, generally address some important principles and facts that impact both the Company's service obligation and the rules that apply to the rate-setting process. The Company appreciates this opportunity to speak to its concerned customers and to its regulators<sup>1</sup>.

1. Proposed Rates – The legal principles that govern ratemaking are set forth in North Carolina General Statutes, Chapter 62, and in rules promulgated under those statutes. By law, the Commission may lawfully grant a rate increase to CWSNC only if the Company proves, in the face of a comprehensive investigation by the Public Staff (and any other intervenor opposition), that such an increase is authorized under the law, based on the actual cost and level of prudent and reasonable investment in plant and operation. Further, investment in plant is only recoverable after it has been made, placed into service, and audited by the Public Staff. This principle, referred to as the "used and useful" requirement, applies whether costs are recovered in a general rate case or under a system improvement charge.<sup>2</sup>

---

<sup>1</sup> Much of this information has been included in prior reports; the repetition is for the benefit of the customers whose service territories were addressed in the Charlotte and New Bern public hearings.

<sup>2</sup> Also, known as the Water System Improvement Charge (WSIC) and the Sewer System Improvement Charge (SSIC).

2. Investment in Replacing Aging Infrastructure – As documented by the U.S. Environmental Protection Agency (“EPA”) and the American Water Works Association (“AWWA”) there is a need for significant investment—more than \$20 billion—throughout North Carolina in replacing aging water and wastewater infrastructure, including drinking water pipes, wastewater collection pipes, and wastewater treatment facilities.<sup>3</sup>

3. Customer Communications:

A. Legal Compliance. In a general rate case, the Notice to Customers is prescribed by the requirements of statute and is issued by the Commission, based upon the input of CWSNC and the Public Staff. It is a joint effort to provide specific information to all customers about current and proposed rates. In a case like this—the first post-consolidation rate case for CWSNC—the length and complexity of the Notice to Customers serves the purpose of detail and transparency, yet is likely daunting to many customers who attempt to understand all its contents and the personal impact.

B. Improvements Regarding Communications With Customers.

CWSNC has recently augmented its communications capacity and

---

<sup>3</sup> See, [http://portal.ncdenr.org/c/document\\_library/get\\_file?uuid=df1eeae-d14b-455d-9ad4-73b5d635f057&groupId=14655572](http://portal.ncdenr.org/c/document_library/get_file?uuid=df1eeae-d14b-455d-9ad4-73b5d635f057&groupId=14655572). See also, “Buried No Longer,” American Water Works Association (AWWA) - <http://www.awwa.org/Portals/0/files/legreg/documents/BuriedNoLonger.pdf>; Drinking Water Needs Assessment, U.S. Environmental Protection Agency - <https://www.epa.gov/sites/production/files/2015-07/documents/epa816r13006.pdf>; and Wastewater Needs Assessment, U.S. Environmental Protection Agency - <https://www.epa.gov/cwns/clean-watersheds-needs-survey-cwns-2012-report-and-data>.

is working diligently on additional means to communicate with its customers. Emphasis will be on enhancing the ability to communicate electronically, in general, and through social media, in particular. The success of this approach will depend on the availability and accuracy of various modes of contact, and will thus be a function of customer permission and homeowners' association ("HOA") participation. Customers have very different preferences for how they communicate with the Company, and CWSNC is working to maximize the capacity of the various means of communication.

C. Outreach to Customers. Company personnel made themselves available both before and after the public hearings to speak with customers and respond to questions and concerns.

4. Rate Comparisons. An attempt to make general, but meaningful, comparisons between statewide average costs for all water and wastewater service providers and the costs of a provider like CWSNC often results in an "apples to oranges" assessment. The core distinction is found in the concept of "economies of scale." The costs of serving an individual customer in Raleigh or Charlotte, by a governmental utility enterprise, will likely on average be less than the cost of serving the typical CWSNC customer. This is the case because, among other things, urban areas are densely populated, they generally source water from large surface impoundments or rivers, they treat waste in large central treatment facilities, governmental entities tax their citizens, and they are often not required

to utilize “cost-of-service” ratemaking, as are the utilities regulated under Chapter 62 of the General Statutes. Contrast this to the areas served by CWSNC and others like it: often rural, less densely populated, generally not subject to city taxation, and frequently served by smaller waste treatment plants and by hundreds of wells, dispersed across the state and drawing water up from rock. The difference in cost attributes are obvious, and should inform any conversation about comparisons in respective average costs.

5. General Comments. CWSNC appreciates and takes seriously this opportunity to respond to the complaints and concerns expressed by the Company’s customers. While customers may not see visible signs of any improvements or repairs being made to their water and sewer systems, CWSNC notes that investments made by the Company in its water and sewer utility systems throughout the State of North Carolina are not always obvious to customers, given the nature of some of the work. Additionally, should there be a need for major investment for upgrades or repairs—as there will inevitably be for every system—CWSNC has an obligation arising from its status as a regulated public utility to make necessary capital investments to ensure that consumers receive reliable and adequate utility service.

Furthermore, objections to the proposed rate increase request and rate design matters (flat rate versus metered rate, irrigation rates, etc.) raised by some customers involve complex issues to be decided by the Commission based upon

careful consideration of all the evidence, including customer testimony, offered in this proceeding.

Respectfully submitted, this the 11th day of September, 2017.

**SANFORD LAW OFFICE, PLLC**

**Electronically Submitted**

**/s/Jo Anne Sanford**

North Carolina State Bar No. 6831

P.O. Box 28085

Raleigh, North Carolina 27611-8085

Phone: 919-210-4900

E-mail: [sanford@sanfordlawoffice.com](mailto:sanford@sanfordlawoffice.com)

**Robert H. Bennink, Jr.**

Bennink Law Office

130 Murphy Drive

Cary, North Carolina 27513

Phone: 919-760-3185

E-Mail: [BenninkLawOffice@aol.com](mailto:BenninkLawOffice@aol.com)

North Carolina State Bar No. 6502

**ATTORNEYS FOR CAROLINA WATER  
SERVICE, INC. OF NORTH CAROLINA**

OFFICIAL COPY

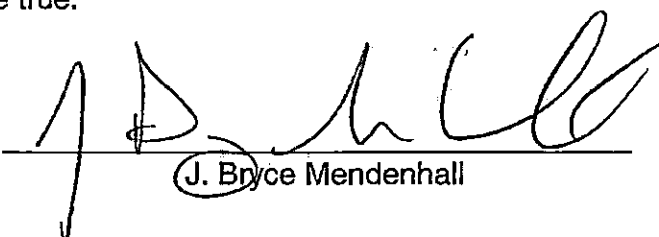
Sep 11 2017



## VERIFICATION

**J. Bryce Mendenhall**, being duly sworn, deposes and says:

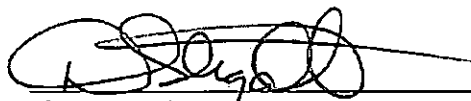
That he is the Vice-President of Operations for Carolina Water Service, Inc. of North Carolina; that he is familiar with the facts set out in the attached **REPORT ON CUSTOMER COMMENTS FROM PUBLIC HEARINGS IN CHARLOTTE AND NEW BERN, NORTH CAROLINA HELD ON AUGUST 1 AND 22, 2017, RESPECTIVELY**, filed in Docket No. W-354, Sub 356; that he has read the foregoing Report and knows the contents thereof; and that the same is true of his knowledge except as to those matters stated therein on information and belief, and as to those he believes them to be true.

  
J. Bryce Mendenhall

North Carolina

Mecklenburg County

Sworn to and subscribed before me this the 11 day of September, 2017.

  
Notary Public

Donna Stegall  
Printed Name

My Commission Expires: 01/08/2019



**CERTIFICATE OF SERVICE**

I hereby certify that on this the 11th day of September, 2017, a copy of the foregoing **REPORT ON CUSTOMER COMMENTS FROM PUBLIC HEARINGS IN CHARLOTTE AND NEW BERN, NORTH CAROLINA HELD ON AUGUST 1 AND 22, 2017, RESPECTIVELY**, filed in Docket No. W-354, Sub 356 has been duly served upon all parties of record by electronic service, as follows:

Gina C. Holt  
William E. Grantmyre  
Staff Attorneys  
Legal Division  
North Carolina Utilities Commission Public Staff  
[gina.holt@psncuc.nc.gov](mailto:gina.holt@psncuc.nc.gov)  
[william.grantmyre@psncuc.nc.gov](mailto:william.grantmyre@psncuc.nc.gov)  
Attorneys for the Public Staff

Dwight W. Allen  
Britton H. Allen  
Brady W. Allen  
The Allen Law Offices  
[dallen@theallenlawoffices.com](mailto:dallen@theallenlawoffices.com)  
[bhallen@theallenlawoffices.com](mailto:bhallen@theallenlawoffices.com)  
[brady.allen@theallenlawoffices.com](mailto:brady.allen@theallenlawoffices.com)  
Attorneys for Corolla Light Community Association, Inc.

**Electronically Submitted**  
**/s/Jo Anne Sanford**

State Bar No. 6831  
SANFORD LAW OFFICE, PLLC  
Post Office Box 28085  
Raleigh, North Carolina 27611-8085  
Tel: (919) 210-4900  
[sanford@sanfordlawoffice.com](mailto:sanford@sanfordlawoffice.com)  
**Attorney for Carolina Water Service,**  
**Inc. of North Carolina**

--1A

OFFICIAL COPY

Sep 18 2017

STATE OF NORTH CAROLINA  
UTILITIES COMMISSION  
RALEIGH

DOCKET NO. W-354, SUB 356

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of  
Application by Carolina Water Service, )  
Inc. of North Carolina, 4944 Parkway )  
Plaza Boulevard, Suite 375, Charlotte, ) **REPORT ON CUSTOMER**  
North Carolina 28217, for Authority to ) **COMMENTS FROM PUBLIC**  
Adjust and Increase Rates for Water ) **HEARINGS IN WILMINGTON**  
and Sewer Utility Service in All of Its ) **AND RALEIGH, NORTH**  
Service Areas in North Carolina, Except ) **CAROLINA, HELD ON**  
Corolla Light and Monteray Shores ) **AUGUST 23 AND 28, 2017,**  
Service Area and Elk River ) **RESPECTIVELY**  
Development )

**NOW COMES Carolina Water Service, Inc. of North Carolina ("CWSNC"**  
or "Company") and files this report in response to customer complaints and  
concerns raised at the Wilmington and Raleigh public hearings.

The Wilmington hearing was held at 7:00 p.m. on August 23, 2017, at the  
New Hanover County Courthouse. Chairman Edward S. Finley, Jr. presided,  
joined by Commissioners ToNola D. Brown-Bland, James G. Patterson, and Lyons  
Gray. Staff Attorney William E. Grantmyre appeared for the Public Staff on behalf  
of the using and consuming public, accompanied by Public Staff Water Engineer  
Gina Casselberry. Jo Anne Sanford of Sanford Law Office, PLLC appeared on  
behalf of CWSNC, joined by Matthew Klein, President of CWSNC. Other  
Company personnel, present and available to assist customers with questions or  
requests, included: Bryce Mendenhall, Vice-President of Operations; Danny  
Lassiter, Regional Manager; Eddie Baldwin, Area Manager; Greg Spillman,

Operator; Richard Linneman, Financial Planning and Analysis Manager; and Deb Clark, Communications Coordinator.

The Raleigh hearing was held at 7:00 p.m. on August 28, 2017, at the Dobbs Building, 430 North Salisbury Street, in the Commission Hearing Room. Present for the Company were Matthew Klein, Bryce Mendenhall, Richard Linneman, Anthony Gray, Danny Lassiter, and Deb Clark. Jo Anne Sanford represented CWSNC as counsel.

### **OVERVIEW OF THE WILMINGTON PUBLIC HEARING**

Nine (9) witnesses testified, one of whom (Mr. Frank Carroll) spoke on behalf of himself and twenty-eight (28) other customers from Belvedere Plantation ("Belvedere") who appeared and stood to indicate their collective endorsement of Mr. Carroll's comments. The other witnesses were all from, or served by, either the Belvedere or the Treasure Cove systems. Each customer who testified expressed concern about the proposed percentage increase in rates, and they variously raised issues about the level of service (including repairs and maintenance), water quality in terms of particulate and hardness issues, customer communications, and rate equity among different kinds of service providers.

The service quality issues were principally confined to three areas: (1) a few instances where there was a "discolored" water supply at Belvedere, whether caused by water main breaks or by issues with the operation of a well; (2) hardness of the water; and (3) customer communications, including information relating to Boil Water Advisories ("BWAs") and the proposed rate increase. Other areas of customer focus included the differential between other providers' rates for water and wastewater service and the "average" rates for CWSNC, and the move towards uniform rates which is associated with a large percentage increase for the Treasure Cove customers.

## OVERVIEW OF THE RALEIGH PUBLIC HEARING

Four (4) witnesses testified at the Raleigh hearing. Everyone objected to the amount of the rate increase, two customers focused on rate design and cross-subsidy issues, and two customers spoke to their concern about the financial impact of the rate increase on some customers.

## GENERAL RESPONSES TO CUSTOMER ISSUES

CWSNC believes it is important to explain some principles and facts that impact both the Company's service obligation and the rules that apply to the rate-setting process for public utilities such as CWSNC, assuring protections to customers. The Company appreciates this opportunity to speak to its concerned customers and to its regulators.

1. Proposed Rates – The legal principles that govern ratemaking are set forth in North Carolina General Statutes, Chapter 62, and in rules promulgated by the Utilities Commission under those statutes. By law, CWSNC receives a rate increase only if it proves, in the face of an investigation by the Public Staff (and any Intervenor opposition), that such an increase is authorized under the law, based on the actual cost and level of prudent and reasonable investment in plant and operation. Further, investment in plant is *only* recoverable after it has been made, placed into service, and audited by the Public Staff. This principle—referred to as the “used and useful” requirement—applies whether costs are recovered in a general rate case or under a system improvement charge.<sup>1</sup>

<sup>1</sup> Also, known as the Water System Improvement Charge (WSIC) and the Sewer System Improvement Charge (SSIC).

2. Investment in Replacing Aging Infrastructure – As documented by the U.S. Environmental Protection Agency (“EPA”) and the American Water Works Association (“AWWA”), significant investment is needed throughout North Carolina—more than \$20 billion—to replace aging water and wastewater infrastructure, including drinking water pipes, wastewater collection pipes, and wastewater treatment facilities.<sup>2</sup>
3. Water Quality – Water quality can be impacted by, among other things, unplanned water main breaks, unexpected malfunctioning of equipment, and challenges when implementing capital projects. In 2017, Belvedere experienced several unplanned water main breaks (some attributable to the acts or omissions of third parties), the malfunction of a pump at Well No. 1, and “discolored” water (i.e., sand) entering a portion of the water distribution system as the Company completed a capital project at Well No. 2. See *response to Mr. Carroll, below*.
4. Customer Communications:
  - A. Boil Water Advisories – BWAs are only issued to the customers within a system who need to boil their water. Thus, all customers served by a system may not receive an advisory for any single event. The BWA specifies the relevant customers, by address.
  - B. Legal Compliance Regarding Notice – In a rate case, the Public Notice to customers is prescribed by the requirements of statute and

<sup>2</sup> See, [http://portal.ncdenr.org/c/document\\_library/get\\_file?uuid=df1eeae-d14b-455d-9ad4-73b5d635f057&groupId=14655572](http://portal.ncdenr.org/c/document_library/get_file?uuid=df1eeae-d14b-455d-9ad4-73b5d635f057&groupId=14655572). See also, “Buried No Longer,” American Water Works Association (AWWA) - <http://www.awwa.org/Portals/0/files/legreg/documents/BuriedNoLonger.pdf>; Drinking Water Needs Assessment, U.S. Environmental Protection Agency - <https://www.epa.gov/sites/production/files/2015-07/documents/epa816r13006.pdf>; and Wastewater Needs Assessment, U.S. Environmental Protection Agency - <https://www.epa.gov/cwns/clean-watersheds-needs-survey-cwns-2012-report-and-data>.

is issued by the Commission, based upon the input of CWSNC and the Public Staff. It is a joint effort to provide specific information to all customers about current and proposed rates. In a case like this—the first post-consolidation rate case for CWSNC—the length and complexity of the Public Notice serves the purpose of detail and transparency, yet is likely daunting to many customers who attempt to understand all its contents and the personal impact.

- C. Communication Improvements – CWSNC has recently augmented its communications capacity and is working diligently on additional means to communicate with its customers. Emphasis will be on enhancing the ability to communicate electronically. The success of this approach will depend on the availability and accuracy of various modes of contact, and will thus be a function of customer permission and homeowners' association participation. Customers have very different preferences for how they communicate with the Company, and CWSNC is working to maximize the capacity of the various means of communication.
5. Rate Comparisons – An attempt to make meaningful comparisons between statewide average costs for all water and wastewater service providers and the costs of a provider like CWSNC often results in an “apples to oranges” assessment. The core distinction is found in the concept of “economies of scale.” The costs of serving an individual customer in Raleigh or Charlotte, by a governmental utility enterprise, will likely on average be less than the cost of serving the typical CWSNC customer. The urban areas are densely populated, they generally source water from large surface impoundments or rivers, they treat waste in large central treatment facilities, governmental entities tax their citizens, and they are often not required to utilize “cost-of-service” ratemaking, as are the utilities regulated under Chapter 62 of the

General Statutes. Contrast this to the areas served by CWSNC and others like it: often rural, far less densely populated, and frequently served by smaller waste treatment plants and by hundreds of wells, drawing water up from rock and dispersed across the state. The difference in cost attributes are obvious, and should inform any conversation about comparisons in respective average costs.

6. GenX – The Company has tested for GenX in its groundwater source in the Wilmington area and the reported results are “non-detect.”

#### **SPECIFIC RESPONSES TO CUSTOMER TESTIMONY - WILMINGTON**

1. **Frank (Frances) Carroll, 106 South Belvedere Drive, Belvedere.** *Tr. Vol. 5, pp. 16-38*

As indicated above, Mr. Carroll spoke on behalf of himself and twenty-eight (28) other customers, who were present at the hearing and stood to reflect their approval and adoption of his comments. He also referred to the petition signed by a number of Belvedere customers. (*See Official Exhibits, Vol. 5, Wilmington, Carroll Exhibit 3, pp. 14-24*) Repeating the questions he presented to representatives of the Company at the lengthy public meeting of Belvedere customers (“Public Meeting”), held in Hampstead on August 16, 2017, Mr. Carroll objected to the rate increase and complained about communications (generally), the number of service interruptions, the BWAs, hard water, the “chlorine smell,” reliability and adequacy of the system, and “discoloration” of the water.

#### **RESPONSE:**

- Investment to improve quality of service and water quality. CWSNC has invested within Belvedere an estimated \$4,855,759 since 2015 on various water and sewer capital projects. Much of the recent investment (\$1,049,200) was for upgrades to Well Nos. 1 and 2, including an additional 150,000-gallon



ground storage tank at Well No. 1; new pipeline and booster pumps at Well No. 1; SCADA controls and electrical wiring; and upgrades to Well No. 2 through a larger pump, a larger generator, new piping and SCADA controls to communicate with Well No. 1.

Additional recently-completed, active, and other planned investments to address the customers' concerns about "discolored water" and hardness, include:

- Installation of an automated flushing device on Hickory Drive in Belvedere on September 6, 2017, at a cost of \$3,200;
  - Commitment to resolve "hard water" concerns by installing appropriate treatment systems at Well Nos. 1 and 2 within approximately six (6) months. Acknowledging the support of the Belvedere customers, the Company is moving forward in a timely fashion on the design, permitting, and installation of these treatment systems. On August 17, 2017, CWSNC solicited quotes from an engineering firm for the costs to install the treatment systems. The cost is estimated to be approximately \$800,000, including labor and parts.
  - The Company identified the root cause of the "discolored water": sand from Well No. 2 was being brought up to the surface and pushed into the distribution system. The repair to Well No. 2 should be completed by September 25, 2017. Until then, CWSNC will continue to provide customers with clean, safe, drinking water from Well No. 1. The project cost is estimated to be between \$30,000 and \$50,000.
- 
- Water Main Breaks. The Company's records show: (1) a two-inch water main break on March 14, 2017; (2) a booster pump failure due to a power surge at Well No. 1 on March 22, 2017; (3) another booster pump failure on April 19, 2017, due to a generator malfunction (which was corrected); (4) a well pump

leak in the well-house on April 24, 2017; (5) a water main renovation on Greenview Court on April 25, 2017; (6) a pump failure at Well No. 1 requiring the use of Well No. 2<sup>3</sup>; (7) a repair necessitated on August 23, 2017, by a contractor's backhoe operator, who hit a water main; and (8) an eight-inch main split on September 12, 2017, due to prior improper installation of the water main on top of a boulder. All of these instances required issuance of BWAs by use of the "Voice Response" system, which delivers a voice message to the customer.

Water main breaks are inevitable for various reasons, including aged infrastructure and a failure, upon initial installation by a developer, to properly bed the pipe. Both the Company and customers are dependent upon the integrity of the initial installations, which were generally not performed by CWSNC. CWSNC apologizes for these service interruptions.

- Poor Communication About Boil Water Advisories. BWAs are issued by CWSNC to Belvedere customers in conjunction with each line break, and it should be emphasized that only the customers affected by a break are notified. The BWAs state the specific streets (i.e., customers) that were affected. These notices are delivered by the Voice Reach system after any water main break which necessitates the alert. CWSNC will also request that customers provide the Company with their best telephone and web-based contact information, in the event of future advisories. Receipt of proper customer contact information facilitates proper and prompt delivery of the required customer communication.

<sup>3</sup> In this instance, the Company resorted to using Well No.2, rather than buying from Pender County, due to concern on behalf of its customers about the "GenX issue," which was much in the news at that time concerning all water sourced from the Cape Fear River. The start-up of Well No. 2—which had been off-line due to a capital improvement project—entailed some disruption and required emergency approval from the North Carolina Department of Environmental Quality. Nonetheless, the Company's judgment was a sound and reasonable exercise of concern on behalf of its customers, under those circumstances.

- Chlorination, Haloacetic Acids, and Total Trihalomethanes. Some customers expressed concern over haloacetic acids (HAA5s) and total trihalomethanes (TTHMs). HAA5s and TTHMs are unfortunate by-products of the water disinfection process (i.e., chlorine). CWSNC keeps the water safe, but commits to work to better address the HAA5 and TTHM by-products. The combination of the age of the water, the temperature of the water, and the amount of chlorine in the water can have an impact on the presence and amount of TTHMs and HAA5s. The Company does its best to monitor and control the HAA5s and TTHMs by: (1) flushing the water distribution mains; (2) keeping the chlorine at a low, but safe level (below the maximum of 4.0 milligrams per liter (mg/L) and more than the minimum of 0.02 mg/L); (3) seeking to better circulate (i.e., “loop”) the water within the water mains to prevent “dead end” lines and improve water quality; and (4) deploying, where appropriate, automatic flushing devices throughout the water distribution system.
- GenX. As noted above, the Company has tested for GenX in its groundwater source in the Wilmington area and the reported results are “non-detect.”
- Road repairs. Greenvue Court was resurfaced on August 31, 2017.

**2. Randal Woodruff, County Manager, Pender County. P.O. Box 5, Burgaw, NC** *Tr. Vol. 5, pp. 39-42*

Speaking on behalf of the Pender County Commissioners and reading from their joint letter of July 24, 2017, Mr. Woodruff expressed the Commission’s opposition to the rate increase and its objections to the water quality and pressure problems that the Belvedere customers were experiencing. On behalf of the Commissioners, Mr. Woodruff requested that, at a minimum, any rate request should be deferred until service issues had been corrected.

**RESPONSE:** The service issues to which Mr. Woodruff spoke are addressed and explained elsewhere in this response. Respectfully, the Company thanks Mr. Woodruff and the Pender County Commissioners and reiterates the pledge to use its best efforts to improve performance on all issues raised.

**3. Diana Wooley, 348 Friday Drive, Treasure Cove / North Hills Subdivision. *Tr. Vol. 5, pp. 42-49***

Mrs. Wooley contests what she calculates to be a 300% rate increase.

**RESPONSE:** The Company recognizes both that the rates for Treasure Cove are lower than many other CWSNC systems, as Mrs. Wooley noted, and that the percentage increase proposed for this subdivision is significant. The Company is working with the Public Staff on an alternative rate design to mitigate the percentage-increase for this system.

**4. Ed Worrell, 166 North Hills Drive, Treasure Cove. *Tr. Vol. 5, pp. 45-48***

Mr. Worrell, who was a volunteer fireman in the Ogden Fire Department for 20 years, has lived at this address for 40 years. He recounts that in the 1990s, the Fire Department was instructed to "quit using the hydrants," and he objects to any rate increase until the hydrants are "repaired." Upon questioning by Public Staff attorney William E. Grantmyre, Mr. Worrell stated he was not aware that the two (2) hydropneumatic pressure tanks at Treasure Cove (10,000 gallons each) lacked the capacity to meet the instantaneous demand for firefighting purposes.

**RESPONSE:** The hydrants in this community are properly used only for flushing, and the system does not support use of the hydrants for fire suppression. CWSNC informs the Fire Department in an annual letter that the hydrants are for flushing only, and are not to be used for fire suppression. It would be dangerous to rely on them for fire suppression and it is important to homeowners and the Fire Department for this to be clearly understood. They are marked for flushing use

only. Other hydrants that are out of order are labeled as such; it is normal in any system to have some hydrants out of service at any given time.

**5. Danny Conner, 231 Long John Silver, Treasure Cove. *Tr. Vol. 5, pp. 49-58***

Mr. Conner, a long-time resident of Treasure Cove, acknowledged the age of the distribution system (30-40 years) and of his water meter (35 years). He also noted that, in his opinion, despite the age of the system and inconsistency of the water pressure, the Company continues to add customers. Additionally, he expressed concerns about the hydrants; the high mineral content of the water; "overdone" chlorination; discoloration to appliances, dishes, etc.; the extra cost of treatment and replacement; GenX; the inability to reach a service representative over a weekend; and rate disparity with respect to other adjacent water service providers. Contesting the average usage figure that is used in the proposed rate calculation, Mr. Conner contended that rates should be derived on a system-specific basis.

**RESPONSE:** Many of these issues are discussed above in the General Comments.

In general, Mr. Conner's acknowledgement of the age of this system (and that of other CWSNC systems) supports the Company's contention that significant, ongoing investments in infrastructure are required. The system is currently being treated for iron and manganese with a sequestrant ("Sea Quest"), and it is on a quarterly flushing schedule. The Company has proposed to install in the future an iron and manganese filter at Well No. 2, at a projected cost of \$125,000.

The Company strongly supports the consolidation measures it has implemented, and the resultant, incremental move towards uniformity of rates across its systems. It is true that not every system will need significant investment every year. However, it is equally true that all systems will need significant

investment over time. More uniformity of rates will achieve a greater sharing of this burden across the Company's footprint by spreading the rate impact.

**6. Ferrell Drewry, 508 Azalea Drive, Belvedere. *Tr. Vol. 5, pp. 58-69***

Mr. Drewry expressed concern that CWSNC's service quality had declined in the past nine months, with specific focus on a failure to timely notify customers of water quality issues. He questions the adequacy of the flushing program, and points to a rate disparity between CWSNC and other utilities.

**RESPONSE:** The water quality issues and the efforts to address them, including flushing of water mains, have been addressed above within Paragraph No. 1 in the response to Mr. Carroll. The rate comparison issue is discussed above, in "General Responses to Customer Issues."

**7. Ernest Thomas Chance, 102 Treasure Island Way, Treasure Cove. *Tr. Vol. 5, pp. 69-79***

Mr. Chance objected to the rate increase, the failure to receive BWAs when he believes repairs to water mains had been made, the extra costs of the treatment he undertakes, the difference between the average usage in his area and that used for rate-design purposes, and the failure to properly maintain the fence and a ditch at the Company's well within the system in his neighborhood, the latter of which he alleged contributed to flooding in his house "...three times in 18 months." *Tr. Vol. 5, p. 72, l. 6-10; p. 74, l. 12.*

**RESPONSE:** Company President Klein and members of his team further evaluated Treasure Cove the morning after the Wilmington hearing and met with various neighbors at that time. The fencing issues were addressed promptly—one section of split rail fence was removed and another section was restored. The drainage ditch was not blocked or overgrown at that time, having been mowed within the past six months. Mr. Chance suggests that drainage ditch maintenance

is a causative factor in the flooding at his house; however, signage in the area indicates that part of this system is in an area that floods frequently.<sup>4</sup>

All meter boxes were evaluated for possible renovations and the hydrants were assessed to determine whether they required repairs or replacement with adequate "blow-offs" (a tool installed into the water main to allow flushing). Currently, 60% of the meter boxes have been renovated and an additional seven meter boxes have been completely replaced.

**8. Thomas Mathis, 105 Robert Stevenson Drive, Treasure Cove. *Tr. Vol. 5, pp. 80-86***

Mr. Mathis endorsed the comments made by other customers, and particularly objects to the magnitude of the proposed rate increase.

**RESPONSE:** As indicated, the Company recognizes this is a significant *percentage* increase for Treasure Cove, and is working with the Public Staff regarding the rate design.

**9. Mandy Ware, 2909 Country Club Drive, Belvedere customer. *Tr. Vol. 5, pp. 86-93***

Ms. Ware addressed her concerns about water quality, communications, and price. Her objections included the cost and need for a constant supply of bottled water, the uncertainty about when the water will be usable for bathing her children, and the deposits left in her tub and sink from the water when it is discolored. The expense of a rate increase, combined with her additional costs to address the discoloration issues, were also a focus of her testimony.

<sup>4</sup> See Attachment A for signage dealing with the purchase of various properties by the New Hanover County Hazard Mitigation Program due to repetitive flooding within the area.

**RESPONSE:** The Company apologizes to Ms. Ware for the inconvenience she has experienced due to the inconsistency in water quality. As indicated at the Hampstead public meeting on August 16, 2017 and reiterated above, the Company has rectified the "discoloration" issue (through the use of Well No. 1 and with the nearly-completed repair to Well No. 2) and is in the process of addressing the hardness issues that prompted several of Ms. Ware's concerns.

#### **SPECIFIC RESPONSES TO CUSTOMER TESTIMONY---RALEIGH**

1. **Vincent P. Roy, 237 Lakeview Drive, Sanford. Carolina Trace. *Tr. Vol. 6, pp.11-28***

Mr. Roy commended the Public Staff, as well as the work performed with CWSNC representatives (i.e., Danny Lassiter and his team) in quarterly meetings with his homeowners' association<sup>5</sup>, held over "...the last several years." *Tr. Vol. 6, p. 12* Mr. Roy addressed concerns about an inconsistent ability to reach help via the Company's customer service line, and the pace of the movement towards uniform rates. He also challenged the ratio between the base facility charge and the volumetric rate, and voiced his interest in assurance that the Company is required to demonstrate efficiency in its operation.

**RESPONSE:** The General Response section, above, addresses the benefits of uniform rates, which balance and mitigate the burden of repairs by spreading them more broadly across the CWSNC system. Consolidated corporate organization and rate structures have many obvious and demonstrated benefits, and the Company is committed to moving towards rate uniformity over time. However, in recognition of the impact on some customers in the system, the Company is moving incrementally towards that uniformity, as is demonstrated by the stipulated rates in this case which create four rate divisions. It should also be

<sup>5</sup> One of eighteen (18) property owners' associations in Carolina Trace. See *Tr. Vol. 6, p.13, l. 13-14*.



noted that since 2009, CWSNC has invested approximately \$928,500 in Carolina Trace.

The arguments about rate design, specifically about the ratio of fixed to volumetric costs, are legion, but the essential truth is this—to tilt too far in either direction is to decidedly favor one group of customers over another. The key is balance, and the Company submits that the proposed settlement in this case achieves that balance.

As to assurance of efficiency, the Company urges all customers to understand the level of scrutiny that is imposed in the Public Staff's examination of this case—an examination that plumbs the details of Company books and management and operational decisions to ensure that rates are based on costs that flow from efficient, reasonable operation of the Company. Over fifteen (15) weeks of discovery, the Public Staff propounded fifty-four (54) sets of data requests and numerous follow-up questions and conversations. The Public Staff also conducted field inspections of the water systems at Ski Mountain, Crestview, Misty Mountain, Chapel Hill, Powder Horn Mountain, Fairfield Harbor, Belvedere Plantation, Olde Point, Treasure Cove, Bradfield Farms, Wildlife Bay, Zemosa Acres, and Kings Grant, and of the sewer systems at Fairfield Harbor, Belvedere Plantation, Bradfield Farms, Danby, Independent/Hemby and Kings Grant. Statewide public hearings were held by the Commission, and attended by representatives of the Public Staff and the Company, in Asheville, Boone, Charlotte, New Bern, Wilmington, and Raleigh. An evidentiary hearing will be held in Raleigh on September 20, 2017, to receive evidence and to examine the expert witnesses. Additionally, the Public Staff followed up on written customer protests and concerns raised at the public hearings and through e-mails and letters, and reviewed relevant North Carolina Department of Environmental Quality ("DEQ") records. The rate-setting process is rigorous and intensive, as it should be, and

the burden of proof is on the utility to prove in a judicial arena that it merits additional rates.

**2. William Glance, 49 Indian Trail, Sanford, NC. Carolina Trace. Tr. Vol. 6, pp. 28-30**

Mr. Glance's focus is on the proposed rate structure. His concern is that it would overcompensate investors for their level of risk, produce inappropriate cost subsidies among customer groups, and discourage conservation.

**RESPONSE:** The discussion about rates in the General Response, plus the response to Mr. Roy, above, are respectfully submitted in answer to Mr. Glance's testimony.

**3. Ms. Judith Bassett, 5271 Woof Place, Knightdale, NC. Amber Acres. Tr. Vol. 6, pp. 30-32**

A 19-year resident of Amber Acres, Ms. Bassett has no service complaints but expressed personal concern that the rate increase will be a financial hardship on her and on her neighbors.

**4. Ben Farmer, 6113 Jordan Woods Drive, Raleigh, NC. Jordan Woods. Tr. Vol. 6, pp. 32-35**

Speaking as a member of a small subdivision (approximately 25 homes), Mr. Farmer spoke about the magnitude of the proposed rate increase and expressed thoughtful concern for his neighbors.

**RESPONSES TO MS. BASSETT AND MR. FARMER:** As a word on investment, it is useful to observe that in 2014 the Company invested \$265,000 in six (6) hydro tank replacements at Ashley Hills/Amber Acres. Also in 2014, the Company

installed a ground storage tank at Jordan Woods, at an approximate cost of \$118,000.

The Company appreciates Ms. Bassett and Mr. Farmer taking the time to come to the hearing to speak on behalf of those for whom a rate increase is a hardship. CWSNC strives to be efficient and thus to minimize the necessary costs of service, and is pleased to have reached an agreement with the Public Staff that reduces the proposed increase below that which was initially requested. Unfortunately, this is a capital-intensive industry; thus, if the investments made by CWSNC are proved to be necessary and prudent, recovery of those costs is required for the Company to continue to provide good service. The public's assurance of fairness is found in the strict, highly skilled oversight of the Public Staff and the Commission.

Respectfully submitted, this the 18th day of September, 2017.

SANFORD LAW OFFICE, PLLC

**Electronically Submitted**

**/s/Jo Anne Sanford**

State Bar No. 6831

Post Office Box 28085

Raleigh, North Carolina 27611

T: 919-210-4900

e-mail: [sanford@sanfordlawoffice.com](mailto:sanford@sanfordlawoffice.com)

ATTORNEY FOR CAROLINA WATER SERVICE, INC.  
OF NORTH CAROLINA

### New Hanover County Hazard Mitigation Properties

These properties sustained substantial damage from flooding and were purchased by New Hanover County with hazard mitigation funds from FEMA. The houses that were once on the properties were removed and the land has been preserved as open space.

The Severe Repetitive Loss (SRL) grant program was authorized by the Bunning-Bereuter-Shumerauer Flood Insurance Reform Act of 2004, which amended the National Flood Insurance Act of 1968 to provide funding to reduce or eliminate the long-term risk of flood damage to severe repetitive loss (SRL) structures insured under the National Flood Insurance Program (NFIP).


As this property is considered unimproved property by New Hanover County, it is not open to public use for any purpose at this time.

For further information please call 798-7620


**VERIFICATION**

**J. Bryce Mendenhall**, being duly sworn, deposes and says:

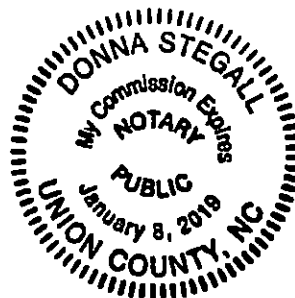
That he is the Vice President of Operations for Carolina Water Service, Inc. of North Carolina; that he is familiar with the facts set out in this **REPORT ON CUSTOMER COMMENTS FROM PUBLIC HEARINGS IN WILMINGTON AND RALEIGH, NORTH CAROLINA, HELD ON AUGUST 23 AND 28, 2017, RESPECTIVELY**, filed in Docket No. W-354, Sub 356; that he has read the foregoing Report and knows the contents thereof; and that the same is true of his knowledge except as to those matters stated therein on information and belief, and as to those he believes them to be true.

  
J. Bryce Mendenhall

Sworn to and subscribed before me this  
the 18 day of September, 2017.

  
Donna Stegall

Notary Public



My commission expires: 01/08/2019

**CERTIFICATE OF SERVICE**

I hereby certify that on this the 18th day of September, 2017, a copy of the foregoing REPORT has been duly served upon all parties of record by electronic service, as follows:

Gina C. Holt  
Staff Attorney, Legal Division  
North Carolina Utilities Commission - Public Staff  
gina.holt@psncuc.nc.gov

William E. Grantmyre  
Staff Attorney, Legal Division  
North Carolina Utilities Commission - Public Staff  
william.grantmyre@psncuc.nc.gov

Dwight W. Allen  
Britton H. Allen  
Brady W. Allen  
The Allen Law Offices  
dallen@theallenlawoffices.com  
bhallen@theallenlawoffices.com  
brady.allen@theallenlawoffices.com

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