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

November 27, 2018

Ms. M. Lynn Jarvis, Chief Clerk
North Carolina Utilities Commission
4325 Mail Service Center
Raleigh, North Carolina 27699-4325

Via Electronic Delivery

Re: Application by Carolina Water Service, Inc. of North Carolina for Authority to Increase Rates for Water and Sewer Utility Service in North Carolina
Docket No. W-354, Sub 360: Proposed Order

Dear Ms. Jarvis:

Carolina Water Service, Inc. of North Carolina ("CWSNC" or "Company") submits for electronic filing in the above-referenced docket its Proposed Order, including the Affidavit of Anthony Gray concerning rate case expenses and Supplemental Exhibits I (Billing Analysis by Service Areas) and II (Calculation of Gross Revenue Impact of Company Adjustments), prepared by Dante M. DeStefano.

I certify herein that I have served all parties to the proceeding electronically with a copy of the filing.

As always, thank you and your staff for your assistance; please feel free to contact me if there are any questions or suggestions.

Sincerely,

Electronically Submitted

/s/Jo Anne Sanford
State Bar No. 6831
Attorney for Carolina Water Service, Inc. of North Carolina

c: Parties of Record

STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH

DOCKET NO. W-354, SUB 360

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	)	CWSNC'S PROPOSED ORDER APPROVING JOINT PARTIAL SETTLEMENT AGREEMENT AND STIPULATION, GRANTING RATE INCREASE, AND REQUIRING CUSTOMER NOTICE

HEARD: Tuesday, August 28, 2018, at 7:00 p.m., in the Craven County Courthouse, Courthouse Annex, Courtroom #4, 302 Broad Street, New Bern, North Carolina

Wednesday, August 29, 2018, at 7:00 p.m., in Courtroom 317, New Hanover County Courthouse, 316 Princess Street, Wilmington, North Carolina

Wednesday, September 19, 2018, at 7:00 p.m., in the Mecklenburg County Courthouse, Courtroom 5350, 832 East 4th Street, Charlotte, North Carolina

Tuesday, September 25, 2018, at 7:00 p.m., in the Watauga County Courthouse, Courtroom 1, 842 W. King Street, Boone, North Carolina

Wednesday, September 26, 2018, at 7:00 p.m., in the Buncombe County Courthouse, Courtroom 1A, 60 Court Plaza, Asheville, North Carolina

Monday, October 8, 2018, at 7:00 p.m., and Tuesday, October 16, 2018, at 10:00 a.m., in Commission Hearing Room 2115, Dobbs Building, 430 North Salisbury Street, Raleigh, North Carolina

BEFORE: Chairman Edward S. Finley, Jr., Presiding, and Commissioners ToNola D. Brown-Bland, Jerry C. Dockham, James G. Patterson, Lyons Gray, Daniel G. Clodfelter, and Charlotte A. Mitchell

APPEARANCES:

For Carolina Water Service, Inc. of North Carolina:

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

Robert H. Bennink, Jr., Bennink Law Office, 130 Murphy Drive, Cary, North Carolina 27513

For the Using and Consuming Public:

Gina C. Holt, William E. Grantmyre, and John Little, Staff Attorneys, Public Staff – North Carolina Utilities Commission, 4326 Mail Service Center, Raleigh, North Carolina 27699-4326

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

For Corolla Light Community Association, Inc.:

Brady W. Allen, The Allen Law Offices, PLLC, 1514 Glenwood Ave., Suite 200, Raleigh, North Carolina 27608

BY THE COMMISSION: On March 23, 2018, Carolina Water Service, Inc. of North Carolina ("CWSNC" or "Company") filed a letter notifying the North Carolina Utilities Commission ("Commission" or "NCUC") stating its intent to file a general rate case as required by Commission Rule R1-17(a).

On April 6, 2018, CWSNC filed a procedural request whereby the Company proposed that the impact of the Federal Tax Cuts and Jobs Act on the Company's rates be addressed and resolved in this docket, rather than in the Commission's generic tax docket (Docket No. M-100, Sub 148).

On April 27, 2018, CWSNC filed an Application for a general rate increase (the "Application") seeking authority: (1) to increase and adjust its rates for water and sewer utility service in all of its service areas in North Carolina[1], except for the Company's Corolla Light/Monteray Shores ("CLMS") service area; and (2) to pass-through any increases in purchased bulk water rates, subject to sufficient proof by CWSNC of the increase, as well as any increased costs of wastewater treatment performed by third parties and billed to CWSNC. The Company's Application also included the information and data required by NCUC Form W-1.

On May 16, 2018, the Company filed an Amendment to its Application to provide a revised Page 4 of 7 to Appendix A-1.

On May 22, 2018, the Commission issued its Order Establishing General Rate Case, Suspending Rates, Scheduling Hearings, and Requiring Customer Notice. By that Order, the Commission scheduled the Application for public hearings in New Bern, Wilmington, Charlotte, Boone, Asheville, and Raleigh, North Carolina, and for evidentiary hearing in Raleigh; established the dates for filing testimony; and required that a notice be sent to all affected customers regarding the proposed rate increase and hearings.

On May 30, 2018, CWSNC filed its Ongoing Three-Year WSIC/SSIC Plan.

On July 27, 2018, CWSNC filed the Commission-required Certificate of Service indicating that the required Notices to Customers were served in conformity with the May 22, 2018 Scheduling Order.

[1] The Company's Elk River water and sewer service area is subject to the rate increase proposed in this docket. The Elk River service area is included in CWSNC's Uniform Water and Sewer Rate Divisions.

On September 4, 2018, CWSNC filed the direct testimony and exhibits of Company witnesses Richard Linneman, Dylan D'Ascendis, and Deborah Clark.

On September 18, 2018, CWSNC filed its Report on Customer Comments from Public Hearings in New Bern and Wilmington, North Carolina.

On September 24, 2018, the Corolla Light Community Association, Inc. ("Corolla Light HOA") filed a petition to Intervene. The Commission allowed the Corolla Light HOA's intervention by Order dated October 11, 2018.

On September 25, 2018, the Public Staff filed a motion in this docket whereby the Commission was requested to grant an extension of time to October 3, 2018, for the Public Staff and intervenors to file testimony and exhibits, and an extension to October 12, 2018, for CWSNC to file rebuttal testimony. The requested extensions of time were granted by Commission Order dated September 26, 2018.

On September 26, 2018, the Attorney General's Office filed a Notice of Intervention in this proceeding.

On October 3, 2018, the Public Staff filed the direct testimony and exhibits of Public Staff witnesses Gina Y. Casselberry, John R. Hinton, Lynn Feasel, and Sonja R. Johnson.

On October 4, 2018, CWSNC filed its Report on Customer Comments from Public Hearing in Charlotte, North Carolina.

Public Staff witness Michelle Boswell filed testimony on October 4, 2018, and on October 5, 2018, Public Staff witness Johnson filed supplemental testimony.

On October 11, 2018, the Public Staff filed supplemental testimony of Gina Y. Casselberry, and on October 12, 2018, it filed the supplemental testimony of Michelle Boswell, Windley E. Henry, John R. Hinton, and additional supplemental testimony from Sonja Johnson. Henry Revised Supplemental Exhibits were also filed on October 12, 2018.

On October 12, CWSNC filed the rebuttal testimony and exhibits of Company witnesses J. Bryce Mendenhall, Dylan D'Ascendis, and Dante DeStefano (no exhibits).

On October 15, 2018, CWSNC filed its Report on Customer Comments from Public Hearing in Asheville, North Carolina.

The evidentiary hearing was convened before the Full Commission on Tuesday, October 16, 2018. CWSNC presented its direct case, followed by the witnesses for the Public Staff, and then the Company presented its rebuttal testimony. The evidentiary hearing concluded the same day.

On October 17, 2018, CWSNC filed its Report on Customer Comments from Public Hearing in Boone, North Carolina.

On October 19, 2018, CWSNC and the Public Staff filed a Partial Joint Settlement Agreement and Stipulation in this docket.

On October 23, 2018, CWSNC filed a Response to Commissioner Clodfelter's request for a Late-Filed Exhibit addressing the Company's post-test year plant additions.

On October 25, 2018, CWSNC filed its Report on Customer Comments from Public Hearing in Raleigh, North Carolina.

On October 30, 2018, the Public Staff filed the Confidential Late-Filed Exhibit of Sonja R. Johnson and the Late-filed Exhibits of Gina Y. Casselberry.

On October 19, 2018, the Public Staff filed a Motion for Extension of Time whereby the Commission was requested to grant the Public Staff and all other parties an extension until Tuesday, November 27, 2018, to file Proposed Orders in this docket. On that same day, the Commission the Public Staff's Motion for Extension of Time.

On November 20, 2018, the Public Staff filed Casselberry Late-Filed Exhibits 3 through 9.

On November 21, 2018, the Public Staff filed Henry Revised Supplemental Exhibits I and II.

On November 27, 2018, CWSNC, the Public Staff, and the Attorney General's Office filed their respective Proposed Orders. The Corolla Light HOA did not file a Proposed Order. In conjunction with its Proposed Order, CWSNC filed the Affidavit of Anthony Gray regarding the Company's rate case expense and De Stefano Supplemental Exhibits I (Billing Analysis by Service Areas) and II (Calculation of Gross Revenue Impact of Company Adjustments).

WHEREUPON, on the basis of the Application; the Joint Partial Settlement Agreement and Stipulation; the public witness testimony; the testimony and exhibits of CWSNC witnesses DeStefano,[2] Mendenhall, D'Ascendis, and Clark, including the Company's late-filed exhibit; the testimony and exhibits of

[2] In addition to presenting his own rebuttal testimony, Company witness DeStefano adopted and presented the direct testimony initially filed by CWSNC witness Richard Linneman.

Public Staff witnesses Henry, Feasel, Johnson, Boswell, Hinton, and Casselberry, including the Public Staff's late-filed exhibits; the five Reports on Customer Comments from Public Hearings filed by the Company; and the entire record in this proceeding, the Commission now makes the following

FINDINGS OF FACT

General Matters

1. CWSNC is a corporation duly organized under the law and is authorized to do business as a regulated investor-owned water and sewer public utility in the State of North Carolina. The Company is subject to the regulatory oversight of this Commission. CWSNC provides water and sewer utility service to customers in 38 counties in North Carolina. CWSNC is a wholly-owned subsidiary of Utilities, Inc.[3] ("UI")

2. CWSNC is properly before the Commission pursuant to Chapter 62 of the General Statutes of North Carolina seeking a determination of the justness and reasonableness of its proposed rates and charges for its water and sewer utility operations.

3. As of the twelve-month period ending December 31, 2017, CWSNC served 34,871 water customers and 21,531 sewer customers, including CLMS, and 3,636 water and 1,224 sewer availability customers. CWSNC operates 93 water systems and 38 sewer systems in the State.

[3] Utilities, Inc. owns regulated utilities in 16 states which provide water and sewer utility service to approximately 197,732 customers.

4. The test period for this rate case is the 12-month period of time ended December 31, 2017, adjusted for certain known and actual changes in plant, revenues, and costs based upon circumstances and events occurring or becoming known through the close of the evidentiary hearing.

Customer Concerns and Quality of Service

5. The majority of customer comments at the public hearings dealt with objections to the rate increase and did not involve complaints about quality of service.

6. Some customers described the Company's service in positive terms and one customer, in Asheville, asserted that the service was "exceptional."

7. Customers' questions about the rate increase were addressed in the Company's Reports on Customer Comments from Public Hearings ("Reports") with explanations of investments made in those and other systems.

8. CWSNC has increased its attention to the communications component of service to customers since the last rate case, with an emphasis on more proactive communications and the launching of several social media platforms.

9. Any service complaints that were expressed were dealt with promptly and efficiently by the Company, as indicated in the Company Reports.

10. The Public Staff's description of the quality of service provided by CWSNC as "good" is supported by the record in this case.

11. As necessary and appropriate, the Company should continue to address improvement of secondary water quality in systems where discoloration

and particulates may be an impediment to provision of water that not only meets water quality standards, but also is acceptable to the customer.

12. Consistent with the statutory requirements of G.S. 62-131(b), the overall quality of service provided by CWSNC meets or exceeds the statutory standards of adequacy, efficiency, and reasonableness.

Joint Partial Settlement Agreement and Stipulation

13. On October 19, 2018, CWSNC and the Public Staff filed the Joint Partial Settlement Agreement and Stipulation.

14. The Joint Partial Settlement Agreement and Stipulation is the product of the give-and-take settlement negotiations between the CWSNC and the Public Staff (the "Stipulating Parties"), is material evidence in this proceeding, and is entitled to be given appropriate weight in this case, along with other evidence from the Company, the Public Staff, and intervenor parties, as well as testimony of public witnesses concerning the Company's Application.

15. The Joint Partial Settlement Agreement and Stipulation contains the provision that the Stipulating Parties agree that none of the positions, treatments, figures, or other matters reflected in the Agreement should have any precedential value, nor should they otherwise be used in any subsequent proceedings before this Commission or any other regulatory body as proof of the matters in issue.

16. The Joint Partial Settlement Agreement and Stipulation contains the provision that the agreements made therein do not bind the Stipulating Parties to the same positions in future proceedings, and the Parties reserve the right to take different positions in any future proceedings. The Agreement also contains the

provision that no portion thereof is binding on the Stipulating Parties unless the entire Agreement is accepted by the Commission.

Rate Case Contested Issues

Removal of Purchased Water and Purchased Sewer Treatment Expense from the Cash Working Capital Calculation

17. The calculation of the reasonable and appropriate level of cash working capital for use in setting new rates in this proceeding for CWSNC should include the Company's purchased water and sewer expenses. The Public Staff's proposal to exclude purchased water and sewer expense from such calculation is not justified under the facts of this case.

Adjustment to Exclude Insurance Premium Expenses Allocated to CWSNC from Utilities, Inc.

18. The Public Staff's proposed accounting adjustment to exclude $142,059 of automobile, workers compensation, and property insurance premiums (as allocated by Utilities, Inc., CWSNC's parent company) from CWSNC's cost of service in this case is unreasonable and inappropriate. It is reasonable and appropriate to allocate all of CWSNC's insurance expense in this case utilizing an allocation factor based on number of customers (customer count).

Adjustment Using Composite Utility Plant Depreciation Rates for Calculating Contributions in Aid of Construction ("CIAC") and Purchase Acquisition Adjustment ("PAA") Amortization Expense

19. The Public Staff's proposed accounting adjustment in the amount of $333,945 to the Company's CIAC and PAA amortization expense, which would

exclude a legitimate expense from CWSNC's cost of service in this case, is unreasonable and inappropriate. It is reasonable and appropriate to adopt and utilize the Company's proposed methodology to determine CIAC and PAA amortization expense for purposes of establishing new rates in this case.

Adjustment to Reduce Executive Compensation and Benefits, and Related Payroll Taxes, by Fifty Percent

20. It is unreasonable and inappropriate to allocate to shareholders fifty percent (50%) of the compensation, pensions, and benefits of three Utilities, Inc. "executives," consisting of $92,359 in compensation and $16,468 in pensions and benefits. The Public Staff's proposed accounting adjustment in the total amount of $108,747 would exclude a legitimate expense from CWSNC's cost of service in this case.

21. It is unreasonable and inappropriate to remove fifty percent (50%) of payroll taxes in the amount of $2,920 to match the adjustment to salaries and wages related to executive compensation. This adjustment would exclude a legitimate expense from CWSNC's cost of service.

Consumption Adjustment Mechanism

22. CWSNC's proposed Consumption Adjustment Mechanism ("CAM") is an appropriate regulatory tool for equitably managing fluctuations in consumption that vary significantly from the projected level of consumption that is used to set rates.

23. Overall, the trend in the water utility industry is one of declining consumption.

24. There are fluctuations in water consumption patterns that can result in higher short-term periods of consumption.

25. Accurate rate design requires determination of accurate water consumption. A rate setting process that consistently understates water consumption is flawed and unfair to customers; similarly, one that relies on overstated consumption is unfair to the utility.

26. The Commission has the inherent authority to find implementation of a consumption adjustment mechanism to be in the public interest in this case. The Commission can address all issues concerning the mechanism by employing a rulemaking procedure to determine---with the participation of all interested parties---how the mechanism should function.

The Federal Tax Cuts and Jobs Act

27. The new rates approved in this proceeding reflect and incorporate the current federal corporate income tax rate of 21% contained in the Federal Tax Cuts and Jobs Act ("Federal Tax Act"). It is reasonable and appropriate to establish new rates on that basis.

28. The Public Staff and CWSNC, pursuant to Section III, Paragraph G of the Partial Joint Settlement Agreement and Stipulation, agree that protected federal excess deferred income taxes ("EDIT") will be flowed back over a 45-year period using the Reverse South Georgia method, in accordance with Internal Revenue Service ("IRS") tax normalization rules as required by IRS Code Section 203(e). This provision of the partial settlement is reasonable and appropriate.

29. The Public Staff's recommendation that the Federal Tax Act should automatically trigger a refund to customers of the impact of the change in federal corporate tax rates is not appropriate under the facts of this case. In consideration of CWSNC's unique situation, it is reasonable and appropriate for the Commission to conduct a review of the Company's financials in this rate case to determine whether—and if so, how much of—a refund is warranted.

30. Conducting a review of the Company's financials to determine whether the Company was over-earning its adjusted revenue requirement, as decided in this case relative to its previously-authorized revenue requirement, is reasonable and appropriate as a structured and rational basis upon which to assess the justification and necessity of any refund. In consideration of such review, a refund of Review Period revenues related to the higher federal income tax rate is neither warranted nor justified, in view of the fact that CWSNC's authorized adjusted revenue requirement in this proceeding exceeds that which was approved in the Company's most recent prior rate case.

31. The Company's proposal to offset state and federal unprotected EDIT balances due to customers against deferred assets is a reasonable, workable, and fair regulatory mechanism. That being the case, the Public Staff's proposed EDIT Rider is unnecessary.

Capital Structure and Cost of Capital Issues

32. The Joint Partial Settlement Agreement and Stipulation filed in this docket on October 19, 2018, by CWSNC and the Public Staff, regarding the reasonableness of the stipulated capital structure and cost of long-term debt,

adequately supports approval of a reasonable and appropriate capital structure consisting of 49.09% long-term debt and 50.91% common equity and a cost of long-term debt of 5.68% for the Company. The testimony of CWSNC witness D'Ascendis supports and justifies approval of a cost of common equity of 11.20% for the Company in this proceeding. This capital structure and the approved costs for long-term debt and equity are just and reasonable and appropriate for use in setting rates in this proceeding. Accordingly, the just, reasonable, and appropriate components of the rate of return for CWSNC are as follows:

a. Long-Term Debt Ratio	49.09%
b. Common Equity Ratio	50.91%
c. Embedded Cost of Debt	5.68%
d. Return on Common Equity	11.20%
e. Overall Weighted Rate of Return	8.49%

33. The authorized levels of the overall rate of return and rate of return on equity set forth above are supported by competent, material, and substantial record evidence, are consistent with the requirements of G.S. 62-133, are fair and reasonable, and will not cause unnecessary hardship to the Company's customers in light of changing economic conditions or otherwise.

Rate Design Issues and Metered Water Rate Design Structure

34. It is reasonable and appropriate to utilize CWSNC's proposed metered water rate design structure for purposes of designing rates in this proceeding consisting of 53% fixed revenues for the base facility charge and 47% variable revenues for the commodity or usage charge. This rate design will help to limit the Company's documented and demonstrated challenge which results from consistently declining consumption by customers. The rate design approved

herein represents a fair and reasonable balance for recovery of fixed and variable costs. It is fair and reasonable to both CWSNC and its customers. The other rate design proposals approved by the Commission, as discussed hereinafter in conjunction with this finding of fact, are fair and reasonable.

35. It is reasonable and appropriate in this proceeding for the current, system-specific sewer rates for the CLMS service area to remain unchanged from those established in Docket No. W-354, Subs 327, 336, 344, and 356 and for CWSNC's remaining CLMS revenue sewer requirement to be recovered through its Uniform Sewer Rates for other service areas. In future general rate case proceedings, the issue of rate disparity should be reviewed again by CWSNC, the Public Staff, and any other interested party, and appropriate consideration should be given to moving the CLMS service area toward uniform rates in light of the facts and circumstances that exist at that time.

36. The Company's Elk River water and sewer service area is subject to the rate increase proposed in this docket. The Elk River service area is included in CWSNC's Uniform Water and Sewer Rate Divisions.

CWSNC's Request for Deferral Accounting Treatment of Costs Related to Hurricane Florence

37. Pursuant to Paragraph III.H of the Joint Partial Settlement Agreement and Stipulation, CWSNC agreed to withdraw its request that deferral accounting treatment of costs related to Hurricane Florence be authorized by the Commission in this case and that amortization of such prudently-incurred costs be addressed in the Company's next general rate case. The Company will refile

its request for deferred accounting for prudently-incurred, hurricane-related costs and lost revenues in a separate docket.

Ratemaking and Revenue Requirement Issues

38. It is reasonable and appropriate to determine the revenue requirement for CWSNC using the rate base method as allowed by G.S. 62-133.

39. By its Application, CWSNC requested a total annual revenue increase in its water and sewer rates of $4,405,535, a 13.52% increase over the total revenue level generated by the rates currently in effect for the Company. For the CWSNC Uniform Water Rate Division, the proposed tariffs are designed to produce additional gross revenues of $2,485,612, a 14.64% increase over the total revenue level generated by the rates currently in effect for that Rate Division. For the CWSNC Uniform Sewer Rate Division, the proposed tariffs are designed to produce additional gross revenues of $1,022,180, a 7.99% increase over the total revenue level generated by the rates currently in effect for that Rate Division. For the Bradfield Farms/Fairfield Harbour/Treasure Cove Water Rate Division ("BF/FH"), the proposed tariffs are designed to produce additional gross revenues of $511,341, a 47.64% increase over the total revenue level generated by the rates currently in effect for that Rate Division. For the Bradfield Farms/Fairfield Harbour/Treasure Cove Sewer Rate Division, the proposed tariffs are designed to produce additional gross revenues of $386,403, a 22.03% increase over the total revenue level generated by the rates currently in effect for that Rate Division.

40. CWSNC's total original cost rate base used and useful in providing service to its customers is $115,086,005 for combined operations, consisting of

$60,668,192 for CWSNC Uniform Water Operations; $43,683,924 for CWSNC Uniform Sewer Operations; $3,461,055 for Bradfield Farms/Fairfield Harbour Water Operations; and $7,272,834 for Bradfield Farms/Fairfield Harbour Sewer Operations.

41. The levels of operating revenues under present rates appropriate for use in this proceeding are $17,022,057 for CWSNC Uniform Water operations; $12,721,070 for CWSNC Uniform Sewer operations; $1,074,106 for Bradfield Farms/Fairfield Harbour Water operations; and $1,758,234 for Bradfield Farms/Fairfield Harbour Sewer operations, for a total level of operating revenues for combined operations of $32,575,467.

42. The overall levels of operating and maintenance expenses under present rates appropriate for use in this proceeding are $9,606,907 for CWSNC Uniform Water operations; $7,208,022 for CWSNC Uniform Sewer operations; $920,564 for Bradfield Farms/Fairfield Harbour Water operations; and $1,205,883 for Bradfield Farms/Fairfield Harbour Sewer operations, for a total level of operating and maintenance expenses under present rates for combined operations of $18,941,377.

43. Accumulated depreciation consists of the following balances for water and sewer operations:

CWSNC Uniform Water Operations:	$27,471,271
CWSNC Uniform Sewer Operations:	$21,353,928
BF/FH Water Operations:	$ 1,625,325
BF/FH Sewer Operations:	$ 2,504,593

44. Contributions in aid of construction ("CIAC"), reduced by accumulated amortization of CIAC, consist of the following amounts for water and sewer operations:

CWSNC Uniform Water Operations:	$18,419,357
CWSNC Uniform Sewer Operations:	$18,442,146
BF/FH Water Operations:	$ 1,095,675
BF/FH Sewer Operations:	$ 4,226,230

45. It is reasonable and appropriate for CWSNC to recover total rate case expenses of $829,540, consisting of $395,480 related to the current proceeding and $434,060 of unamortized rate case expense from prior proceedings, to be amortized and collected over a five-year period, for an annual level of rate case expense of $165,908.

46. It is reasonable and appropriate to use the current statutory regulatory fee rate of 0.14% to calculate CWSNC's revenue requirement.

47. It is reasonable and appropriate to use the current state corporate income tax rate of 3% and the applicable federal corporate income tax rate of 21% to calculate CWSNC's revenue requirement.

48. The rates approved by the Commission will provide CWSNC with an increase in its annual level of authorized service revenues through rates and charges approved in this case by $2,865,404, consisting of an increase for Uniform Water Operations of $1,231,057, an increase for Uniform Sewer Operations of $828,689, an increase for BF/FH Water Operations of $331,690, an increase for BF/FH Sewer Operations of $473,968, and no change in revenues for the CLMS area. After giving effect to these authorized increases in water and

sewer revenues, the total annual operating revenues for the Company will be $35,440,871, consisting of the following levels of just and reasonable operating revenues:

Uniform Water Operations	$18,253,114
Uniform Sewer Operations	$13,549,791
BF/FH Water Operations	$ 1,405,796
BF/FH Sewer Operations	$ 2,232,202

Water and Sewer System Improvement Charge Rate Adjustment Mechanisms

49. CWSNC's right to charge a Water System Improvement Charge ("WSIC") and Sewer System Improvement Charge ("SSIC") was initially granted by the Commission in Docket No. W-354, Sub 336 by Order issued March 10, 2014. With the exception of CLMS customers, the remainder of CWSNC's post-merger customers are subject to the Application in this general rate case. Therefore, the Company's Commission-authorized WSIC/SSIC Mechanisms will, with the exception of CLMS customers, hereinafter apply to all other customers served by CWSNC, including those customers incorporated into the Company as a result of the Commission-authorized 2016 corporate merger.

50. Pursuant to Commission Rules R7-39(k) and R10-26(k), the WSIC and SSIC charges presently in effect are reset at zero as of the effective date of this Order.

51. The Ongoing WSIC/SSIC Three-Year Plan filed in this docket by CWSNC on May 30, 2018, is reasonable and meets the requirements of Commission Rules R7-39(m) pertaining to WSIC and R10-26(m) pertaining to SSIC.

Schedules of Rates

52. The Schedules of Rates (attached hereto as Appendices A-1, A-2, A-3, and A-4) for CWSNC water and sewer utility service and the Schedules of Connection Fees for CWSNC Uniform Water and Uniform Sewer (attached hereto as Appendices B-1 and B-2), are just and reasonable and are approved.

WHEREUPON, the Commission reaches the following

CONCLUSIONS

The evidence in support of the following findings of fact and conclusions is contained in the Application; the Joint Partial Settlement Agreement and Stipulation; the public witness testimony; the testimony and exhibits presented by CWSNC witnesses DeStefano, Mendenhall, D'Ascendis, and Clark, including the Company's late-filed exhibit; the testimony and exhibits of Public Staff witnesses Henry, Feasel, Johnson, Boswell, Hinton, and Casselberry, including the Public Staff's late-filed exhibits; the Reports on Customer Comments from five Public Hearings filed by the Company; and the entire record in this proceeding.

EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NOS. 1 – 4
(General Matters)

The evidence supporting these findings of fact is contained in the Application, the testimony and exhibits of the Company and Public Staff witnesses, and the Partial Settlement Agreement and Stipulation. These findings of fact are essentially jurisdictional and procedural in nature and are based on uncontested evidence.

EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NOS. 5 - 12
(Customer Concerns and Quality of Service)

The evidence for these findings of fact and the following conclusions regarding quality of service and customer concerns is contained in the Application; the Joint Partial Settlement Agreement and Stipulation; the testimony and exhibits of CWSNC witnesses Mendenhall and Clark and Public Staff witness Casselberry; the testimony offered at the public hearings by customers; the entire record in the proceeding; and the CWSNC Reports on Customer Comments from Public Hearings held in:

- New Bern and Wilmington, North Carolina, filed on September 9, 2018;
- Charlotte, North Carolina, filed on October 4, 2018;
- Boone, North Carolina, filed on October 17, 2018;
- Asheville, North Carolina, filed on October 15, 2018; and
- Raleigh, North Carolina, filed on October 25, 2018

Summary of Public Staff Testimony

Witness Casselberry, an experienced Public Staff engineer, addressed customer service in both her investigation and in her supplemental testimony in the case, the latter of which focused on customer concerns and witness testimony at the public hearings.

Witness Casselberry testified that the Public Staff reviewed approximately 64 position statements from CWSNC customers. The service areas represented and the number of witnesses from each were: Abington (1); Amber Acres North (1, and a petition with 27 signatures); Bradfield Farms (3, including a resolution objecting to the rate increase from the Bradfield Farms Homeowners Association, Board of Directors and a petition with approximately 263 signatures); Brandywine Bay (9); Carolina Pines (1); Carolina Trace (13); Connestee Falls (3); Elk River (1); Fairfield Harbour (12); Fairfield Mountain (2); Linville Ridge (1); Nags Head (1); Queens Harbor (1, including a petition with approximately 100 signatures); The Ridges at Mountain Harbor (4); The Villages at Sugar Mountain (1); Wood Haven/Pleasant Hill (2); and several unspecified service areas (8).

All customers objected to the magnitude of the increase. Their primary concerns were the high rate of return, the increase in the rates compared to inflation, the impact of the new federal tax act, and their rates compared to local municipalities. Many stated that the Company provided no justification for the rate increase and some questioned the high base facility charge. Customers in Linville Ridge and The Ridges at Mountain Harbor ("The Ridges") requested metered rates now that all the customers have meters. Customers in Carolina Trace complained that only the base charge for water was increasing. Customers in Abington, Fairfield Harbor, Brandywine Bay, and Queens Harbor complained of the hardness of the water and discoloration.

Witness Casselberry addressed some of the principal service and rate-related concerns that were repeated by customers across their written and testimonial complaints in this proceeding. They include:

<u>Rate Comparison between Private Utilities and Municipalities</u>: Witness Casselberry testified that it is inappropriate to compare the rates of private, Commission-regulated utilities like CWSNC to either municipalities or county systems due to the following factors:

- Differences in economies of scale. These vary widely from scattered, groundwater systems like CWSNC's compared to a municipality with surface impoundments or river sources, and a dense population profile. CWSNC serves approximately 30,000 water customers and 20,000 sewer customers, operating 92 water systems and 38 sewer systems, from the mountains to the coast. Compare to Charlotte's utility, for example—a regional supplier of drinking water which serves over 834,000 customers in one county.

- Sources of water. The vast majority of CWSNC's water production is through a series of wells, utilizing ground water. The majority of North Carolina municipalities utilize surface water such as rivers or impoundments. Depending on the size of the service area, CWSNC may have dozens of wells throughout a service area. A single well might pump 20 gallons per minute (28,800 gallons per day). Contrast that with a treatment facility like that in Sanford, which produces on average of seven million gallons per day from its abundant supply---the Cape Fear River. Witness Casselberry observes that the water sources differ among providers.

- Operational differences. The types of treatment, equipment, personnel and operating expenses are different.

- Regulation. Private utilities are regulated by the North Carolina Utilities Commission, which is charged by statute with allowing a utility the opportunity to recover its operational expenses and a reasonable rate of return. Municipal or county systems are not regulated by the Commission and may subsidize the operating expenses of their utility systems.

- Funding. Private utilities fund capital projects through private investors or loans. Municipalities and county systems may qualify for low-interest, tax-free bonds and other loans to fund capital projects.
- Rate of Return. North Carolina law give private utilities the right to earn a rate of return on their investment and to recover their prudently incurred operating expenses.

Justification for the Rate Increase: Noting that CWSNC asserts a need to recover its investment for capital improvements, witness Casselberry testified that within the last six (6) months, CWSNC spent approximately $4,472,131 on capital projects.

Metered Rates for Linville Ridge and The Ridges: Public Staff recommends uniform metered water rates for Linville Ridge and The Ridges. The Public Staff also recommends purchased sewer rates for The Ridges[4].

In addition to the summaries of and responses to public witness testimony made by the Company, summarized below, witness Casselberry made the following additional service-related observations:

[4] The Company agrees with these recommendations.

- In Docket W-778, Sub 88, prior to the merger with CWSNC, the Public Staff requested that CWS Systems, Inc. ("CWSS") investigate the cost to install a central treatment system for hardness for the Fairfield Harbour service area. On April 28, 2011, CWSS filed its report with the Commission. Based on the report submitted, the estimated cost was $912,000, not including engineering or required permits. Ms. Casselberry recalled that the Fairfield Harbour Property Owners Association ("FHPOA") Board considered: (1) that most of the residential customers already had individual water softeners; and (2) the impact on rates of a central system. On June 22, 2011, the Board notified the Commission that it would defer its decision to a later date. The Public Staff does not recommend a central treatment system for hardness at this time;
- Witness Casselberry noted the Company stated that it has a flushing program in place and seeks to improve it;
- Addressing the opposition from some Carolina Trace customers to uniform rates and to their suggestions for smaller rate divisions, witness Casselberry opined that uniform rates increase the economies of scale. As a result, this reduces the cost per customer, especially regarding rate case expenses and large capital improvements, such as replacing water or sewer mains or upgrading wastewater treatment plants.

Witness Casselberry concluded her testimony by addressing CWSNC's service quality:

> It is the Public Staff's opinion that with the exception of a few isolated service issues which the Company has addressed or is in the process of resolving, <u>the quality of service has improved since the last general rate case and is overall good</u>. It is also the Public Staff's opinion that water quality meets the standards set forth by the Safe Drinking Water Act and is satisfactory. *Tr. Vol. 8, p. 333, line 20 - p. 334, line 3* (emphasis added).

<u>Summary of Customer Concerns and CWSNC Responses</u>

The Company's five verified reports, filed in response to the customer comments expressed at six public hearings, addressed specifically the testimony of each witness. Those reports also provided comprehensive explanations of the reasons for rate disparities among various providers of water and wastewater services, as well as explanations of the ratemaking process, the requirements of cost of service ratemaking, and the nature of the strict regulatory oversight that protects customers.

Of the ten (10) witnesses who testified in New Bern, eight (8) were from Fairfield Harbour and one each from Brandywine Bay and Carolina Pines. Each witness expressed concern about the rate increase, others addressed hardness, and/or water quality issues and discoloration. The Company responded to the water hardness issue by noting that it is a function of the level of calcium ions in the source water, that it is not a matter subject to regulation, that many customers either have already made or wish to make their own arrangements for water softening, and that CWSNC leaves that matter to its customers' discretion. CWSNC observed the disinclination of some customers to pay for (i.e., subsidize) water softening services for other customers. CWSNC also described its vigorous flushing protocol, which is designed to address matters of discoloration and particulate. The imperative for rate increases, when the need is demonstrated after a comprehensive audit by the consumer advocate, was explained by the Company. CWSNC focused its comments on the capital-intensive nature of the regulated water and wastewater industry, and on the obligation to maintain safe and reliable service. CWSNC quoted from published reports that indicate a need for billions of dollars of investment in water and wastewater infrastructure within North Carolina. Finally, the fallacy of comparing rates among different kinds of providers was explained by the Company, noting that the actual costs to serve vary by provider and system, and that companies regulated by the Commission are required to prove their actual cost of service, in the face of skilled examination and audits by the Public Staff and a rigorous review by the Commission and its staff.

One Belvedere-system witness appeared at the Wilmington hearing. He objected to the rate increase, particularly so soon after the last one, and he complained of stains on his clothes caused by the water. The Company indicated it seeks to improve its flushing program to address water quality concerns.

Ten (10) customer witnesses testified in Charlotte, including seven (7) witnesses from the Bradfield Farms community, one from the Hemby Acres community, and two from the Yachtsman ("Queens Harbor") community. Generally, customers who testified expressed concern about: (1) the proposed percentage increase in rates; and/or (2) water quality in terms of particulate and hardness issues. Some objected to the rate design and others compared CWSNC's rates unfavorably to those in other jurisdictions—including government-owned systems, such as Union County. Again, the Company addressed all these issues in the General Response part of its Report, filed in this docket on October 4, 2018.

CWSNC noted that Union County is afforded the ability to structure utility fees according to the economies of scale associated with a larger customer base. In contrast, CWSNC's fees for service are based upon the usage of the customers and the rates for wastewater approved for this community. The absence of service or quality complaints at the Charlotte hearing—except for some concerns about water hardness—is notable.

Four (4) witnesses testified in Boone, including one (1) witness from the Ski Mountain Acres community, two (2) from the Elk River community, and one (1) from the Hound Ears community. As at the other hearings, witnesses focused on the proposed percentage increase in rates. To a lesser extent, they spoke about water quality, and some wanted to know what investments supported the rate increase request.

The spokesperson for the Ski Mountain Acres Property Owners' Association ("POA") described the water quality and level of service as good: his objection was to the rate increase. The Company explained that in the Ski Mountain Acres community, CWSNC's recent investments in the water system included: (1) fire hydrant replacements and repairs; (2) meter installations; (3) pump replacements; (4) pressure reduction valve installations; (5) daily required chemical treatments; and (6) multiple water main repairs, including the associated paving of roads, required tests, and inspections. The frequency of boil water notices was discussed, and the Company explained that breaks and leaks are often a function of the extreme cold in the region. Additionally, the water distribution system is an old and aging asset that will have to be repaired, rehabilitated, or replaced in the future.

In the Elk River system, one particular water quality complaint was explained as likely being "red algae," which may occur when water remains in the lines over the winter. In response to objections to the rate increase from two Elk River customers, the Company responded that recent investments to the water system in that community have included: (1) fire hydrant replacements and repairs; (2) automatic meter reading ("AMR") installations; (3) pump replacements; (4) pressure reduction valve installations; (5) daily required chemical treatments; and (6) water main repairs, including associated paving of roads, required tests, and inspections. The wastewater system investments at Elk River included: (1) pump installations; (2) valve replacements; (3) maintenance of the collection system; and (4) required testing and inspections. Much of the sewer capital investment is attributed to new blowers, motors, variable frequency drives ("VFDs"), and a generator and transfer switches that were installed at the wastewater treatment plant. In addition to the blowers, a new air header and air diffusers were also installed to replace the aging equipment.

The representative of the Hound Ears Club and Fox Club communities conceded that the systems were old and main breaks were a part of the experience. He cited to a great relationship with the Company and to good service, noting that his only complaint was about the rate increases. The

Company responded that it is completing an 8-inch water main replacement project associated with the Shulls Mill Road bridge replacement work. The purpose of the capital project is to replace the existing 6-inch PVC water main that is over 40 years old. Additionally, in the Hound Ears community, the investments to the water system have included: (1) fire hydrant replacements and repairs; (2) pump replacements; (3) pressure reduction valve installations; (4) daily required chemical treatments; and (5) water main repairs, including nine associated road paving projects, required tests, and inspections. The wastewater system investments within the Hound Ears community included: (1) pump installations; (2) valve replacements; (3) maintenance of the collection system; and (4) required testing and inspections. Much of the sewer capital investment is attributed to sewer gravity replacements, lift station pump replacements, blower motors, electrical controls, a new effluent weir flow basin, and a new generator.

In Asheville, five (5) witnesses testified, including two (2) witnesses from the Fairfield Mountain of Lake Lure community, two (2) from the Mt. Carmel community and one (1) from the Woodhaven community. All customers who testified expressed concern about the proposed percentage increase in rates.

A witness from Fairfield Mountain complained about a pothole in the road caused by a leak, which he said took the Company six months to fix. CWSNC responded that a fire hydrant tee was leaking, the leak was repaired on January 16, 2018, and paving for the repair was completed on or before January 31, 2018.

Repairs to the Fairfield Mountain water system included: (1) meter repairs and installations; (2) pump replacements; (3) daily required chemical treatments; and (4) water main repairs, including associated paving of roads, required tests, and inspections. Upon inquiry about the nature of any investments that would support a rate increase, the Company reported it recently completed a major capital project within the community. The Apple Valley Radium Treatment System capital project was a $325,000 radium treatment system, concluded in August 2018. The purpose of this capital project was to install a permanent treatment system to remove radium from Apple Valley Well No. 8. The treatment consists of softening by ion exchange using two 36" diameter softeners and one 50" diameter brine tank. Other work performed included the addition of a new well/filter building, well pump, booster pumps, associated piping, new electrical installation, and the addition of a 15,000-gallon back wash tank. The Company has worked closely with POA Member Helen Martin for approximately two (2) years regarding the design, construction, and implementation of this capital project.

Additional investments included approximately $112,000 in expenditures for general maintenance of the sewer collection system within the Mt. Carmel community. More specifically, in 2018, the Company completed a $172,000 collection system rehabilitation capital project. The problems with drainage and line flushing in Mt. Carmel are to be the subject of an upcoming capital project.

Finally, though objecting to the rate increase, the witness from Woodhaven commended several employees of the Company for providing exceptional service and responding to problems efficiently and effectively.

The Raleigh hearing drew five (5) witnesses, including two (2) witnesses from Carolina Trace; two (2) from Amber Acres; and one (1) from Jordan Woods. All objected to the rate increase. An Amber Acres customer testified she had seen no improvement in service that would warrant a rate increase, that the Company could be more efficient, and that she opposed flat rate sewer. The Company will follow up on the customer's suggestion that water and wastewater bills be combined, rather than mailed separately. The Company reported the following recent investments in the Amber Acres water system: (1) meter installations; (2) pump replacements; (3) pressure reduction valve installations; (4) daily required chemical treatments; and (5) multiple water main repairs, including the associated paving of roads, required tests, and inspections.

The Jordan Woods customer reported that his bill was 70% higher after the last rate increase. Company investigation and report revealed that his monthly base charge for water service for 2017 was $11.44 and, after the Commission's Order in the Company's 2017 rate case, it was $24.44 per month for 2018. In addition, according to Company records, the customer's average monthly consumption increased from 2,798 gallons in 2017 to 3,011 in 2018. CWSNC's recent investments in the Jordon Woods water system included: (1) meter installations; (2) pump replacements; (3) pressure reduction valve installations;

(4) daily required chemical treatments; and (5) multiple water main repairs, including the associated paving of roads, required tests, and inspections.

The most extensive Raleigh testimony came from the Utilities Representative of Carolina Trace. He:

- Noted the good working relationship with CWSNC's local employees;
- Expressed concern about communications with "headquarters" and about the incidence of Boil Water Notices;
- criticized the Company's practice of adjusting charges for wastewater with respect to commercial pools, but not for residential pool owners;
- expressed eagerness for the GPS mapping project to be completed so that all manholes are located;
- criticized the "uniform rate system" and recommended that the uniform rate communities be reorganized into smaller, more similar groups;
- noted an inability to understand the Company's proposed Consumption Adjustment Mechanism ("CAM"); and
- criticized higher base rates as a component of rate design, indicating that this "guarantees" the Company a net profit regardless of performance; and
- requested the Commission reject the request, noting it is the second request within a year.

CWSNC described the Company's efforts to minimize Boil Water notices; the Company claims it does not object to the concept of giving a sewer credit to residential pool owners (though it did object to the Carolina Trace witness's preferred procedure); and CWSNC continues to work on mapping the system components. The Company reiterated its support for the consolidation of rates, explaining that it facilitates efficiencies in the administration of the Company, allowing for spreading of the overhead costs across systems. The Company described the proposed CAM as an effort to protect both customers and shareholders from extremes of consumption, in either direction. Finally, whether a rate design has a higher or a lower base facilities charge, it is designed to allow for the revenue recovery that is authorized by the Commission. Some customers prefer a higher fixed charge and a lower volumetric charge, while others favor the opposite.

<u>Summary of Additional Company Testimony</u>

CWSNC witness Clark explained CWSNC's success with its increased efforts to engage with and improve customers' overall interaction and experience with CWSNC. She testified that customer engagement has improved through the development and implementation of a variety of community outreach approaches. The Company implemented multiple new social media and other types of communication—from Facebook, Twitter, Instagram, and "Carolina Water Drop" podcasts, to bill inserts, phone calls, and face-to-face meetings. She described a program of attendance at homeowners' association and property-owners' association meetings and the design of a series of free Word Press sites with information about service, personnel, projects and usage tips, as well as her involvement in resolving customer concerns about service and other matters. Witness Clark's testimony addressed the nexus between adequate service and clear, robust communications between the utility and its customers.

Commission Conclusions

1. Based upon review of all the testimony in the record, the Commission concludes that CWSNC's level of service has improved since the last rate case, both with respect to water quality and customer communications.

2. Based upon Public Staff witness Casselberry's testimony and other evidence of record, the Commission also finds that the service provided by CWSNC is "good." Thus, we conclude that, consistent with the statutory requirements of G.S. 62-131(b), the overall quality of service provided by CWSNC meets or exceeds the statutory standards of adequacy, efficiency, and reasonableness.

EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NOS.13 - 16
(Joint Partial Settlement Agreement and Stipulation)

The evidence supporting these findings of fact is contained in the Joint Partial Settlement Agreement and Stipulation and in the testimony of Company and Public Staff witnesses. No party filed a formal statement or testimony indicating opposition to the Stipulation; however, the Attorney General did pursue cross-examination of Company and Public Staff witnesses at the hearing of this matter on contested, non-stipulated issues related to matters such as rate of return, the Federal Tax Act, and the Company's request for deferral of costs related to Hurricane Florence. The Intervenor Corolla Light HOA's participation raised no issue regarding the Stipulation. The Stipulation is binding as between CWSNC and the Public Staff, and conditionally resolves certain specific matters in this case as between those two parties. Through the end of the evidentiary process, the Attorney General and Intervenor Corolla Light HOA neither approved nor overtly disapproved of the partial settlement regarding the specific settled issues reflected in the terms of the Stipulation. There are no other parties to this proceeding.

Under North Carolina law, a stipulation entered into by less than all parties in a contested case proceeding under Chapter 62 "should be accorded full consideration and weighed by the Commission with all other evidence presented by any of the parties in the proceeding." State ex rel. Utilities Commission v. Carolina Utility Customers Association, Inc., 348 N.C. 452, 466, 500 S.E. 2d 693, 703 (1998). Further, "[t]he Commission may even adopt the recommendations or provisions of the nonunanimous stipulation as long as the Commission sets forth its reasoning and makes 'its own independent conclusion' supported by substantial evidence on the record that the proposal is just and reasonable to all parties in light of all the evidence presented." Id.

The Commission concludes, based upon all the evidence presented, that the Joint Settlement Agreement and Stipulation was entered into by the Stipulating Parties after full discovery and extensive negotiations and represents a reasonable and appropriate proposed negotiated resolution of certain specific matters in dispute in this proceeding and that neither the Attorney General nor

Intervenor Corolla Light HOA have voiced any overt opposition thereto. Accordingly, the Commission finds good cause to approve the Joint Partial Settlement Agreement and Stipulation filed by CWSNC and the Public Staff in its entirety and to incorporate the provisions thereof herein by reference.

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 17
(Removal of Purchased Water and Purchased Sewer Treatment Expense from the Cash Working Capital Calculation)

Summary of Public Staff Testimony

Public Staff witness Henry[5] testified that cash working capital provides CWSNC with the funds necessary to carry the day-to-day operations of the Company. In its calculation, the Public Staff included 1/8th of total adjusted Operating and Maintenance ("O&M") and General and Administrative ("G&A") expenses, less purchased water and sewer expense, as a measure of cash working capital to be included in rate base.

On cross-examination, witness Henry testified that the Public Staff's methodology for determining cash working capital includes primarily cash-type expenses. He acknowledged that the Company, in its rebuttal testimony, has proposed and requested that purchased water and sewer expenses be included in the calculation of cash working capital in this proceeding. When asked why the Public Staff does not include purchased water and sewer expenses as part of its calculation of cash working capital, witness Henry testified that he had performed a lot of research on that issue, but was unable to find the exact reason for why

[5] Witness Henry adopted and presented the testimony which was initially prefiled by Public Staff witness Lynn Feasel.

those expenses were excluded, although they had been excluded by the Public Staff for years, including in the electric and natural gas industries. Witness Henry then hypothesized that the reason behind the exclusion is that, in general, there is no lag time between the time the service is being provided and the purchased water and sewer costs are being paid for by the Company. However, he then added, “But I don't know that for sure.”

Witness Henry further testified on cross-examination that water and sewer utilities can apply for a pass-through rate adjustment to have their rates adjusted for increases that local municipalities charge for the cost for purchased water and sewer. When asked whether, as a general rule, there was still a lag in pass-through recovery, witness Henry responded that the Public Staff usually turns those pass-through update filings around “pretty quickly.” He stated that, for instance, if a utility knows that a municipality is going to increase rates in June, the utility can actually apply for that rate increase in June and “probably” have those rates in effect in July. Nevertheless, witness Henry conceded that there is regulatory lag with pass-through applications, but that it is not as long as a general rate case.

More importantly, witness Henry acknowledged that pass-through applications are never approved by the Commission to become effective on the actual effective date of the wholesale supplier’s rate increase, but, instead, are approved effective as of the date of the Commission’s Order. In response to a question on cross-examination, witness Henry stated that he was unaware as to whether or not pass-through procedures only apply to purchased water and sewer systems where 100 percent (100%) of the commodity, water or sewer, is purchased; however, he accepted that premise subject to check. He further testified that he was not sure and did not know whether a utility which, hypothetically, purchased only 50% of its water supply from a wholesale supplier could use the pass-through process for that part of its supply.

On redirect, witness Henry testified that the Public Staff has been consistent in how it calculates cash working capital from rate case to rate case during the period of time he has been employed by the Public Staff.

Summary of Company Testimony

CWSNC witness DeStefano testified on rebuttal that the Company does not agree with the Public Staff's calculation of cash working capital. Witness DeStefano stated that the Company accepts the commonly-used method of applying a 1/8th factor to operating and maintenance expenses. However, he further stated that it is improper to remove purchased water and sewer expenses, as they are cash expenses (as opposed to non-cash expenses such as amortization and depreciation). As these expenses are invoiced and expensed with cash instrument payments, they are no different in nature from the remaining operating and maintenance expense items. Presumably, purchased water and sewer treatment expenses are excluded as there is currently a means to prospectively update recovery levels between base rate cases. However, witness DeStefano testified that this is only true for a portion of such expenses incurred by the Company (i.e., only those systems that are supplied by 100% purchased water or sewer) and is only accomplished with a change in rate recovery *after* the increase in expense has been experienced by the Company. Therefore, witness DeStefano stated that the Company requested that purchased water and purchased sewer treatment expenses be included in the cash working capital calculation in this proceeding.

Commission Conclusions

By its testimony, the Public Staff stated that its calculation of the appropriate level of cash working capital to be included in this proceeding for CWSNC excluded purchased water and sewer expense actually incurred by the Company. CWSNC disagreed with the Public Staff's methodology and asserted that its purchased water and sewer expense should be included as part of the calculation of cash working capital in this case.

G.S. 62-133.11(a) authorizes the Commission to permit water and sewer utilities to adjust their rates to reflect changes in costs based solely upon changes in rates imposed by third-party suppliers of purchased water or sewer service, including applicable taxes and fees. Subsection (c) of that statute provides that the Commission must issue an Order approving, denying, or approving with modification a proposed pass-through rate adjustment within 60 days of the date of filing of a completed petition, unless that time is for good cause shown extended up to a maximum of 90 days.

The Commission concludes that CWSNC's position on this issue is reasonable and appropriate and should be utilized to calculate the Company's cash working capital for purposes of setting rates in this proceeding. The Commission reaches this conclusion for the following reasons.

First and foremost, the Commission agrees with CWSNC witness DeStefano that the Company's purchased water and sewer expenses are cash expenses which are no different from the other cash-type O&M and G&A expenses traditionally included by the Public Staff in its cash working capital calculation. The Commission is of the opinion that the Company's recommended methodology is more comprehensive than the Public Staff's recommendation and that it more accurately reflects CWSNC's ongoing level of cash working capital needs. Regardless of the opportunity the Company has to update its recovery level due to cost increases between base rate case filings, the timing of expenses incurred and associated revenues billed to customers occurs in the same fashion as other O&M and G&A expenses included in the cash working capital allowance.

Second, the Commission is unconvinced, based upon the evidence presented in this case, that the cash working capital methodology recommended by the Public Staff is better supported than the methodology proposed by the Company. The Public Staff offered no convincing evidence in that regard sufficient to negate the credible testimony offered by Company witness DeStefano. While the Staff's cash working capital methodology has, to date, apparently been used and approved by the Commission in prior water and sewer rate cases (according to witness Henry), it appears that this may well be the first time that a challenge has been mounted by an affected utility. The evidence presented by CWSNC has convinced the Commission that the Company's proposal to include purchased water and sewer expense in the cash working capital calculation is reasonable and appropriate and should be adopted for purposes of setting rates in this proceeding.

Third, the Commission recognizes, as asserted by witness DeStefano, that the pass-through mechanism authorized by G.S. 62-133.11 has, at least to date, only been applied in situations where the utility purchases 100% of its water or sewer supply from a third-party supplier. In situations where a utility purchases less than 100% of its supply, there is currently no procedure in place to allow pass-through of increased costs outside of a general rate case. Clearly, there is a significant lag in cost recovery of cost increases in purchased water and sewer expense in that circumstance, since such increases may only be recovered in general rate cases. There appears to be no restriction within G.S. 62-133 or elsewhere in the North Carolina public utility statutes that limits the pass-through adjustment for third-party vendor price changes to systems supplied by 100% purchased water or sewer.

In addition, even in the case of a pass-through request where CWSNC purchases 100% of the commodity, there is still a lag in cost recovery since the Commission is allowed a minimum period of 60 days by statute to issue its Order. Even witness Henry conceded that there is some degree of regulatory lag with these pass-through applications. The Company has demonstrated by convincing evidence, to the satisfaction of the Commission, that the lag time associated with recovery of increases in purchased water and sewer expense is present and therefore qualifies these expenses for inclusion in the calculation of the Company's cash working capital allowance in this case.

Accordingly, for the reasons set forth above, the Commission concludes that the Public Staff's exclusion of CWSNC's purchased water and sewer expense from its calculation of the Company's cash working allowance is unreasonable and inappropriate, unsupported by the facts, and unjustified. CWSNC's position on this issue is reasonable and justified. Therefore, CWSNC's proposal to include the Company's purchased water and sewer expense in the cash working capital calculation in this case is hereby approved.

In addition, as no restriction exists to limit the pass-through of purchased water and sewer vendor price changes to 100% supplied systems, the Commission directs the Company and Public Staff to consider such partially-supplied systems in future pass-through filings.

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 18
(Adjustment to Exclude Insurance Premium Expenses Allocated to CWSNC from Utilities, Inc.)

Summary of Public Staff Testimony

Public Staff witness Henry[6] testified that the Public Staff adjusted the Company's insurance premiums to reflect the current amount for insurance for Utilities, Inc., the parent company of CWSNC, provided by the Company and allocated to CWSNC using the following factors, which resulted in a decrease in CWSNC's insurance expense in this case of $143,010:[7]

[6] Witness Windley Henry adopted and presented the testimony which was initially prefiled by Public Staff witness Lynn Feasel.
[7] The amount of this adjustment includes $951 for insurance expense related to Riverbend Estates where CWSNC serves as Emergency Operator and $142,059 related to CWSNC's automobile, workers compensation, and property insurance expense. See Henry Supplemental Exhibit 1, Schedules 3-12 and 3-12(a).

a. Automobile insurance was allocated based on the number of automobiles for CWSNC as a percentage to the total number of automobiles;

b. Workers compensation insurance was allocated to reflect the adjusted level of payroll;

c. Property insurance was allocated to reflect the value of the property covered by the current insurance policies; and

d. The remaining insurance items were allocated to the various entities based on the number of customers.

On cross-examination, Public Staff witness Henry stated that, in its Application, CWSNC allocated all of its ten categories of insurance expenses on the basis of number of customers or customer count, but that the Public Staff disagree with using customer count to allocate costs for three of those categories (automobile, workers compensation, and property insurance expenses) because, in the view of the Public Staff, the Company's allocation methodology allocates costs from other states to North Carolina. Witness Henry further admitted, on cross-examination, that Henry Supplemental Exhibit 1, Schedule 3-12(a), shows that the Public Staff itself allocated seven of the ten categories of the Company's insurance expense based on customer count.

Witness Henry also testified on cross-examination that the allocation factors recited by Company witness DeStefano in his rebuttal testimony (Prefiled Rebuttal Testimony at Page 9, Lines 10 – 19) could be considered in determining insurance expenses for ratemaking purposes, but that the Public Staff used the factors for automobile, workers compensation, and property insurance that it used in prior rate cases. However, witness Henry testified in response to a question from CWSNC's counsel that he accepted, subject to check, that the Public Staff allocated insurance costs in the Company's most recent Sub 356 rate case based on customer count as proposed by CWSNC, rather than the three alternative factors the Public Staff used in this case.

On cross-examination, witness Henry further stated that Utilities, Inc., CWSNC's parent company, allocates insurance costs to all of its operating subsidiaries, including CWSNC, based on customer count and that the allocation methodology proposed in this case by the Company is consistent with the allocation methodology utilized by UI. Witness Henry agreed that the Public Staff's proposed adjustment to CWSNC's insurance expense in this case totals more than $140,000 and that such adjustment is "significant and appropriate."

Summary of Company Testimony

CWSNC witness DeStefano testified on rebuttal that Public Staff witness Feasel allocated the insurance premiums paid by Utilities, Inc. based upon a variety of factors. Namely, automobile insurance was allocated based on the number of CWSNC vehicles compared to total vehicles covered under the policy; worker's compensation insurance was allocated based upon the proportion of CWSNC payroll to total covered payroll; and property insurance was allocated based upon the proportion of CWSNC property to total covered property.

Witness DeStefano testified that CWSNC disagrees with the Public Staff's allocation methodologies. He stated that witness Feasel allocated the insurance premiums paid by Utilities, Inc. based upon a variety of factors. Namely, automobile insurance was allocated based on the number of CWSNC vehicles compared to total vehicles covered under the policy; workers compensation insurance was allocated based upon the proportion of CWSNC payroll to total covered payroll; and property insurance was allocated based upon the proportion of CWSNC property to total covered property.

Witness DeStefano testified that CWSNC disagrees with the Public Staff's allocation methodologies. He stated that the Company understands the Public Staff's desire to identify an allocation method more aligned with the subject of the policy. However, there are far too many factors—which were not considered by the Public Staff—involved in the setting of policy premiums to utilize only one for each policy in allocating insurance costs. For example, in addition to the number of vehicles covered, witness DeStefano stated that auto policies consider factors such as "rating territory" (urban vs. rural); vehicle type and storage (maintenance truck vs. pool car); vehicle age; original cost; and claims history. The mix of vehicles covered under Utilities, Inc.'s auto policy will vary for each subsidiary on each of these factors. Similarly, claims history and employee classification mix will influence worker's compensation premiums. Consequently, the Company's allocation method avoids "going down the rabbit hole" of attempting to identify a perfect allocation method, and utilizes a single, consistent allocation method in each application. Therefore, the Company reiterates CWSNC's as-filed allocation method for insurance expenses as the most reasonable and appropriate allocation method.

Commission Conclusions

By its Application, CWSNC included $572,345 in the Company's proposed cost of service for ten categories of insurance expense allocated to it by UI on the basis of customer count. The Public Staff proposed to disallow $143,010 of that amount and, instead, to include $429,335 for insurance expense in CWSNC's cost of service in this case. By this adjustment, the Public Staff proposed to disallow approximately 25% of CWSNC's allocated insurance expense from the Company's utility cost of service.

The Commission concludes that CWSNC's insurance expense should be allocated in this case based upon the Company's proposed methodology of customer count for the automobile, workers compensation, and property insurance categories of such expenses. The Commission reaches this conclusion for the following reasons.

First, the Commission agrees with CWSNC witness DeStefano that the Company's use of what he describes as a "single, consistent allocation method" based on customer count is the method which is most reasonable and appropriate for use in this proceeding. This is the methodology which CWSNC's parent company, Utilities, Inc., uses to allocate insurance costs among all of its subsidiary operating companies and the Commission finds no reason to deviate from and reject utilization of that allocation methodology in this case.

Second, the Commission is unconvinced that the allocation factors recommended by the Public Staff for the three categories of insurance expense in question are superior to allocating these expenses based on customer count. The Public Staff offered no convincing evidence in that regard sufficient to negate the credible testimony offered by Company witness DeStefano. In fact, the Company correctly asserted, on cross-examination of witness Henry, that the Public Staff did not contest allocation of all components of CWSNC's insurance costs on the basis of customer count as proposed by the Company in its most recent Sub 356 rate case.

Third, utilization of the Public Staff's proposed allocation factors for automobile, workers compensation, and property insurance would deny and unreasonably impair CWSNC's ability to recover $142,059[8] of allocated insurance expense in this proceeding, which even witness Henry described as "significant" in amount (while still defending his position). The Commission also views a disallowance of approximately 25% of the Company's allocated insurance expense of $142,059 as significant in amount, particularly since such expense has in fact been allocated to CWSNC by UI. Furthermore, disallowance of that amount of valid insurance expense, if approved by the Commission, will not be a one-time denial, but will, instead, recur annually in that amount for so long as the new rates approved in this case are in effect. That result is not justified or acceptable to the Commission based on the facts and record in this case.

[8] CWSNC did not challenge the exclusion by the Public Staff of $951 of insurance expense related to the service it provides as Emergency Operator of the Riverbend Estates utility system.

Accordingly, for the reasons set forth above, the Commission concludes that the Public Staff's proposed adjustment in the amount of $142,059 to the Company's automobile, workers compensation, and property insurance expense, which would exclude a legitimate expense from the cost of service in this case, is unreasonable and inappropriate, unsupported by the facts, and unjustified. CWSNC's position on this issue is reasonable and justified. Therefore, the Public Staff's proposed adjustment to insurance expense is hereby denied.

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 19
(Adjustment Using Composite Utility Plant Depreciation Rates for Calculating CIAC and PAA Amortization Expense)

Summary of Public Staff Testimony

Public Staff witness Henry[9] testified that the Public Staff adjusted CIAC amortization expense to reflect the Staff's recommended level of CIAC multiplied by an amortization percentage based on the composite depreciation rate for the Public Staff's adjusted level of plant in service. Witness Henry further testified that the Public Staff also adjusted PAA to reflect the Staff's recommended level of PAA multiplied by an amortization percentage based on the composite depreciation rate for the Public Staff's adjusted level of direct plant in service.

On cross-examination, witness Henry testified that the Public Staff had previously made this adjustment in every rate case he had worked on involving CWSNC and the other UI utility subsidiaries in North Carolina, such as CWS Systems, Transylvania, etc. Witness Henry stated that the reason the Public Staff

[9] Witness Windley Henry adopted and presented the testimony which was initially prefiled by Public Staff witness Lynn Feasel.

initially adopted and utilized this adjustment was because of problems with the recording of CIAC and PAA by CWSNC in prior years and a portion of CIAC (tap-on fees) that is not directly allocated to a particular plant account. Witness Henry further testified on cross that "in order for the customer to take advantage of those tap-on fees, we calculated a composite depreciation rate to reduce the amount of PAA as well as CIAC."

During cross-examination, witness Henry admitted that the problems associated with errors affecting recordation of CIAC and PAA, which existed in the past, had been resolved by the Company, although the tap-on fee situation has not changed. According to witness Henry, the Company still has a problem with recording the right amount tap-on fees in each plant account and, therefore, the Public Staff continues to think that it is necessary to use composite depreciation rates.

Witness Henry admitted on cross-examination that, in theory, there is nothing wrong with the Company's position that CIAC and PAA amortization should use the actual amortization rates for each applicable account within the CIAC and PAA groups and not a proxy of composite depreciation rates. He continued by stating, however, that because of CWSNC's past problems, the Public Staff thinks that it is appropriate to continue to use the composite depreciation rates. Witness Henry was not able to quantify the significance of the Public Staff's asserted continuing tap-on fee problems. He also agreed that, in theory, it is true that what can be directly assigned should match the depreciation rates of the Company.

On cross-examination, witness Henry agreed, subject to check, that the Public Staff's PAA adjustment in this case amounts to approximately $38,000; that the Public Staff's CIAC adjustment is approximately $296,000; and that the two adjustments total approximately $334,000. He further agreed that this adjustment is "significant," but added that it is also "appropriate." Witness Henry agreed that these two adjustments reduce the Company's revenue requirement in this case by approximately $334,000 per year; that, under the Public Staff's position, CWSNC would not collect that amount of revenue each year that the new rates set in this proceeding remain in effect; and that, under to Public Staff's position, that the Company would never be allowed to recover such disallowed revenue.

Summary of Company Testimony

CWSNC witness DeStefano testified that witness Feasel calculated an annual amortization expense for each of CIAC and PAA based on the recommended level of each balance multiplied by the composite depreciation rate for the Company's direct plant in service. Witness DeStefano stated that CWSNC does not agree with the Public Staff's position and that the Company believes CIAC and PAA amortization should use the actual amortization rates for each applicable account within the CIAC and PAA groups, and not the proxy of composite depreciation rate. The Public Staff's calculation presumes the mix of asset account values in plant in service and CIAC and PAA are exactly the same, which they are not. Applying the Company's rates to the actual balances at June 30, 2018, composite CIAC rates of 2.49%, 2.04%, 2.50%, and 2.06% were confirmed for CWSNC Water, CWSNC Sewer, Bradfield Farms/Fairfield Harbor Water, and Bradfield Farms/Fairfield Harbor Sewer, respectively. Likewise, for PAA, the actual water rate of 2.47% and sewer rate of 3.53% should be utilized. As the Company's actual CIAC and PAA composite rates differ from composite depreciation rates due to a varying asset mix, the Company recommends the above rates as the more reasonable and supportable calculation.

In response to questions from Chairman Finley, witness DeStefano stated that the Company's request here is that, to the extent there is a one-to-one match between the utility plant account and the CIAC account, that we should use the same rate for a particular account's balance, and not just the composite rate for the entire CIAC balance, because the mix of assets is different between the two. Witness DeStefano further stated that he did not believe that the Public Staff disputed [the accuracy of] the rates proposed by the Company. Witness DeStefano also acknowledged the existence of certain CIAC accounts that are called "tap fee, reconnect fee, things like that" which probably don't have an equivalent plant account. But the witness stated that shouldn't preclude the other CIAC balances' amortizations being calculated based on their one-to-one matches. Witness DeStefano stated that the Company would be amenable to using the composite depreciation rate for tap-fees as a proxy if that is necessary, but not for the entire CIAC balance, just for the accounts that do not have one-to-one matches.

In response to further questions from Chairman Finley, witness DeStefano testified that he disagreed with the Public Staff's position that it is proper to use the composite depreciation rate on the Company's total CIAC balance, for the reason that the asset mixes are different, so the composite rates would be different, assuming each individual line item has the same depreciation rate, two percent on one side, two percent on the other, et. cetera. Witness DeStefano agreed that the Company's recommendation is more refined than the Public Staff's general recommendation. He stated that the proper utility accounting is to match on the books the CIAC amortization, which is the credit on the income statement, and the depreciation expense, which is a debit on the income statement, so that there is no net benefit or detriment to the Company from contributed property.

In response to questions from Commissioner Brown-Bland, witness DeStefano again emphasized the Company's position that the proper accounting is to match CIAC amortization with the applicable utility plant assets. He stated that the Company should neither be punished for having contributed property nor should it benefit from having contributed property, which is proper accounting. Witness DeStefano stated that the Public Staff's methodology does not match what the Company is doing on its books; i.e., proper accounting. When asked if the methodology proposed by the Public Staff, which was stated to have been used consistently over many rate cases, would, over time, balance out both ways, witness DeStefano responded that he did not believe that it will balance out to the extent that the Company's recovery through rates and the entries on its books will not be in sync. In this case, the Public Staff's position is a detriment to the

Company, a detriment [of more than $330,000] to its revenue requirement, when the Company is performing proper accounting on its books.

Commission Conclusions

By its testimony, the Public Staff proposed to disallow a total of $333,945 of CIAC and PAA amortization expense from the Company's cost of service in this proceeding, consisting of $295,811 for CIAC and $38,134 for PAA. The Public Staff adjusted CIAC amortization expense to reflect the Staff's recommended level of CIAC multiplied by an amortization percentage based on the composite depreciation rate for the Public Staff's adjusted level of plant in service. The Public Staff also adjusted PAA to reflect the Staff's recommended level of PAA multiplied by an amortization percentage based on the composite depreciation rate for the Public Staff's adjusted level of direct plant in service. CWSNC disagreed with the Public Staff's methodology and asserted that CIAC and PAA amortization should be calculated using the actual amortization rates for each applicable account within the CIAC and PAA groups, and not the proxy of composite depreciation rates.

The Commission concludes that CWSNC's proposed methodology is superior to the methodology utilized by the Public Staff to calculate CIAC and PAA amortization expense for purpose of setting rates in this proceeding. The Commission reaches this conclusion for the following reasons.

First, the Commission agrees with CWSNC witness DeStefano that it is more reasonable and supportable to use the Company's actual amortization rates for each applicable account within the CIAC and PAA groups, rather than the

Public Staff's proxy of composite depreciation rates, to set rates in this case. The Commission also agrees that the Company's recommended methodology is more refined than the Public Staff's general recommendation and that it more accurately reflects CWSNC's ongoing level of CIAC and PAA amortization expense.

Second, the Commission is unconvinced, based upon the evidence presented in this case, that the allocation methodology recommended by the Public Staff is superior to the methodology proposed by the Company. The Public Staff offered no convincing evidence in that regard sufficient to negate the credible testimony offered by Company witness DeStefano. While the Staff's methodology has, to date, apparently been used and approved by the Commission in many water and sewer rate cases (according to witness Henry), it appears that this may well be the first time that a challenge has been mounted by an affected utility. The evidence presented by CWSNC has convinced the Commission that the Company's methodology is reasonable and appropriate and should be adopted for purposes of setting rates in this proceeding.

Third, the rationale given by witness Henry as to why the Public Staff initially adopted and utilized this adjustment no longer applies in most respects. In fact, witness Henry admitted on cross-examination that the problems associated with errors affecting recordation of CIAC and PAA, which existed in the past with CWSNC, had been solved by the Company, although he stated that the tap-on fee situation has not changed. Nevertheless, witness Henry was not able to quantify the significance of the Public Staff's assertion regarding continuing tap-on fee problems. That inability on the part of the Staff leads the Commission to conclude that the asserted continuing, but unquantifiable, tap-on fee problems are not a bar to approving the Company's proposed methodology in this case. In fact, Company witness DeStefano stated that CWSNC was amenable to using the composite depreciation rates for the tap-on fee CIAC accounts as a proxy, which sufficiently accommodates the concerns raised by Public Staff.

Fourth, in deciding this issue, the Commission gives significant weight and credibility to witness Henry's admission on cross-examination that, in theory, there is nothing wrong with the Company's position that CIAC and PAA amortization should use the actual amortization rates for each applicable account within the CIAC and PAA groups and not a proxy of composite depreciation rates. On cross-examination, witness Henry also agreed that, in theory, it is true that what can be directly assigned should match the depreciation rates of the Company. These admissions support and provide significant justification for CWSNC's position regarding proper accounting for CIAC and PAA amortization and for the Commission's decision.

Fifth, consistent with our decision in this case regarding insurance expense, the Commission concludes that utilization of the Public Staff's proposed allocation methodology would deny and unreasonably impair CWSNC's ability to annually recover $333,945 of CIAC and PAA amortization expense in this proceeding, which even witness Henry described as "significant" in amount (while still defending his position). The Commission also views a disallowance of this magnitude to be significant and unjustified in amount. Furthermore, disallowance of that amount of valid CIAC and PAA amortization expense, if approved by the Commission, will not be a one-time denial, but will, instead, recur annually in that amount for so long as the new rates approved in this case are in effect. Here again, as with insurance expense, that result is not justified or acceptable to the Commission based on the facts and record in this case.

Accordingly, for the reasons set forth above, the Commission concludes that the Public Staff's proposed adjustment in the amount of $333,945 to the Company's CIAC and PAA amortization expense, which would exclude a legitimate expense from the cost of service in this case, is unreasonable and inappropriate, unsupported by the facts, and unjustified. CWSNC's position on this issue is reasonable and justified. Therefore, the Public Staff's proposed adjustment is hereby denied.

EVIDENCE AND CONCLUSIONS OF FINDINGS OF FACT NOS. 20 - 21
(Adjustment to Reduce Executive Compensation and Benefits, and Related Payroll Taxes, by Fifty Percent)

The evidence in support of the findings of fact and conclusions concerning recovery in rates of executive compensation, pensions and benefits is found in the Application; the filed rebuttal testimony of CWSNC witness DeStefano; the direct and supplemental testimonies of Public Staff witness Johnson; the examination of both witnesses on cross-examination as well as redirect and upon questions from the Commission; and the confidential late-filed exhibit provided on October 30, 2018 by Public Staff witness Johnson in response to Chairman Finley's request.

Summary of Public Staff Testimony

Public Staff witness Sonya Johnson's direct testimony recommended an adjustment to allocate a portion of executive compensation---salaries, pension and benefits---to shareholders. Her first supplemental testimony explained the Public Staff's adjustment to remove 50% of the compensation of three executive officers of Utilities, Inc. ("UI"). These officers are: President and Chief Executive Officer Lisa Sparrow; Vice President & General Counsel Laura Granier; and President of Shared Services James Devine.

The Public Staff does not contend that the level of compensation for these executives is excessive; rather, it asserts that the shareholders of the "very large" water and wastewater utilities should bear some of the cost of compensating those individuals who are most closely linked to furthering shareholder interests, which the Public Staff distinguishes from the interests of ratepayers. Witness Johnson contends that the officers' fiduciary duties of care and loyalty to shareholders do not extend to ratepayers. She sums the Public Staff view that it is reasonable to expect that management will serve the shareholders as well as the ratepayers; therefore, a portion of management compensation and pension should be borne by the shareholders.

Witness Johnson does acknowledge that the Company's executive officers are obligated to direct their efforts to minimizing the costs and maximizing the reliability of CWSNC's service to customers, but also states that they are committed to maximizing the Company's earnings and the value of its shares. Upon examination by the Company, she declined to recognize any relevant distinction between this Company and any others, either with respect to size or the obligations and activities of the executive management team. On redirect, witness Johnson described the same treatment of the four top Duke Energy Progress executives' compensation, based upon the Public Staff's position that the executives' work and loyalties are divided between ratepayers and shareholders. However, she responded upon examination that Duke Energy, in both of its recent rate cases, filed for recovery at 50% of the compensation of the top corporate executives.

Upon examination by the Commission, witness Johnson conceded that she:

- had not specifically looked at the duties and responsibilities of the UI executive team, outside of an informal phone call;
- could not say which of the named executives' specific duties were solely for the benefit of the shareholder and completely not for the benefit of the ratepayer;
- was not sure whether any of the named executives provided communications or information for evaluation of investment by shareholders, though she noted that this sounded like a CEO function;
- agreed that because the shareholders provide the capital necessary to operate the company, the management was required to be advertent to the interest of shareholders to provide service to customers;
- acknowledged that the Commission calls upon these regulated companies to assume responsibility for troubled systems, which requires capital;

- agreed that the line between responsibilities to ratepayers and to shareholders was not a direct line and was "...sort of a fuzzy line at best…" *Tr. Vol. 8, page 136, line 23.*
- agreed that such an adjustment had not been made by the Public Staff for CWSNC previously; and
- agreed that a range of Corix corporate costs, such as directors' fees, tax, and corporate legal costs, were not included for recovery in this case.

Witness Johnson applies the same argument to these three executives' salaries, pensions and benefits. Witness Johnson focused on the Executive Long-Term Payment Grants, which are based upon meeting UI's Return on Total Capital target and meeting the Company's Incremental Growth Capital target. The three UI executives' compensation allocated to CWSNC totaled $184,718, of which the Public Staff recommends 50% ($92,359) be removed from cost of service as shareholder expense.

The Public Staff also adjusted payroll taxes to remove 50% of executive compensation. Witness Johnson's updated adjustments were contained in her Second Supplemental Testimony, plus she provided a confidential late-filed exhibit which calculated her adjustments to implement the recommended 50% adjustments to executive compensation, including pensions and benefits, which sum to $111,746 of excluded costs.

<u>Overview of Company Testimony</u>

Witness DeStefano disputed the Public Staff adjustment. He testified to the focus of these executive positions on customer satisfaction and efficient, low-cost operations. First, the Vice President & General Counsel provides legal support to the regulated companies such as CWSNC, including, for example, on issues involving human resources matters, health, safety and environmental issues, contract review, litigation support, and review of various legal issues. These include regulatory and transactional matters, including rate filings, easement and right-of-way issues, and mandatory regulatory and legal policies such as record retention, privacy, and cybersecurity. These are the basic legal functions of any regulated utility—which are discharged to the direct benefit of CWSNC's customers.

Second, witness DeStefano stated that the President of Shared Services focuses on the delivery of services essential to local operations and customers, including: customer service; human resources; health, safety and environmental compliance; Information Technology; billing; insurance; accounting; and facilities management. Witness DeStefano rejected the assertion that any of the President of Shared Services' role supports the shareholder in any other manner than simply facilitating a well-run utility. On cross-examination, he reiterated that this officer oversees these local operations functions as his primary and key duty.

Finally, witness DeStefano described the Chief Executive Officer's close interaction with local leadership in evaluating capital investment plans and operating budgets, as well as providing expertise on and leadership with addressing customer concerns, industry "best practices," setting short- and long-term operating strategies, and generating company initiatives and policies such as safety, environmental, and business transformation programs. The CEO assesses risks to be sure they are addressed and mitigated to ensure that the Company provides safe, reliable, and cost-effective service. In addition, the CEO works closely with the single shareholder and lenders to secure capital and debt for improvements that directly address customer needs.

Witness DeStefano explained that a regulated utility exists solely to provide service to its customers and that it cannot exist without debt and equity funding. In summary, he argued that the functions of these three executives differ from those of publicly-traded parent company corporate executives whose job focus may very well be much more on benefits to the shareholder. He explained that UI is more of an operating company, as demonstrated by the roles of the three individuals at issue. Notably, UI is not a publicly-traded company, so time spent on shareholder-related activities is limited to that which is required to make sure risks are mitigated and capital is secured. Finally, UI has only one (1) shareholder and dealing with that single investor requires comparable effort as working with debt holders.

Witness DeStefano rejected as unfair witness Johnson's representation that the Company officers did not have fiduciary duties of care and loyalty to customers, but only to shareholders. Witness DeStefano observed that when the fundamental focus of the shareholder is ensuring customer satisfaction and welfare by providing the best service at the most reasonable possible price—which the management of these regulated utilities is required by statute to do—then the interests of the shareholder and the Company's ratepayers are understood to be exactly aligned. This alignment becomes clearer when one considers the necessity, for the customers' benefit, for a utility to attract both high-quality human resources for management and leadership purposes, and to attract financial capital to support the capital-intensive industry.

Attracting capital from investors is vital to fund needed improvements in aging systems and, as other regulators have recognized, one of the great benefits to a local utility being part of a larger utility company is access to capital that the parent is able to provide. The ability to maintain and support proper service to customers at a reasonable cost is inextricably linked to the officers' ability to meet shareholder expectations. Without the executives' support and services, the Company would neither be positioned to meet the needs of its customers nor be eligible to achieve financial returns that attract debt and equity capital needed for the financial welfare of the utility. Therefore, executive base compensation is an integral and necessary part of the Company's overall cost of service to meet the needs of its customers.

Witness DeStefano also criticized the blanket basis of the decision to exclude 50% of the named executives' compensation, without examination of or reference to the compensation philosophy or the actual compensation goals and guidelines. The Company contended that the Public Staff's recommendation is arbitrary and lacks support either in the facts or the reality of the functions of this executive team, whose contributions should be fully supported in rates as they focus on direct benefits to customers.

Witness DeStefano also testified that Corix, a corporate level above Utilities, Inc., has provided beneficial services and support to UI and its affiliates—

including CWSNC—since its acquisition of UI. However, those Corix corporate costs (such as director fees, tax and corporate legal costs) have not, to date, been included for recovery in CWSNC's rates even though they are part of the overall costs to support the services provided to the Company.

Commission Conclusions

The Commission concludes that the Public Staff's proposed adjustment to exclude from cost of service 50% of CWSNC's share of the costs of compensation to three UI executives (including pensions and benefits), in the amount of $111,746 is inappropriate for the reasons testified to by Company witness DeStefano.

First, the Commission is convinced by the rebuttal testimony offered by witness DeStefano that adequate compensation plans are necessary to attract and retain qualified executive leadership.

Second, the Commission agrees with witness DeStefano that the interests of CWSNC's ratepayers and UI's sole shareholder are aligned in terms of the necessity to attract very large amounts of capital at reasonable cost. Shareholders provide the funding that is essential to this capital-intensive industry and, thus, ratepayers depend on corporate leadership to interact with the shareholders whose investment is essential to the ability to serve those ratepayers. To be clear, ratepayers rely on executive management to secure adequate and reasonably priced capital, which is necessary to support the enormous investments associated with the infrastructure required to safely and reliably build, maintain, and operate water and wastewater systems.

Third, the Commission disagrees with Public Staff witness Johnson's characterization of the obligations of duty and care exercised by UI executives, and believes it is too narrowly framed. UI's management would undermine its ability for an opportunity to earn a reasonable rate of return on investment in North Carolina if it failed to meet its obligations to ratepayers. Compliance with those obligations is the fundamental prerequisite of adequate recovery in rates. Under the regulatory construct that exists in North Carolina, there simply is no adequate, persistent, long-term opportunity for a regulated public utility to recover necessary expenses and earn a reasonable return on investment, absent provision of adequate service to ratepayers. Over time, the shareholders benefit only if the ratepayers are properly served.

Finally, the Commission is persuaded by the description of the level of participation by these executives in the direct provision of service to North Carolina ratepayers. The actual support to and leadership of the local operations from the three executives is significant and essential. Additionally, the Commission notes that only the corporate management can support the case for shareholder investment that funds the North Carolina operation---the ratepayers' best interests depend on it.

Accordingly, for the reasons set forth above, the Commission concludes that the Public Staff's proposed adjustment to exclude 50% of the expenses associated with executive compensation (in the amount of $111,746) from the Company's cost of service is inappropriate, unsupported by the facts in this case, and unjustified. CWSNC's position on this issue is justified. Therefore, the

Public Staff's proposed executive compensation adjustment is hereby denied. This decision extends to any implications for base salaries, pensions, benefits, and payroll taxes.

EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NOS. 22 - 26
(Consumption Adjustment Mechanism)

Summary of Public Staff Testimony

Witness Casselberry addressed the CAM in her direct testimony, as well as in response to questions from the stand. She posed four primary objections.

First, witness Casselberry propounded the Public Staff's position that any new rate mechanism, such as a CAM, should be authorized by the North Carolina General Assembly before being considered by the Commission for rulemaking. She observed that during the 2017-2018 Session, House Bill 752 could have added language to N.C. Gen. Stat. § 62-133 authorizing customer usage tracking and rate adjustments. However, on April 26, 2017, after passing the House on April 25, 2017, the legislation was referred to the Committee on Rules and Operations of the Senate and did not emerge from that committee for a floor vote. She expressed the Public Staff's opinion that the General Assembly had an opportunity to authorize this mechanism during its existing session, but chose not to, even though it made other changes to Chapter 62 involving water and wastewater utilities. In light of the General Assembly's decision to not authorize a CAM, the Public Staff does not believe the Commission should intervene and create the CAM requested by CWSNC.

Second, witness Casselberry expressed concerns about the 1% threshold proposed by CWSNC in the CAM formula. For an average usage of 5,000 gallons per month, she calculated that the mechanism would be triggered by a variance of 50 gallons per month, which is approximately 50 seconds per day longer in the shower (assuming a low flow showerhead of 2.0 gallons per minute) or approximately one additional flush per day (assuming 1.6 gallons per flush under the federal plumbing standards for new toilets). Witness Casselberry asserted that an alternative rate mechanism should not be triggered by such an insignificant deviation in normal customer usage.

Next, the Public Staff expressed concern that utilization of actual consumption does not adequately account for customer growth in generation of revenue. Witness Casselberry asserted that in a year of decreased usage, customer growth could offset the lower usage revenues. In a year of increased usage, growth would contribute to the Company potentially earning above and beyond the Commission's approved rate of return. The proposed CAM, she cautioned, would allow CWSNC to increase rates for decreased usage even if customer growth caused the Company to otherwise collect its full revenue requirement. For example, in this rate case, with a 2017 test year, customer growth was 0.938 percent for CWSNC's uniform water rate division and 0.466 percent for the Treasure Cove/Bradfield Farms/Fairfield Harbour rate division. Whereas she typically has not adjusted consumption or expenses related to consumption for customer growth less than one percent, she warned that any mechanism that ensures the Company of collecting its full revenue requirement should also benefit customers by crediting customers with revenue resulting from increased usage due to customer growth.

Finally, witness Casselberry contested the Company's alternative rate design mechanism, which was designed to address declining consumption, should the Commission reject the CAM. Company witness DeStefano testified that as an alternative to a CAM, the Commission should direct the parties to develop a rate design that is based on a 60%:40% ratio of base charge to usage charge for water, versus the current ratio of approximately 50%:50%. In response and citing her analysis of end of period ("EOP") residential customers for uniform rates, with meters less than one-inch, and actual consumption for the test year period ending December 31, 2017 (excluding Elk River and purchased water customers), witness Casselberry testified that the current ratio is 47%:53%, base charge to usage charge. She acknowledged the Company's statement that the actual cost ratio is approximately 80%:20%, fixed costs to variable costs, and that the current rate design reduces the Company's ability to promote conservation without negatively impacting its ability to earn a fair and reasonable rate of return. Nevertheless, the Public Staff opposes using CWSNC's alternative to a CAM in this proceeding.

Witness Casselberry contended that CWSNC should have alerted the Public Staff, the Commission and customers to this alternative prior to filing testimony on September 4, 2018, and that consequently the Public Staff had insufficient time to investigate the impact. Noting that the base charge has been a contentious issue in recent hearings, witness Casselberry recommended that the ratio remain in the range of 45%:55% base charge to usage charge, which is consistent with past recommendations.

Regarding the reality of declining consumption, witness Casselberry testified that many of CWSNC's meters are very old and that meters slow with age and might not be registering all consumption. She agreed that water-saving appliances have also contributed to lower consumption but pointed out her personal conclusion that they have been on the market for some time and that the impact of that source of conservation might already have occurred, in some measure. She stated her belief that the driver of lower consumption was more a function of old meters than of new appliances, and she expressed a preference for additional time to study consumption, based on additional data. The witness did agree with Chairman Finley that if the Commission approved a CAM and consumption leveled off, then the CAM simply would not be triggered.

Witness Casselberry testified that the average consumption for uniform rates in the last CWSNC rate case was 4,391 gallons per residential customer, compared in this case to 3,946 gallons per residential customer. If the seasonal and some of the purchased water customers are included, the average consumption is 3,941 gallons. As witness Casselberry notes the decline in consumption, she also points out the impact of recent rate increases. At Chairman Finley's request, witness Casselberry prepared a late-filed exhibit on October 30, 2018, which reflected this average consumption per month, per customer, in the instant case (test period ending December 31, 2017) to the same consumption level in the last CWSNC rate case (W-354, Sub 356, test period ending December 31, 2016).

Summary of Company Testimony

CWSNC witness DeStefano testified that CWSNC---like the water utility industry in general---continues to experience a consistent decline in consumption. This decline in consumption, combined with regulatory lag resulting from use of traditional historical test year ratemaking principles, impairs CWSNC's opportunity to achieve its Commission-authorized rate of return on equity.

Witness DeStefano explained that, in its Application, CWSNC requested authority to implement a "consumption band" water and wastewater rate adjustment mechanism within each of the Company's four Rate Divisions for non-purchased water and wastewater commodity customers. The CAM is a mechanism that balances the risk and impact on ratepayers and shareholders of levels of water and wastewater consumption that are either significantly higher or significantly lower than those levels of consumption that were used to set rates. Should the actual consumption be over 1% less than what was used in designing rates within the rate case, then a surcharge would be placed on the customers' bills for a period not to exceed 12 months to make the Company whole. Conversely, should the actual consumption be over 1% higher than the consumption used to design rates within the rate case, then a negative surcharge would be applied to the customers' bills for a period not to exceed 12 months.

Witness DeStefano made the Company's request that the Commission find and conclude that it is in the public interest to approve implementation of the

Company's proposed water and wastewater CAM as part of the rate case order in this proceeding. CWSNC requested that the Commission approve the water and wastewater CAM based on the NCUC's inherent regulatory authority to do so in a rate case and recognized that a rulemaking proceeding would be required to develop and adopt the terms of such a mechanism.

Absent approval of a water and wastewater CAM, witness DeStefano contended the Company and its customers would continue to needlessly experience the vicissitudes of significant variances in consumption over a significant period. CWSNC submitted that approval now of the opportunity to true-up those variances, in a reasonable and prudent fashion, is lawful and in the best interests of customers and the Company.

Alternatively, the Company requested that the Commission find it reasonable, necessary, and appropriate to direct the parties to develop a rate design that is based on a 60%:40% ratio of base facilities to volumetric charges for water. This would be a change from the current ratio of approximately 50%:50%, base to volumetric. The proposed ratio is needed to more closely align cost recovery with actual costs incurred. With the current ratio of 50%:50%, the ratio of recovery to actual costs incurred is not properly aligned, testified witness DeStefano. Currently, the Company is experiencing an actual cost ratio of approximately 80%:20%, fixed to variable, yet rates are designed with a 50%:50% ratio for fixed and variable cost recovery. This misalignment hinders the Company's opportunity to earn its fair and reasonable return should consumption decline. The consumption trend across the industry is currently one of decline due to conservation efforts, more efficient fixtures, etc. The current rate design reduces the Company's ability to promote conservation efforts without negatively impacting its ability to earn a fair and reasonable return.

Witness DeStefano, on rebuttal, asserted that the CAM is a mechanism that balances the risk and impact on ratepayers and shareholders of levels of water and wastewater consumption that are either significantly higher or significantly lower than those levels of consumption that were used to set the Company's base rates. Generally, an increased conservation ethic among customers, as well as the proliferation of efficient water fixtures (i.e., modern irrigation and household plumbing devices) that conform to increasingly strict manufacturing standards, contribute persistently to a gradual decline in consumption per customer. These factors are out of the control of the Company and will continue to drive consumption decline for the foreseeable future as older, less-efficient fixtures are replaced with more efficient units and new homes are built at current efficiency standards. The witness explained that the water and sewer industry also operates with a cost structure that is mostly fixed; however, the revenue is generated in large portion by the variable consumption component of rates. Additionally, the Company's revenue requirement is set based on an expected "normal" consumption level, which does not account for the considerable seasonal weather variations which can occur. He observes it is highly unlikely that any particular year will result in exactly the level of consumption utilized in the setting of rates.

According to witness DeStefano, the proposed CAM helps to alleviate the negative impact to the Company of declining consumption and significant seasonal weather variation and protects customers from over-collection in an increasing consumption scenario. In addition, such a mechanism eliminates the throughput incentive, which currently presents the Company with conflicting motivations. The Company is currently incentivized to sell more water to improve its financial performance, yet this would increase costs to customers and fails to promote conservation of a valuable resource. The CAM mechanism would remove this conflict and allow the Company to promote wise water use without concern for the impacts on its financial results. In short, the CAM better aligns the interests of customers and the Company.

As to the Public Staff's specific concerns: (1) CWSNC asserts that the Commission has inherent regulatory authority to adopt the CAM in this ratemaking proceeding; and (2) the Company fully accepts and anticipates that a comprehensive rulemaking proceeding would ensue, should the Commission conclude in this case that it is in the public interest to approve implementation of a CAM. In such a proceeding, the best decisions could be made about applicable procedures, whether they are the ones proposed by CWSNC herein or others to be determined.

Alternatively, witness DeStefano supported the Company's request that the Commission find it reasonable, necessary, and appropriate to direct the parties to develop a rate design that is based on a 60%:40% ratio of base facilities to volumetric charges for water. This would be a change from the current ratio of approximately 50%:50%, base to volumetric. The proposed ratio is needed to more closely align cost recovery with actual costs incurred, especially absent a CAM. In the supplemental testimony of Public Staff witness Casselberry, in response to a customer comment related to the level of base charges, Casselberry states: “[i]t is the Public Staff’s opinion that higher base charges do not encourage conservation” *(Tr. Vol. 7, p. 322, lines 19-20)* This exemplifies the throughput incentive conflict: The Public Staff believes that a lower base charge encourages conservation, which may be reasonable. However, absent a CAM to stabilize revenues, this adds revenue volatility to the utility due to a higher proportion of revenues being subject to the vagaries of seasonal weather patterns and any conservation measures adopted by customers. The Company is therefore not properly incentivized to promote conservation, and Public Staff’s position on rate design simply highlights the need to implement the CAM.

Finally, witness DeStefano disputed the Public Staff’s view that CWSNC is disqualified from arguing this alternative rate design position at this point. The Commission Order Establishing General Rate Case, Suspending Rates, Scheduling Hearings, and Requiring Customer Notice, dated May 22, 2018, specifically provided as follows:

> *The Commission may consider additional or alternative rate design proposals which were not included in the original application and may order increases or decreases in the utility rate schedules which differ from those proposed by the Applicant. However, any rate structure considered will not generate more overall revenues than requested….* (*Appendix A-2, Page 3 of 6)*

<u>Commission Conclusions</u>

The Commission concludes that a Consumption Adjustment Mechanism shall be deemed to be in the public interest in this case, and that a rulemaking proceeding shall be convened by separate docket.

First, the Commission is convinced that declining consumption is an issue to be addressed in rate design. The mode of dealing with it should address both the phenomenon of declining and of fluctuating consumption, in fairness both to the utility and the ratepayer.

Second, the Commission acknowledges its inherent regulatory authority in a general rate case to find such a mechanism to be in the public interest and to proceed to rulemaking to implement it. The Commission is sensitive to the Public Staff's policy preference for specific authorization by the General Assembly; it also notes that the Public Staff did not directly challenge the Commission's authority to adopt such a mechanism. In this instance, the Commission believes its inherent authority is sufficient to allow it to proceed to rulemaking in the matter. There are other ways to deal with the issue of declining consumption, such as adjustments to base facilities charges. However, the Public Staff offers no alternative means of addressing the persistent and founded industry concerns about the trend of declining consumption. It is time to proceed to consider a regulatory solution to the consumption issue that is fair to ratepayers and the utility.

Third, the concerns expressed by the Public Staff dealing with the construct and operation of the mechanism (for example, the 1% threshold and the impact of growth) can be dealt with in a comprehensive rulemaking proceeding, established by separate docket and open to all interested parties.

Fourth, the Commission is persuaded by witness DeStefano's position, which is affirmed by the Public Staff, that higher base charges do not adequately incentivize CWSNC to promote, or for its customers to pursue, a conservation ethic. It is clear that lower base charges would increase the Company's revenue volatility, due to seasonal weather fluctuations if not conservation, and such volatility would potentially impair CWSNC's ability to recover its authorized revenue requirement, which is needed to maintain a properly operating water and wastewater system.

Accordingly, for all of the reasons set forth above, the Commission finds good cause to conclude that CWSNC should be authorized to implement a CAM at such time as the Commission has conducted and concluded a rulemaking proceeding and has adopted the rules necessary to establish the appropriate framework for such mechanism.

EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NOS. 27 - 31
(Federal Tax Cuts and Jobs Act)

The evidence supporting these findings of fact is found in the Application, the testimony of Public Staff witnesses Boswell and Henry, and the direct and rebuttal testimony presented by Company witness DeStefano.

<u>Summary of Public Staff Testimony</u>

Public Staff witness Boswell's supplemental testimony presented her accounting and ratemaking adjustments regarding state Excess Deferred Income

Taxes ("EDIT"), federal protected EDIT, federal unprotected EDIT, and the overcollection of federal taxes since January 1, 2018. Her investigation included a review of the Application, testimony, exhibits, and other data provided by CWSNC. The Public Staff conducted extensive discovery in this matter, including the review of numerous data responses provided by the Company and participation in conference calls with the Company. Boswell Exhibit 1 presents the calculation of federal protected EDIT effects on the Company's rate base and income statement. Boswell Exhibit 2 sets forth the calculation of an annual Federal Unprotected EDIT Rider, which she proposes to be in effect for three years.

State EDIT. The Public Staff did not recommend an adjustment to state EDIT in this case, as the Company has been amortizing the applicable regulatory asset over a three-year period since its last rate case in Docket No. W-354, Sub 356.

Federal EDIT. In initial testimony, the Public Staff reserved the right to supplement its filing in this docket at a later date to include the flowback to ratepayers of EDIT related to the federal tax rate decrease. Upon review of the Company's later-filed information, witness Boswell recommended two adjustments based upon the information provided. The federal EDIT consists of two categories: protected and unprotected.

- Protected EDIT. Witness Boswell explained that the protected EDIT are deferred taxes related to timing differences arising from the utilization of accelerated depreciation for tax purposes and another depreciation method for book purposes. These deferred taxes are deemed protected because the Internal Revenue Service ("IRS") does not permit regulators to flow back the excess to ratepayers immediately, but instead requires that the excess be flowed back to ratepayers ratably over the life of the timing difference that gave rise to the excess, per Internal Revenue Code ("IRC") Section 203(e).

- Unprotected EDIT. EDIT resulting from all other timing differences are unprotected and can be flowed back to ratepayers however quickly regulators deem reasonable.

Public Staff EDIT Recommendations

Witness Boswell recommended three adjustments to flow the federal EDIT back to ratepayers, one relating to protected and two relating to unprotected. Witness Boswell proposed an adjustment to include the return of protected federal EDIT based upon the Company's calculation of the net remaining life of the timing differences. Boswell Exhibit 1 presented the impacts of the protected federal EDIT on rate base and the income statement. Public Staff witness Henry's Supplemental Exhibit I depicted the impact of the updated protected federal EDIT as shown on Boswell Exhibit 1.

For unprotected EDIT, witness Boswell recommended removing the entire EDIT regulatory liability associated with the unprotected differences from rate base and placing it in a rider to be refunded to ratepayers over three years on a levelized basis, with carrying costs. The immediate removal of unprotected EDIT from rate base increases the Company's rate base and mitigates regulatory lag that might occur from refunds of unprotected EDIT not contemporaneously reflected in rate base. The Company did not recommend any flowback of unprotected federal EDIT relating to the Tax Act in the present docket. The Public Staff asserted the tax normalization rules are clear – either EDIT is protected, or it is not. Witness Boswell maintained that excess taxes that have been previously recovered in rates, but will never be paid to the IRS, belong to the ratepayers and should be returned to them as soon as reasonably possible. She noted that the Company will continue to collect accumulated deferred income taxes ("ADIT") at a tax rate sufficient to meet its tax obligations. Furthermore, the Public Staff testified that it provided the Company with the benefit of removing the total amount of the unprotected EDIT credit from rate base in the current case, thus providing the Company with an increase in rates to moderate any potential cash flow issues. The financing cost to the Company will be imposed ratably over the period that the EDIT is returned through the levelized rider.

The Public Staff does not support the Company's proposal to apply the unprotected EDIT regulatory liability against deferred regulatory assets. The Public Staff believes that, in this case, offsetting known and measurable reductions in taxes to be paid going forward against either unknown future regulatory assets, or regulatory assets previously approved by the Commission for recovery over a specified period, presents intergenerational issues and constitutes inappropriate ratemaking. Witness Boswell explained that existing deferred regulatory assets are the result of accounting adjustments approved or adopted by the Commission, the purpose of which typically is to spread the recovery of incurred costs over a specified period (the amortization period).

Witness Boswell asserted the amortization period for each regulatory asset is approved by the Commission based upon its determination of what is fair and reasonable for the ratepayers with regard to the costs associated with that specific regulatory asset, or other specific factors taken into consideration by the Commission at the time of that approval. She explained that offsetting the new unprotected EDIT regulatory liability with the remaining unamortized portion of any regulatory asset would effectively override the Commission's prior decision as to the appropriate amortization period for the regulatory asset, by equalizing that remaining amortization period and the amortization period for the new EDIT regulatory liability. The Public Staff believes that the amortization periods for existing regulatory assets and the unprotected EDIT regulatory liability should be determined separately, based on the specific characteristics of each cost or benefit. Witness Boswell objected to utilizing a general rate case to offset flow-through of the benefit of reductions in a separate category of costs (income taxes), arguing that it was neither fair nor reasonable. She contended that currently offsetting unknown future possible regulatory assets or other costs against the EDIT liability would likewise be inappropriate, both because those costs are not currently known and actual, but also because doing so would be prejudging the appropriate amortization period for those future costs.

Public Staff Recommendation for Refund of Overcollection of Federal Taxes Due to the Federal Tax Cuts and Jobs Act Since January 1, 2018

Witness Boswell recommends that the Company refund to ratepayers the overcollection of federal taxes related to the decrease in federal tax rates for the period beginning January 1, 2018. She urges that the refund include corresponding interest calculated at the overall weighted cost of capital, and that it be made as a surcharge credit for a one-year period beginning when the new base rates become effective in the current docket.

The Public Staff believes that the Commission's October 8, 2018 Order in Docket No. M-100, Sub 148 made clear that the overcollection of federal taxes since January 1, 2018 should be flowed back to ratepayers. Witness Boswell testified that the refunds should be made as soon as possible and that they were due without regard to whether the Company achieved its authorized return. She explained that the actual return earned by a utility fluctuates over time, that it may fall below the approved rate of return for significant periods of time, that it is not guaranteed, and that rates as they exist at any moment in time are generally presumed to recover the utility's costs. She also contended that applying the future Commission-mandated refund of over-collected income taxes against a past return deficiency—even if CWSNC had one—would, in principle, constitute inappropriate retroactive ratemaking. She argues the interest should be calculated at the overall weighted cost of capital since the same methodology is utilized to calculate the revenue impacts of the collected taxes. Utilizing a lower rate would shortchange the ratepayers the full value of the refund, contends witness Boswell.

Summary of Company Testimony

First, the Application and the direct testimony presented by Company witness DeStefano reflected and incorporated the Company's adjustment of the federal corporate income tax rate to 21% in this rate case for revenue requirement calculations. Nevertheless, due to the fact that the Federal Tax Act was a singular event occurring outside of the Company's historic test period, CWSNC asserts that it should not be treated as a stand-alone event since many changes occur over the course of time.

Second, CWSNC argues the Federal Tax Act should not automatically trigger a refund to customers of revenues collected from January 1, 2018, until a final order is received in this proceeding (the Company's "Review Period"). Instead, CWSNC asserts that the Commission should carefully and thoroughly consider all items within the Company's revenue requirement, as it is doing in this rate case, to determine how the Federal Tax Act should be applied. The Company updated its original test year of December 31, 2017, with actual data as of June 30, 2018, which is approximately the midpoint between the Federal Tax Act taking effect and the date new rates in the current rate case will likely become effective.

Witness DeStefano contended that this reflects a fair representation of the Company's financial status in the Review Period. If the proper revenue requirement as determined by the Commission in this rate case meets or exceeds that of the Company's last rate case (excluding effects of the Federal Tax Act beyond the change in the income tax rate to 21%, such as amortization of EDIT), the Company asserts that this strengthens its claim not to have exceeded its authorized return. CWSNC argues that in this event, it should not be required to refund the additional revenues, which were associated with the higher tax rate and which were collected from January 1, 2018, until the implementation of new rates. The Company asserts that it is in a unique position relative to most other

North Carolina utilities, as the comprehensive financial review in this proceeding would directly support the retention of the Review Period funds by the Company to sustain its just-vetted operating needs.

Third, should a refund be required by order of the Commission in this rate case under any theory, the Company recommends that the credit be offset by the Company's existing deferred asset balances. Should a sur-credit approach be implemented for revenues recorded in the Review Period, the Company proposes to offset this credit balance with the unamortized deferred assets approved in this proceeding until the deferred assets are exhausted before implementing a sur-credit. Witness DeStefano recommends that any amount determined to be refunded should be credited to customers over one year, and accrue interest at an appropriate short-term interest rate, especially if refunds commence at or before January 1, 2019. He argues that the Company's position is more reasonable than the cost of capital rate, due to the funds being returned to customers approximately one year or less since they were billed. The Company proposes that any calculation of Review Period revenues to be refunded should identify the percent revenue reduction due to the decrease in income tax expense for each tariff group. This percentage would then be multiplied by the actual applicable revenues booked for the Review Period to determine the level of refund.

CWSNC originally presented a proposal for return of EDIT funds to customers in the direct testimony adopted and presented by witness DeStefano. For EDIT protected under IRS normalization rules, CWSNC proposed to apply the flow back in accordance with those rules. For EDIT neither protected by normalization rules nor related to PP&E, the Company proposed flow back over a 5-year period.

The Company updated its proposed treatment of the impact of the Federal Tax Act with the rebuttal testimony of witness DeStefano. He provided supporting workpapers for the protected federal EDIT balance and requested a 45-year amortization of this balance using the Reverse South Georgia method, inclusive of gross up, in accordance with IRS normalization rules. The Company was authorized in its last rate case to amortize state EDIT due to a recent tax rate change. The Company proposes combining the remaining state EDIT with the federal unprotected EDIT and offsetting the balance against the Company's various unamortized deferred maintenance assets in this proceeding. The particular deferred assets to be utilized in this calculation are shown in the testimony of Public Staff witness Feasel, Exhibit I, Schedule 2-10(a), and are comprised of tank painting, wastewater treatment plant painting, and wastewater pumping and hauling costs.

The Company believes, and the Public Staff's testimony confirms, there are sufficient deferred assets to offset the combined EDIT credit balance, with a focus on those asset balances closest to conclusion of their amortization period in order to best align this proposal with the Public Staff proposal of a three-year amortization period. This proposal would smooth customer impacts by netting balances due-to and due-from customers immediately, as opposed to initiating offsetting customer rates (recovery in base rates of deferred asset rate base and amortization, versus an EDIT credit "Rider") with different effective periods, which would result in uneven customer impact over the next several years and mask price signals otherwise considered in rate design. It will also mitigate cash flow concerns for the Company, as the lower tax rate going forward will lead to slower growth in the ADIT balance, which is a source of cash used for continued capital investment. Witness DeStefano argued that limiting interest payments required on refunds will also mitigate negative cash flow impacts. It will also avoid for both the Company and Public Staff the additional effort of implementing a new rider, tracking the balances, and potentially manually calculating interest. A similar proposal was recently accepted by the Regulatory Commission of Alaska in Docket U-18-042, Order No. 2.

Should the above proposal of offsetting deferred assets against the unprotected EDIT not be adopted, the Company alternatively reiterates its position articulated in the direct testimony presented by witness DeStefano, with a 5-year amortization of unprotected non-plant EDIT.

Finally, witness DeStefano testified that, should a sur-credit be implemented for revenues recorded in the Review Period, the Company proposes to offset this credit balance with the unamortized deferred assets approved in this proceeding until the deferred assets are exhausted before implementing a sur-credit. Any amount determined to be refunded should be credited to customers over one year, and accrue interest at an appropriate short-term interest rate, especially if refunds commence at or before January 1, 2019. This is more reasonable than the cost of capital rate due to the funds being returned to customers approximately one year or less since they were billed. The Company proposes that any calculation of Review Period revenues to be refunded should identify the percent revenue reduction due to the decrease in income tax expense for each tariff group. This percentage would then be multiplied by the actual applicable revenues booked for the Review Period to determine the level of refund.

Commission Conclusions

1. New rates should be established in this proceeding based upon the current federal corporate income tax rate of 21% specified in the Federal Tax Act.

2. There should be no adjustment to the state EDIT balance in this case, as the Company has been amortizing the applicable regulatory asset over a three-year period since its last rate case in Docket No. W-354, Sub 356.

3. The Commission recognizes that CWSNC is in a unique position with regard to assessing the implications of the change in federal corporate income tax rate concurrently with the thorough review of the Company's financial position in this general rate case --- the period of relevant data reasonably coincides with the Review Period considered for the tax rate change. Therefore, it is reasonable to conclude that, under the unique factual situation of this case, the Federal Tax Act should not automatically trigger a refund of overcollections from January 1, 2018, based upon the change in the tax rates for CWSNC. Rather, it is reasonable and appropriate to compare the revenue requirement authorized by the Commission in this proceeding to that authorized in the Company's last rate case.

4. Such a comparison of revenue requirements, excluding the new amortizations of federal protected and unprotected EDIT and rate case expenses from the current proceeding, indicates that the Company's authorized revenue requirement in this proceeding exceeds that which was approved in the prior rate case. Therefore, a refund of Review Period revenues related to the higher federal income tax rate is not warranted or appropriate.

5. The amortization of protected EDIT shall be governed by IRS normalization rules. In this proceeding, the Company and the Public Staff have agreed, and the Commission authorizes, that a 45-year amortization using the Reverse South Georgia method shall be used.

6. To mitigate fluctuations in recovery by the Company and thus customer rates and charges due to incongruous timelines of amortizations and rate effective dates, it is reasonable and appropriate to offset state and federal unprotected EDIT balances against identified deferred asset balances, with appropriate adjustments for rate base and amortization expense. The Public Staff's proposed EDIT Rider is, therefore, unnecessary and is hereby denied.

The Commission reaches these conclusions, in part, on the basis of the Joint Partial Settlement Agreement and Stipulation, but primarily on the basis of the credible testimony and recommendations offered by Company witness DeStefano. The positions taken by CWSNC on the Federal Tax Act issues are appropriate, fair, and reasonable to both the Company and its customers.

EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NOS. 32 - 33

(Capital Structure and Cost of Capital)

These findings of fact concern the Company's capital structure, its embedded cost of debt, and its cost of common equity. The evidence to support these findings is set forth in the testimony of CWSNC witness Dylan W. D’Ascendis and Public Staff witness John R. Hinton and the Joint Partial Settlement Agreement and Stipulation filed in this docket by CWSNC and the Public Staff on October 19, 2018.

In its Application, the Company requested an overall cost of capital between 8.91% and 9.12%. That request was based on a proposed capital structure of 47.11% long-term debt at an embedded cost rate of 6.00%, and 52.89% common equity at a return on common equity between 11.50% and 11.90%. The Company’s request was updated in rebuttal testimony to request an overall cost of capital between 8.29% and 8.49% based on an updated capital structure consisting of 49.09% long-term debt at an embedded cost rate of 5.68% and 50.91% common equity at an updated range of common equity cost rates between 10.80% and 11.20%. Pursuant to the Partial Settlement Agreement and Stipulation, CWSNC and the Public Staff have agreed that a capital structure consisting of 49.09% long-term debt at an embedded cost rate of 5.68% and 50.91% common equity is appropriate for use in this proceeding. CWSNC and the Public Staff do not, however, agree on the appropriate cost of equity in this case.

<u>Capital Structure and Cost of Long-Term Debt</u>

The Partial Settlement Agreement and Stipulation, as filed in this docket, provides, in pertinent part, that the capital structure appropriate for use in this proceeding is a capital structure consisting of 49.09% long-term debt at and embedded cost rate of 5.98% and 50.91% common equity.

The Commission finds and concludes that the stipulated capital structure agreed to by CWSNC and the Public Staff comprised of 49.09% long-term debt and 50.91% common equity is reasonable and appropriate for determining an allowed rate of return for the Company in this proceeding. In addition, the Commission further finds and concludes that the stipulated long-term debt cost rate of 5.68% is reasonable and appropriate for CWSNC in this proceeding.

Common Equity Cost Rate

Company witness D'Ascendis testified that, because CWSNC's common stock is not publicly traded, a market-based common equity cost rate cannot be determined directly for the Company. Consequently, in arriving at his updated recommended range of common equity cost rates between 10.80% and 11.20%, he assessed the market-based common equity cost rates of companies of relatively similar, but not necessarily identical risk, i.e., proxy group(s) for insight into a recommended common equity cost rate applicable to CWSNC and suitable for cost of capital purposes. Mr. D'Ascendis noted that no proxy group(s) can be selected to be identical in risk to CWSNC. Therefore, the proxy group(s)' results must be adjusted, if necessary, to reflect the unique relative financial and/or business risk of the Company.

Mr. D’Ascendis' recommendation results from the application of market-based cost of common equity models, the Discounted Cash Flow (“DCF”) approach, the Risk Premium Model (“RPM”) and the Capital Asset Pricing Model (“CAPM”) for his proxy group of six water companies. In addition, witness D’Ascendis selected a group of domestic, non-price regulated companies comparable in total risk to the proxy group of water companies, applying the DCF, RPM, and CAPM to them in accordance with the opportunity cost standards articulated in Federal Power Commission v. Hope Natural Gas Co., 320 U.S. 591 (1944), and Bluefield Water Works Improvement Co. v. Public Serv. Comm'n, 262 U.S. 679 (1922).

The results of these models, as set forth by witness D’Ascendis in his direct testimony, are as follows:

	Utility Proxy Group
Discounted Cash Flow Model	9.15%
Risk Premium Model	10.73%
Capital Asset Pricing Model	10.93%
Cost of Equity Models Applied to Comparable Risk, Non-Price Regulated Companies	12.43%
Indicated Common Equity Cost Rate Before Adjustments	10.80%
Size Adjustment	0.40%
Recommended Range of Common Equity Cost Rates	10.80% - 11.20%

After reviewing the cost rates based upon these models, witness D'Ascendis asserted in his direct testimony that a common equity cost rate of 10.80% is indicated before any adjustment for business risk related to CWSNC's smaller size relative to the proxy group of six water companies. The indicated common equity cost rate based upon the six water companies was adjusted upward by 40 basis points (0.40%) to reflect CWSNC's increased business risk, as noted above. After adjustment, the risk-adjusted common equity cost rate is 11.20% for the water company proxy group. The unadjusted indicated common equity cost rate of 10.80% and the size adjusted common equity cost rate of 11.20% supports Mr. D'Ascendis' recommended range of common equity cost rates for CWSNC.

In rebuttal testimony, Mr. D'Ascendis disagreed with Public Staff witness Hinton that a 9.20% common equity rate is appropriate for CWSNC and stated that the Public Staff's recommendation would not be sufficient to maintain the integrity of presently invested capital and permit the attraction of needed new capital at a reasonable cost in competition with other firms of comparable risk.

Witness D'Ascendis also disagreed with Mr. Hinton's exclusion of the CAPM and comparable earnings model ("CEM"), both of which Hinton used as a check on his DCF and RPM in a previous proceeding involving Aqua North Carolina, Inc. (Docket No. W-218, Sub 319). According to witness D'Ascendis, both the academic literature and Commission precedent support the use of multiple models in determining a return on common equity. Mr. D'Ascendis then supplemented Mr. Hinton's analysis with a CAPM and CEM, which had indicated results of 10.93% and 12.49%, respectively.

Witness D'Ascendis objected to Mr. Hinton's DCF analysis and he also took issue with Mr. Hinton's use of historical growth rates in earnings per share ("EPS"), dividends per share ("DPS"), and book value per share ("BVPS") as well as his use of projected growth rates in DPS and BVPS. Witness D'Ascendis asserted that it is appropriate to rely exclusively upon security analysts' forecasts of EPS growth rates in a DCF analysis for multiple reasons.

First, individual investors who could potentially invest in utility stocks generally have more limited informational resources than institutional investors and are therefore likely to place greater significance on the opinions and projections expressed by financial information services such as Value Line Investment Survey ("Value Line"). Reuters, Zacks and Yahoo! Finance are all easily accessible and/or available on the Internet and through public libraries. Security analysts have significant insight into the dynamics of the industries and individual companies they analyze, as well as companies' abilities to effectively manage the effects of a changing industry, economic or market environment.

Second, over the long run, there can be no growth in DPS without growth in EPS. Security analysts' earnings expectations have a more significant, but not exclusive, influence upon market prices than dividend expectations, providing a better matching between investors' market price appreciation expectation and the growth component of the DCF model. Third, there is academic support for the superiority of analysts' forecasts of growth in EPS as the growth component in the

DCF model. Mr. D'Ascendis asserted that witness Hinton should have relied exclusively upon the Value Line and Yahoo! Finance EPS forecasts.

Mr. D'Ascendis also disagreed with Mr. Hinton's application of his RPM because of his use of annual average authorized returns on equity for water companies instead of using individual cases and his use of current interest rates instead of projected interest rates. According to witness D'Ascendis. using current or historical measures, such as interest rates, are inappropriate for cost of capital and ratemaking purposes because they are both prospective in nature.

In addition, Mr. D'Ascendis disagreed with Mr. Hinton on risk. Witness D'Ascendis emphasized that because it is the rate base of a specific regulated jurisdictional utility to which a regulatory allowed rate of return will be applied, it is the unique risk of that rate base which needs to be reflected in the allowed rate of return, including any additional risk due to small size. In addition, the corporate structure of the owners of that rate base is irrelevant as it is the use of the funds which gives rise to the investment risk, not the source of those funds. It matters not whether the rate base is held privately, by a municipality, by a large holding company, by a small holding company, by an equity investment fund, multiple shareholders or a single shareholder. Only the riskiness of the particular rate base is relevant. The size of any given jurisdictional rate base is not arbitrary; it is what it is, and it is imminently relevant relative to the size of any publicly-traded utilities from whose market data a common equity cost rate recommendation is derived. Therefore, there is no incentive for "large existing utilities to form subsidiaries when merging or even to split-up into subsidiaries" because it is the risk of the regulated rate base which is relevant.

In response to Mr. Hinton's claim that Mr. D'Ascendis' size adjustment was rejected in a prior case, Mr. D'Ascendis presented a more robust size study, which included eight measures of size. Indicated upward adjustments based on these measures range from 0.94% to 2.18%, which reinforces Mr. D'Ascendis' conservative upward adjustment of 0.40%.

Mr. D'Ascendis testified that Mr. Hinton's corrected cost of common equity analysis results in a common equity cost rate of 10.62% for Hinton's comparable group of water utilities before adjustment for CWSNC's increased risk relative to the proxy group.

In his direct testimony, Public Staff witness Hinton testified that to determine the fair rate of return, he performed a cost of capital study consisting of three steps. First, he determined the appropriate capital structure for ratemaking purposes; i.e., the proper proportions of each form of capital. Utilities normally finance assets with debt and common equity. Because each of these forms of capital have different costs, especially after income tax considerations, the relative amounts of each form employed to finance the assets can have a significant influence on the overall cost of capital, revenue requirements, and rates. Thus, the determination of the appropriate capital structure for ratemaking purposes is important to the utility and to ratepayers. Second, witness Hinton stated that he determined the cost rate of each form of capital. The individual debt issues have contractual agreements explicitly stating the cost of each issue. The embedded annual cost of debt may be calculated by simply considering these agreements and the utility's books and records. The cost of common equity is more difficult to determine, because it is based on the investor's opportunity cost of capital. Various economic and financial models or methods are available to measure the cost of common equity. Third, by combining the appropriate capital structure ratios for ratemaking purposes with the associated cost rates, witness Hinton testified that he calculated an overall weighted cost of capital or fair rate of return.

Witness Hinton testified that he used the DCF model and the Risk Premium model to determine the cost of equity for the Company. Based upon his DCF analysis, witness Hinton determined that a reasonable expected dividend yield is 2.1% with an expected growth rate of 6.1% to 7.1%. As such, the analysis produced a cost of common equity for the comparable group of water utilities of 8.20% to 9.20%.

Witness Hinton testified that his summary data of risk premiums shown on Exhibit JRH-4, page 1 of 2 indicated that the average risk premium is 4.95% with a maximum premium of 5.78% and minimum premium of 3.73%, which, when combined with the last six months of A-rated bond yields, produces yields with an average cost of equity of 9.17%, a maximum cost of equity of 10.00%, and a minimum cost of equity of 7.95%. Witness Hinton further stated that he performed a statistical regression in order to quantify the relationship of allowed equity returns and bond costs. He stated that his Exhibit JRH-4, page 2 of 2 is a regression analysis of the data that indicated a significant statistical relationship of the allowed equity returns and bond costs, such that a one percent decrease in the bond cost corresponds to an increase of approximately 26 basis points in the equity risk premium. While various studies on the cost of equity capital have differed on the level of the negative relationship of interest rates and risk premiums, there has been agreement that as interest rates fall, there is an increase in the premium. Witness Hinton stated that applying this relationship to the current utility bond cost of 4.22% resulted in a current estimate of the cost of equity of 9.70% which reflects a risk premium of 5.48%.

Witness Hinton stated that, based on all of the results of his DCF model that indicate a cost of equity from 8.20% to 9.20% with a central point estimate of 8.70% and Risk Premium model that indicates a cost of equity of 9.70%, he determined that the investor required rate of return for CWSNC is between 8.70% and 9.70%. Witness Hinton than stated that he further concluded that 9.20% was his single best estimate of the Company's cost of common equity.

In regard to reasonableness assessment with financial risk, witness Hinton stated that he considered the pre-tax interest coverage ratio produced by his cost of capital recommendation. Based on the recommended capital structure, cost of debt, and equity return of 9.20%, the pre-tax interest coverage ratio is approximately 3.7 times. According to witness Hinton, this level of pre-tax interest coverage should allow CWSNC to qualify for a single "A" bond rating.

Commission Conclusions Regarding Common Equity Cost Rate and Overall Cost of Capital

Prominent among the disputed issues in this case is the question of the just, reasonable, and appropriate rate of return on common equity and the overall return on rate base to be used in setting the Company's rates. The Commission has hereinabove approved a capital structure consisting of 49.09% long-term debt at an embedded cost of 5.68% and 50.91% common equity for CWSNC. In addition, the Commission must allow the Company the opportunity, by sound management, to produce a fair return for its shareholders in this case, considering changing economic conditions and other factors, including, but not limited to, the ability to compete in the market for capital funds on terms that are reasonable and fair to its customers and to its existing investors. Based on the record in this case, CWSNC maintains that the Commission should provide the Company the opportunity to earn a return on rate base between 8.29% and 8.49% which includes a return on common equity between 10.80% and 11.20%. The Public Staff recommends a return on common equity for CWSNC of 9.20%.

The testimony of CWSNC's expert witness, Dylan W. D'Ascendis, established that because the Company's common stock is not publicly traded, a market-based common equity cost rate cannot be determined directly for the Company. Consequently, in arriving at his range of recommended common equity cost rates between 10.80% and 11.20%, Mr. D'Ascendis assessed the market-based common equity cost rates of companies of relatively similar---but not necessarily identical---risk [i.e., proxy group(s)] for insight into a recommended common equity cost rate applicable to CWSNC and suitable for determination of a reasonable and appropriate cost of capital. Witness D'Ascendis noted that no proxy group(s) can be selected to be identical in risk to

CWSNC. Therefore, the proxy group(s)' results must be adjusted, if necessary, to reflect the unique relative financial and/or business risk of the Company.

Mr. D’Ascendis’ recommendation results from the application of market-based cost of common equity models, the DCF approach, the RPM, and the CAPM for the proxy group of six water companies. In addition, Mr. D’Ascendis selected a group of domestic, non-price regulated companies comparable in total risk to the proxy group of water companies, applying the DCF, RPM and CAPM to them in accordance with the opportunity cost standards established in relevant legal decisions.

Mr. D’Ascendis disagreed with Public Staff witness Hinton's view that a 9.20% common equity rate is appropriate for CWSNC and stated that Mr. Hinton’s recommendation would not be sufficient to maintain the integrity of presently invested capital and permit the attraction of needed new capital at a reasonable cost in competition with other firms of comparable risk. The Commission agrees with CWSNC witness D’Ascendis on this point.

Mr. D’Ascendis explained that the indicated common equity cost rate based upon the six water companies was adjusted upward by 40 basis points (0.40%) to reflect CWSNC's increased business risk as noted above. After that adjustment, the Company's risk-adjusted common equity cost rate is 11.20% for the water company proxy group which supports the high end of Mr. D’Ascendis' recommended range of the common equity cost rate for CWSNC.

Risk is a legitimate component of the analysis that the Commission must make in fixing a rate of return for CWSNC that will allow the Company to compete in the market for capital funds on terms that are reasonable and that are fair to its customers and to its existing investors.

> As a practical matter, apart from constitutional right, the utility must be able to attract from volunteer investors additional capital, as required from time to time for the expansion or improvement of its service. Here, the principles of the Free Enterprise System do come into play, for the utility must win the favor of the free, volunteer investor in competition with all other investment options available to him. This the utility does by offering the investor an opportunity to earn on his investment at a rate which, considered together with the risk of loss of part or all of the principal of his investment, outweighs, in his opinion, the corresponding prospects and risks in those other types of investment.
>
> *State ex rel. Utilities Commission v. General Telephone* Co., 281 N.C. at 337 (citations omitted).

As shown in Mr. D'Ascendis' testimony, implementation of this adjustment yields an appropriate common equity cost rate for CWSNC of 11.20%. When applied to the proposed CWSNC 49.09% long-term debt, 50.91% common equity capital structure and the Company's long-term debt cost rate of 5.68%, this results in an overall cost of capital for CWSNC of 8.49%. Based on the record in this proceeding, the Commission finds good cause to accept and approve witness D'Ascendis' recommended common equity and finds that the Company should be authorized a return on common equity of 11.20% and an overall return on rate base of 8.49%.

G.S. 62-133(b)(4) requires the Commission to fix rates for service which will enable a public utility, by sound management, to produce a fair profit for its stockholders, in view of current economic conditions, maintain its facilities and services and compete in the market for capital, and no more. This is the ultimate objective of ratemaking. Utilities Commission v. General Telephone Company, 281 N.C. 318, 189 S.E.2d 705 (1972). The Commission is of the opinion that there is adequate evidence in the record to support witness D'Ascendis' proposed return on equity of 11.20% and that such return should allow CWSNC to properly maintain its facilities and services, provide adequate service to its customers, and produce a fair return, thus enabling the Company to attract capital on terms that are fair and reasonable to its customers and investors. Consequently, the Commission finds and concludes that a return on common equity of 11.20% and an overall rate of return of 8.49% for CWSNC in this case are just and reasonable and should be approved, considering the impact of changing economic conditions on customers and relevant statutory and case law.

Regarding consideration of the impact of changing economic conditions on customers, CWSNC witness D'Ascendis, in his direct testimony, provided an excellent review of that issue, including a comprehensive assessment and analysis. Witness D'Ascendis noted that, as the Commission has stated, it "…is and must always be mindful of the North Carolina Supreme Court's command that the Commission's task is to set rates as low as possible consistent with the dictates of the United States and North Carolina Constitutions."[10] In that regard, the cost of common equity should be neither excessive nor confiscatory; it should

[10] State of North Carolina Utilities Commission, Docket No. E-7, Sub 1026, Order Granting General Rate Increase, Sept. 24, 2013 at 24; see also DEC Remand Order at 40 ("the Commission in every case seeks to comply with the North Carolina Supreme Court's mandate that the Commission establish rates as low as possible within Constitutional limits.").

be the minimum amount needed to meet the *Hope* and *Bluefield* Comparable Risk, Capital Attraction, and Financial Integrity standards.

In his analysis, witness D'Ascendis correctly noted the Commission also has found that the role of cost of capital experts is to determine the investor-required return, not to estimate increments or decrements of that return in connection with consumers' economic environment:

> …adjusting investors' required costs based on factors upon which investors do not base their willingness to invest is an unsupportable theory or concept. The proper way to take into account customer ability to pay is in the Commission's exercise of fixing rates as low as reasonably possible without violating constitutional proscriptions against confiscation of property. This is in accord with the "end result" test of Hope. This the Commission has done.[11]

The Supreme Court agreed, and upheld the Commission's Order on Remand.[12] The Supreme Court also made clear, however, that "in retail electric service rate cases the Commission must make findings of fact regarding the impact of changing economic conditions on customers when determining the proper ROE for a public utility."[13] The Commission made such additional findings of fact in its Order on Remand.[14] In light of the Cooper I decision, witness

[11] State of North Carolina Utilities Commission, Docket No. E-7, Sub 989, Order on Remand, October 23, 2013, at 34 - 35; see also DEC Remand Order at 26 (stating that the Commission is not required to "isolate and quantify the effect of changing economic conditions on consumers in order to determine the appropriate rate of return on equity").
[12] State ex rel. Comm'n v. Cooper, 366 N.C. 484, 739 S.E.2d 541 (2013) (Cooper I).
[13] State of North Carolina ex rel. Utilities Commission v. Cooper, 758 S.E.2d 635, 642 (2014) ("Cooper II").
[14] State of North Carolina Utilities Commission, Docket No. E-22, Sub 479, Order on Remand, July 23, 2015, at 4-10.

D'Ascendis testified that he presented the following measures of economic conditions in the State and in the nation for the Commission to consider:

(i) Unemployment rates from the United States, North Carolina, and the counties comprising CWSNC's service territory;

(ii) The growth in Gross National Product ("GDP") in both the United States and North Carolina;

(iii) Median household income in the United States and in North Carolina; and

(iv) National income and consumption trends.

Witness D'Ascendis then discussed each of these measures and concluded that, in its Order on Remand in Docket No. E-22, Sub 479, the Commission observed that economic conditions in North Carolina were highly correlated with national conditions, such that they were reflected in the analyses used to determine the cost of common equity.[15] Witness D'Ascendis testified in this case that those relationships still hold: economic conditions in North Carolina continue to improve from the recession following the 2008/2009 financial crisis, and they continue to be strongly correlated to conditions in the U.S., generally. In particular, unemployment, at both the State and county level, continues to fall and remains highly correlated with national rates of unemployment. Real Gross Domestic Product recently has grown faster in North Carolina than the national rate of growth, although the two remain fairly well-correlated. Additionally, median

[15] State of North Carolina Utilities Commission, Docket No. E-22, Sub 479, Order on Remand, July 23, 2015, at 39.

household income has grown faster in North Carolina than the rest of the Country and remains strongly correlated with national levels. In sum, the correlations between statewide measures of economic conditions noted by the Commission in Docket No. E-22, Sub 479 remain in place and as such, they continue to be reflected in the models and data used to estimate the cost of common equity.

The Commission agrees with Mr. D'Ascendis' assessment of the impact of changing economic conditions in this case. Accordingly, for all of the reasons set forth above, the Commission finds and concludes that (a) the Joint Partial Settlement Agreement and Stipulation filed in this docket on October 19, 2018, by CWSNC and the Public Staff, regarding the reasonableness of the stipulated capital structure and cost of long-term debt, adequately supports approval of a reasonable and appropriate capital structure consisting of 49.09% long-term debt at an embedded cost rate of 5.68% and 50.91% common equity for CWSNC; (b) the testimony of Company witness D'Ascendis supports and justifies approval of a cost of common equity of 11.20% for CWSNC in this proceeding; (c) this capital structure and the approved costs for long-term debt and equity are just and reasonable and appropriate for use in setting rates in this proceeding; and (d) the just, reasonable, and appropriate components of the rate of return for CWSNC, considering the impact of changing economic conditions on customers and relevant statutory and case law, are as follows:

a. Long-Term Debt Ratio	49.09%
b. Common Equity Ratio	50.91%
c. Embedded Cost of Debt	5.68%
d. Return on Common Equity	11.20%
e. Overall Weighted Rate of Return	8.49%

EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NOS. 34 - 36
(Rate Design Issues and Metered Water Rate Design Structure)

Summary of Rate Case Application and Company Direct Testimony

The proposed water rates filed by the Company as part of its Rate Case Application, which was filed in this docket on April 27, 2018, were based upon a fixed-to-variable ratio of 53% fixed for the base facility charge and 47% variable for the usage charge.

As part of its Rate Case Application and as a matter of rate design in this case, CWSNC proposed no rate changes for customers in the Company's Corolla Light/Monteray Shores ("CLMS") service area. Regarding the CLMS service area, CWSNC stated that its 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 three general rate cases (Docket Nos. W-354, Subs 336, 344, and 356) and will continue the orderly process of moving the CLMS service area toward full inclusion in the Company's uniform water and sewer rates in future general rate cases.

Paragraph 25 of the Company's Rate Case Application stated that, in Paragraph No. 15 (entitled, "Metered Sewer Rates") of the Joint Stipulation between CWSNC and the Public Staff filed in the Sub 356 rate case on September 9, 2017, the Company agreed 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. (Footnote omitted)

In the Rate Case Application, CWSNC stated that, after careful consideration, the Company decided to file its Application premised upon continuation of flat rate sewer service for customers in its Fairfield Harbour, Bradfield Farms, and Sapphire Valley service areas, but that the Company was willing to discuss this matter with the Public Staff and reserved the right, after such consultation, to either affirm the current decision to continue flat rates or, instead, propose metered rates for the three service areas in question. Importantly, CWSNC further stated that any consultation with the Public Staff would, however, need to include a comprehensive discussion of, and agreement to, the appropriate fixed-to-variable revenue ratio used to design metered sewer rates, if ultimately agreed to and proposed.

CWSNC witness DeStefano testified on direct that, as an alternative proposal to CWSNC's requested Consumption Adjustment Mechanism ("CAM"), the Company requested that the Commission find it reasonable, necessary, and appropriate to direct the parties to develop a rate design that is based on a 60%:40% ratio of base facilities to volumetric charges for water. This would be a change from the Company's current ratio of approximately 50%:50%, base to volumetric. According to witness DeStefano, the proposed ratio is needed to more closely align cost recovery with actual costs incurred. With the current ratio of 50%:50%, the recovery to actual costs incurred is not properly aligned.

Currently, the Company is experiencing an actual cost ratio of approximately 80%:20% fixed-to-variable, yet rates are designed with a 50%:50% ratio for fixed and variable. This misalignment hinders the Company's ability to earn its fair and reasonable return should consumption continue its decline (which the Company expects will occur). The consumption trend across the industry is currently one of decline due to conservation efforts, more efficient fixtures, etc. Witness DeStefano testified that the current rate design reduces the Company's ability to promote conservation efforts without negatively impacting its ability to earn a fair and reasonable return.

Summary of Public Staff Testimony

Public Staff witness Casselberry testified that in CWSNC's last general rate case, Docket No. W-354, Sub 356, the Public Staff recommended that CWSNC consider implementing metered sewer rates for customers in its Sapphire Valley, Fairfield Harbour, and Bradfield Farms Subdivision service areas, and reserved the right to independently propose metered sewer rates for these systems. Witness Casselberry stated that as part of the settlement agreement in the Sub 356 case, CWSNC supported the recommendation and agreed to undertake such consideration in conjunction with its next general rate case. Witness Casselberry noted that, in this proceeding, CWSNC decided not to implement metered sewer rates for customers in those service areas. Witness Casselberry testified that the Public Staff still maintains the position that in order to be fair to all uniform sewer customers, sewer customers in Sapphire Valley, who also have metered water, should be charged the same rate as all of the other uniform metered sewer customers.

Witness Casselberry testified that, since sewer customers in Sapphire Valley were incorporated into CWSNC's uniform sewer rate division, they should be charged the same rate as other metered sewer customers within that rate division. In addition, customers with multiple units behind a master meter should be billed the same way as the other master metered customers, which specifies that 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 as stated in the schedule of rates for water and sewer service.

Witness Casselberry also testified that it was also the Public Staff's position that since Bradfield Farms and Fairfield Harbour ("BF/FH") are in their own separate rate division and all of the customers in that rate division have flat sewer rates and the Public Staff received only one complaint concerning the flat rate, the Public Staff agreed with the Company that the flat rate should remain for the BF/FH rate division. However, in the future, should the rate division for BF/FH be eliminated and customers are incorporated into the CWSNC uniform sewer rate division, they too should be charged the metered sewer rate for customers who also have metered water. Witness Casselberry testified that it was also her understanding that the Company agreed with the Public Staff's recommendation that customers in Sapphire Valley should be billed the uniform metered sewer rate and that customers in BF/FH should be billed a flat sewer rate in this general rate case.

Regarding the customers in the Linville Ridge Subdivision and The Ridges at Mountain Harbour ("The Ridges"), witness Casselberry testified that since CWSNC's last general rate case, water meters have been installed for all the residential customers in Linville Ridge and The Ridges. Both systems are located in the mountains and are considered seasonal mountain systems, since many of the customers are only active during the summer months and holidays. Witness Casselberry testified that she had evaluated the consumption for the other seasonal mountain systems and determined that the average residential monthly consumption is 1,920 gallons. She stated that it was her understanding that CWSNC has agreed that using 1,920 gallons as the estimated consumption for calculated revenue is reasonable and acceptable for Linville Ridge and The Ridges.

According to witness Casselberry, The Ridges is a purchased sewer system. CWSNC purchases sewage treatment from Clay County Water and Sewer District. Clay County charges a flat bi-monthly rate of $1,621.24. Based on the billing data provided, there are 44 single family equivalents ("SFE's"). The base facility charge per SFE is $18.42 ($1621.24/2 months/44 SFE). Witness Casselberry recommended the following base facility charges:

Residential customers	
< 1-inch meter	$18.42
Commercial customers:	
< 1-inch meter	$18.42
2-inch meter	$147.36

Witness Casselberry testified that it was her understanding that CWSNC agreed with the Public Staff's recommended base facility charges for The Ridges.

Witness Casselberry further testified that CWSNC proposed, as an alternative to a CAM, that the Commission direct the parties to develop a rate design that is based on a 60%:40% ratio of base charge to usage charge for water versus the current ratio of approximately 50%:50%, which is accurate. Based upon End of Period ("EOP") residential customers for uniform rates, with meters less than one inch, and actual consumption for the test year period ending December 31, 2017 (not including Elk River or purchased water customers), the current ratio is 47%:53% base charge-to-usage charge. She referenced Company testimony which stated that the actual cost ratio is approximately 80%:20% fixed costs to variable costs and that the current rate design reduces the Company's ability to promote conservation without negatively impacting its ability to earn a fair and reasonable rate of return.

Witness Casselberry testified that the Public Staff opposes using CWSNC's alternative to a CAM in this proceeding. She stated that it was the Public Staff's opinion that CWSNC should have made it known to the Commission, the Public Staff, and its customers that the Company intended to substitute a CAM with an alternate rate design, should the Commission deny their request. As a result, witness Casselberry claimed that the Company did not provide the Public Staff sufficient time to further investigate the matter, nor were customers notified that an alternate rate design was being considered and what effect the new rate design would have on the proposed rates, particularly the base charge, which has been a contentious issue at customer hearings. Therefore, witness Casselberry stated that the Public Staff recommended that the ratio remain in the range of 45%:55% base charge-to-usage charge, which is consistent with what has been recommended in the past.

In her supplemental testimony, witness Casselberry reiterated her prior direct testimony, wherein she stated that the Public Staff opposes the Company's alternative rate design, which would increase the base charge-to-usage charge ratio from 47%:53% to 60%:40%. She stated that it was the Public Staff's opinion that higher base charges do not encourage conservation. The Public Staff recommended that the ratio remain in the range of 45%:55% base charge- to-usage charge, which is consistent with what has been recommended in the past.

Regarding the issue of metered rates for Linville Ridge and The Ridges, witness Casselberry testified that the Public Staff recommends uniform metered water rates for Linville Ridge and The Ridges. The Public Staff also recommends purchased sewer rates for The Ridges. Witness Casselberry stated that it is the Public Staff's understanding that the Company agrees with the Public Staff's recommendation.

Witness Casselberry testified that Carolina Trace is a purchased water system. The supplier is the City of Sanford ("City"). The usage rate is established based on the supplier's rate. The existing usage charge is $2.21 per 1,000 gallons. Under the general statutes, utility companies may petition the Commission for a pass-through outside of a general rate case. This allows a company to directly pass on to customers the increased cost of purchased water. In this proceeding, there is no change in the City's usage charge and, therefore, CWSNC is proposing the same usage charge as the existing usage rate. However, witness Casselberry testified that since Carolina Trace is in the uniform water rate division, should the base charge for uniform rates increase, the new rate would apply to Carolina Trace as well.

On cross-examination, witness Casselberry testified that the Public Staff believes that the higher the consumption rate is, the more it will help with conservation. In addition, witness Casselberry testified that base charges are getting extremely high and that it is becoming difficult for CWSNC customers to pay the base charges, which she said the Public Staff heard in testimony across the state. Witness Casselberry further stated that the Public Staff feels that a 40% base charge is a reasonable amount to recover the Company's fixed cost and the 60% would be applied to the usage.

Witness Casselberry further stated on cross-examination that, in the Company's last rate case, the Public Staff calculated that the Company's water costs were about 75% fixed. Witness Casselberry testified that she calculated CWSNC's current rate design ratio to be 47% fixed for the base charge and 53% variable for the usage charge. However, she stated that the Public Staff would like to take the ratio closer to a 40%:60% ratio in this case. She stated that it is the Public Staff's position that higher usage charges promote conservation and that when you increase the base charge and reduce the consumption charge, customers have a tendency to use more water and they have less control over their water bill. So, the higher the base charge goes, then customers have less ability to reduce their bills.

Summary of Company Rebuttal Testimony

Company witness DeStefano testified on rebuttal that, if the Commission does not approve implementation of CWSNC's proposed CAM, the Company alternatively requested that the Commission find it reasonable, necessary, and appropriate to direct the parties to develop a rate design that is based on a 60%:40% ratio of base charges-to-volumetric charges for water. This would be a change from the current ratio of approximately 50%:50%, base-to-volumetric. The proposed ratio is needed to more closely align cost recovery with actual costs incurred, especially absent a CAM. Witness DeStefano stated that, in the supplemental testimony of Public Staff witness Casselberry, in response to a customer comment related to the level of base charges, Casselberry stated: "[i]t is the Public Staff's opinion that higher base charges do not encourage conservation." This exemplifies the throughput incentive conflict: The Public Staff believes a lower base charge encourages conservation, which may be reasonable. However, absent a CAM to stabilize revenues, this adds revenue volatility to the Company due to a higher proportion of revenues being subject to the unpredictability and vagaries of seasonal weather patterns and any conservation measures adopted by customers. The Company is therefore not properly incentivized to promote conservation, and the Public Staff's position on rate design highlights the need to implement the CAM.

In addition, witness DeStefano disagreed with the Public Staff's position that CWSNC is disqualified from arguing this rate design position at this point. He stated that the Commission *Order Establishing General Rate Case, Suspending Rates, Scheduling Hearings, and Requiring Customer Notice*, dated May 22, 2018, specifically provided as follows:

> The Commission may consider additional or alternative rate design proposals which were not included in the original application and may order increases or decreases in the utility rate schedules which differ from those proposed by the Applicant. However, any rate structure considered will not generate more overall revenues than requested.
> *(See Appendices A-1, p. 5 of 9; A-2, p. 3 of 6, and A-3, p. 3 of 5)*

Commission Conclusions

In this case, CWSNC requested authority to implement a CAM, which the Commission has approved. In conjunction with the Company's CAM request, CWSNC also proposed a metered water rate structure for purposes of designing rates in this proceeding consisting of 53% fixed revenues for the base facility charge and 47% variable revenues for the commodity or usage charge. Alternatively, if the proposed CAM was not approved, the Company proposed a ratio of 60% fixed revenues to 40% variable revenues for rate design purposes.

Consistent with our decision elsewhere discussed in this Order to approve implementation of a CAM[16] for CWSNC, the Commission concludes that the Company's proposed metered water rate design request is reasonable and appropriate and should be approved. In so ruling, the Commission concludes that

[16] Had the Commission not approved the CAM mechanism in this case, the Commission would have, instead, approved a water rate design ratio of 60% fixed revenues to 40% variable revenues for rate design purposes as proposed by the Company.

the approved metered water rate design ratio of 53% for the base facilities charge and 47% for the variable consumption charge will help to minimize the Company's demonstrated risk which results from consistently declining consumption by customers and fluctuating seasonal weather impacts. The Commission further concludes that the rate design approved herein represents a fair and reasonable balance between the Company's fixed and variable costs. It is also fair and reasonable to both CWSNC and its customers.

Conversely, the rate design proposed by the Public Staff is weighted too heavily toward variable costs, particularly in consideration of the fact that even witness Casselberry testified that approximately 75%[17] of the Company's water service costs are fixed. (Tr. Vol. 7, p. 343, lines 9-19). The Public Staff's proposed rate design ratio moves in the wrong direction, when compared to the fixed and variable recoveries reflected in CWSNC's current rates. It is also reasonable to conclude that, while the Public Staff's laudable stated goal is to encourage conservation through a decline in consumption, the Staff's proposed rate design could also have the unintended effect of making it even more difficult for the Company to achieve and earn its allowed return and diminishing the Company's incentive to promote conservation of a natural resource by its customers and, ultimately, drive more frequent general rate case filings.

[17] CWSNC witness DeStefano testified that 80% of the Company's water service costs are fixed.

The Commission also approves the following specific rate design proposals made by Public Staff witness Casselberry which were agreed to by the Company:

1. Sewer customers in Sapphire Valley, who were incorporated into CWSNC's uniform sewer rate division, should be charged the same rate as other metered sewer customers within that rate division.
2. Sewer customers in Bradfield Farms and Fairfield Harbour should continue to be charged a flat rate. However, if those systems are incorporated into uniform rates in the future, they should conform to the Company's uniform metered sewer rate.
3. CWSNC's uniform metered water rates should be charged to customers in Linville Ridge and at The Ridges at Mountain Harbor based on the Public Staff's estimated usage of 1,920 gallons per EOP customer per month, consistent with the average for CWSNC's other seasonal mountain systems.
4. Customers at The Ridges at Mountain Harbor should be charged purchased sewer rates at the Public Staff recommended base facility charge, which is $18.42 per SFE. The base rates are shown below. The rate does not include the collection charge which will be the same as for all purchased sewer systems. Clay County charges a flat rate for treatment.

Residential customers	
< 1-inch meter	$18.42
Commercial customers:	

< 1-inch meter	$18.42
2-inch meter	$147.36

Carolina Trace, which is a purchased water system in the CWSNC uniform water rate division, should be charged the same base charge as approved in this case for that rate division.

Further, as a matter of rate design in this case, CWSNC proposed no rate changes for customers in the Company's CLMS service area. As for the CLMS service area, CWSNC stated that its 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 three general rate cases (Docket Nos. W-354, Subs 336, 344, and 356) and will continue the orderly process of moving the CLMS service area toward full inclusion in the Company's uniform water and sewer rates in future general rate cases.

No party to this case opposed the Company's CLMS rate design proposal.

Accordingly, the Commission finds good cause to approve all of the rate design proposals as set forth above for the reasons given by CWSNC in its Application, the testimony of witness DeStefano and Public Staff witness Casselberry, and the fact that no party to this case expressed any opposition thereto.

EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NOS. 49 – 51
(Water System Improvement Charge
and
Sewer System Improvement Charge)

In the Company's general rate case proceedings in Docket Nos. W-354, Subs 336, 344, and 356, the Commission found it to be in the public interest to authorize CWSNC to implement and utilize rate adjustment mechanisms ("WSIC/SSIC rate adjustment mechanisms") to recover the incremental depreciation expense and capital costs related to eligible investments in water and sewer infrastructure projects completed and placed in service between general rate case proceedings, as authorized by G.S. 62-133.12. Thus, CWSNC was authorized to implement WSIC and SSIC rate adjustment mechanisms for recovery of such costs. With the exception of CLMS customers, the remainder of CWSNC's post-merger customers are subject to the Application in this general rate case. Therefore, the Company's Commission-authorized WSIC/SSIC Mechanisms will, with the exception of CLMS customers, hereinafter apply to all other customers served by CWSNC.

The Ongoing Three-Year WSIC/SSIC Plan filed in this docket by CWSNC on May 30, 2018, is reasonable and meets the requirements of Commission Rules R7-39(m) pertaining to the WSIC and R10-26(m) pertaining to the SSIC.

The Commission's previously-authorized water and sewer system improvement charge rate adjustment mechanisms continue to be in effect, although, pursuant to Commission Rules R7-39(k) and R10-26(k), they have been reset at zero as of the effective date of this Order. CWSNC may, under the Rules and Regulations of the Commission, next apply for WSIC/SSIC rate surcharges on February 1, 2019, to become effective April 1, 2019. The WSIC/SSIC mechanisms are designed to recover, between rate case proceedings, the costs associated with investment in certain completed, eligible projects for system or water quality improvement. The WSIC/SSIC surcharges are subject to Commission approval and to audit and refund provisions. Any cumulative system improvement charges recovered pursuant to the WSIC/SSIC mechanisms may not exceed 5% of the total annual service revenues approved by the Commission in this general rate case proceeding.

Based on the service revenues approved herein, the maximum revenues that could be recovered through WSIC/SSIC charges as of the effective date of this Order are:

	Service Revenues	WSIC & SSIC Cap
CWSNC Uniform Water	$18,166,646 x 5% =	$908,332
CWSNC Uniform Sewer	$13,517,178 x 5% =	$675,874
BF/FH Water	$1,379,250 x 5% =	$68,963
BF/FH Sewer	$2,250,010 x 5% =	$112,501

Overall Conclusions

The Commission, having carefully reviewed the Joint Partial Settlement Agreement and Stipulation, and all of the evidence of record, finds and concludes that the Stipulation is the product of the give-and-take settlement negotiations between CWSNC and the Public Staff; that the Stipulation constitutes material evidence; that it is entitled to be given appropriate weight in this proceeding, along with all other evidence in the record; and that it is fully supported by competent evidence in the record. Accordingly, based on the foregoing findings of fact and the entire record in this proceeding, the Commission concludes that the settled issues reflected in the Joint Partial Settlement Agreement and Stipulation, which are incorporated herein by reference, are just and reasonable and should be approved.

IT IS, THEREFORE, ORDERED as follows:

1. That the provisions of the Joint Partial Settlement Agreement and Stipulation are incorporated by reference herein and are hereby approved in their entirety.

2. That all of the findings, conclusions, and decisions reflected in this Order are hereby affirmed and are so ordered for compliance purposes.

3. That the Schedules of Rates, attached hereto as Appendices A-1, A-2, A-3, and A-4, and the Schedules of Connection Fees for Uniform Water and Uniform Sewer, attached hereto as Appendices B-1 and B-2, are hereby approved and deemed to be filed with the Commission pursuant to G.S. 62-138.

4. That the Schedules of Rates, attached hereto as Appendices A-1, A-2, A-3, and A-4, are hereby authorized to become effective for service rendered on and after the issuance date of this Order.

5. That the Notices to Customers, attached hereto as Appendices C-1 and C-2 shall be mailed with sufficient postage or hand delivered to all affected customers in each relevant service area, respectively, in conjunction with the next regularly scheduled billing process.

6. That CWSNC shall file the attached Certificate of Service, properly signed and notarized, not later than 10 days after the Notices to Customers are mailed or hand delivered to customers.

7. That the Joint Partial Settlement Agreement and Stipulation and the parts of this Order pertaining to the contents of that Agreement shall not be cited or treated as precedent in future proceedings.

8. That all late-filed exhibits filed by CWSNC and the Public Staff are hereby admitted in evidence.

ISSUED BY ORDER OF THE COMMISSION.

This the ______ day of __________________, 2018.

NORTH CAROLINA UTILITIES COMMISSION

____

M. Lynn Jarvis, Chief Clerk

STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH

DOCKET NO. W-354, SUB 360

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	)	AFFIDAVIT OF ANTHONY GRAY

AFFIDAVIT OF ANTHONY GRAY, SENIOR FINANCIAL AND REGULATORY ANALYST
CAROLINA WATER SERVICE, INC. OF NORTH CAROLINA

Anthony Gray, Senior Financial and Regulatory Analyst for Carolina Water Service, Inc. of North Carolina ("CWSNC" or "Company"), first being duly sworn, deposes and says:

1. On April 27, 2018, CWSNC filed an Application for a general rate increase in this docket 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 Company's Corolla Light and Monteray Shores service area.

2. On October 19, 2018, CWSNC and the Public Staff filed a Joint Partial Settlement Agreement and Stipulation ("Stipulation") in this docket. Section III, Paragraph FF of the Stipulation provides as follows:

> The Stipulating Parties have agreed to a methodology for calculating regulatory commission expense, also known as rate case expense, and will update the number in Settlement Exhibit 1, Line 46, for actual and estimated costs once supporting documentation is provided by

the Company. The Stipulating Parties agree to amortize regulatory commission expense for a five-year period.

3. As required by the October 19, 2018 Stipulation, CWSNC has provided the Public Staff with all required documentation of rate case expense incurred to date in conjunction with this proceeding. The documentation provided by the Company includes only one significant estimate for the costs of preparing and mailing Notices to Customers[1] once the Commission issues its Final Order in this case and two lesser estimates for post-Final Order work by the Company's attorneys and its cost of capital expert witness totaling $5,985. Otherwise, all costs submitted by CWSNC for review by the Public Staff and for inclusion in the Company's cost of service in this proceeding are based on actual costs incurred to date.

4. CWSNC's rate case costs related solely to this case total $395,480. Those costs are broken down into the following categories and applicable amounts:

Capitalized Time	$103,794
Administrative	$48,643
Consulting Fees	$41,993
Attorney Fees[2]	$194,491
Travel Expenses	$6,559
TOTAL	$395,480

5. CWSNC requests that the Commission approve cost recovery of the Company's total rate case costs in the amount of $829,540 with those costs being

[1] CWSNC has included an estimate for this expense in the amount of $24,322, which is identical to the cost incurred by the Company to prepare and mail the first Notices to Customers at initiation of this case.

[2] The listed expense for attorney fees also includes costs related to the NCUC Rate Case Application filing fee, printing costs for the Company's Rate Case Application and direct and rebuttal testimony, travel expenses for attorneys to attend public hearings, and NCUC Outside Court Reporter costs.

amortized over five years. The total amount of $829,540 includes $434,060 of costs related to unamortized rate case expense from prior proceedings plus the amount of $395,480 related to this case. Thus, the annual amount for rate case costs which CWSNC requests that the Commission include in rates in this proceeding is $165,908.

FURTHER AFFIANT SAYETH NOT.

This the 27 day of November, 2018.

A. Gray

Anthony Gray, Senior Financial and Regulatory Analyst

NORTH CAROLINA
COUNTY OF MECKLENBURG

Sworn and subscribed before me this 27 day of November, 2018.

D. Stegall (SEAL)
Notary Public

My Commission Expires: 01/08/2019

DONNA STEGALL NOTARY PUBLIC UNION COUNTY, NC My Commission Expires January 8, 2019

Billing Analysis
CWSNC Uniform Service Areas

Clearwater Service Area

End of Period Revenue at Present Rates

Water
Residential

Meter Size	EOP Customers	EOP Bills	EOP Usage	Base Rate	Usage Rate	Total Revenue
Unmetered	99	1,188	-	$47.45		$56,371
5/8"	1,969	23,628	101,557,612	$24.44	$7.70	$1,359,462
Commercial						
5/8"	4	48	13,590	$24.44	$7.70	$1,278
					TOTAL	$1,417,110

End of Period Revenue at Proposed Rates

Water
Residential

Meter Size	EOP Customers	EOP Bills	EOP Usage	Base Rate	Usage Rate	Total Revenue
Unmetered	99	1,188	0	$56.38	$0.00	$66,981
5/8"	1969	23,628	101,557,612	$27.64	$7.81	$1,446,243
Commercial						
5/8"	4	48	13,590	$27.64	$7.81	$1,433
					TOTAL	$1,514,656

Forest Hills Service Area

End of Period Revenue at Present Rates

Water
Residential

Meter Size	EOP Customers	EOP Bills	EOP Usage	Base Rate	Usage Rate	Total Revenue
5/8"	119	1,428	5,333,743	$24.44	$7.70	$75,970
Commercial						
5/8"	1	12	101,120	$24.44	$7.70	$1,072
1"	2	24	101,910	$61.10	$7.70	$2,251
1.5"	3	36	863,540	$122.20	$7.70	$11,048
					TOTAL	$90,342

End of Period Revenue at Proposed Rates

Water
Residential

Meter Size	EOP Customers	EOP Bills	EOP Usage	Base Rate	Usage Rate	Total Revenue
5/8"	119	1,428	5,333,743	$27.64	$7.81	$81,126
Commercial						
5/8"	1	12	101,120	$27.64	$7.81	$1,121
1"	2	24	101,910	$69.10	$7.81	$2,454
1.5"	3	36	863,540	$138.20	$7.81	$11,719
					TOTAL	$96,422

Carolina Trace Service Area
End of Period Revenue at Present Rates

Water

	Meter Size	EOP Customers	EOP Bills	EOP Usage	Base Rate	Usage Rate	Total Revenue
Residential							
	5/8"	1,589	19,068	57,731,470	$24.44	$2.21	$593,608
	1"	2	24	155,083	$61.10	$2.21	$1,809
	2"	2	24	16,200	$195.52	$2.21	$4,728
Commercial							
	5/8"	25	300	1,319,932	$24.44	$2.21	$10,249
	1"	1	12	113,540	$61.10	$2.21	$984
	1.5"	1	12	481,600	$122.20	$2.21	$2,531
	2"	3	36	2,161,310	$195.52	$2.21	$11,815
						TOTAL	**$625,725**

End of Period Revenue at Proposed Rates

Water

	Meter Size	EOP Customers	EOP Bills	EOP Usage	Base Rate	Usage Rate	Total Revenue
Residential							
	5/8"	1,589	19,068	57,731,470	$27.64	$2.21	$654,626
	1"	2	24	155,083	$69.10	$2.21	$2,001
	2"	2	24	16,200	$221.12	$2.21	$5,343
Commercial							
	5/8"	25	300	1,319,932	$27.64	$2.21	$11,209
	1"	1	12	113,540	$69.10	$2.21	$1,080
	1.5"	1	12	481,600	$138.20	$2.21	$2,723
	2"	3	36	2,161,310	$221.12	$2.21	$12,737
						TOTAL	**$689,719**

Carolina Trace Service Area

End of Period Revenue at Present Rates

Sewer

	Meter Size	EOP Customers	EOP Bills	EOP Usage	Base Rate	Usage Rate	Total Revenue
Residential							
	5/8"	1,559	18,708	56,398,900	$45.97	$3.11	$1,035,407
	1"	2	24	155,083	$45.97	$3.11	$1,586
	2"	2	24	16,200	$45.97	$3.11	$1,154
Commercial							
	5/8"	15	180	990,062	$45.97	$3.11	$11,354
	1"	1	12	113,540	$114.93	$3.11	$1,732
	1.5"	1	12	481,600	$229.85	$3.11	$4,256
	2"	1	12	109,900	$367.76	$3.11	$4,755
						TOTAL	**$1,060,243**

End of Period Revenue at Proposed Rates

Sewer

	Meter Size	EOP Customers	EOP Bills	EOP Usage	Base Rate	Usage Rate	Total Revenue
Residential							
	5/8"	1,559	18,708	56,398,900	$49.15	$3.60	$1,122,534
	1"	2	24	155,083	$49.15	$3.60	$1,738
	2"	2	24	16,200	$49.15	$3.60	$1,238
Commercial							
	5/8"	15	180	990,062	$49.15	$3.60	$12,411
	1"	1	12	113,540	$122.88	$3.60	$1,883
	1.5"	1	12	481,600	$245.75	$3.60	$4,683
	2"	1	12	109,900	$393.20	$3.60	$5,114
						TOTAL	**$1,149,601**

Connestee Falls Service Area

End of Period Revenue at Present Rates

Water

	Meter Size	EOP Customers	EOP Bills	EOP Usage	Base Rate	Usage Rate	Total Revenue
Residential							
	5/8"	1,383	16,596	35,001,080	$24.44	$7.70	$675,115
Commercial							
	5/8"	16	192	275,000	$24.44	$7.70	$6,810
	2"	3	36	1,757,300	$195.52	$7.70	$20,570
Availability		487	5,844		$4.80		$28,051
						TOTAL	**$730,546**

End of Period Revenue at Proposed Rates

Water

	Meter Size	EOP Customers	EOP Bills	EOP Usage	Base Rate	Usage Rate	Total Revenue
Residential							
	5/8"	1,383	16,596	35,001,080	$27.64	$7.81	$732,072
Commercial							
	5/8"	16	192	275,000	$27.64	$7.81	$7,455
	2"	3	36	1,757,300	$221.12	$7.81	$21,685
Availability		487	5,844		$4.80		$28,051
						TOTAL	**$789,263**

Connestee Falls Service Area

End of Period Revenue at Present Rates

Sewer

	Meter Size	EOP Customers	EOP Bills	EOP Usage	Base Rate	Usage Rate	Total Revenue
Residential							
	Flat	5	60		$56.57		$3,394
	5/8"	998	11,976	24,917,060	$45.97	$3.11	$628,029
Commercial							
	5/8"	7	84	130,000	$45.97	$3.11	$4,266
	2"	1	12	1,569,000	$367.76	$3.11	$9,293
Availability		260	3,120		$4.70		$14,664
						TOTAL	**$659,645**

End of Period Revenue at Proposed Rates

Sewer

	Meter Size	EOP Customers	EOP Bills	EOP Usage	Base Rate	Usage Rate	Total Revenue
Residential							
	Flat	5	60		$60.60		$3,636
	5/8"	998	11,976	24,917,060	$49.15	$3.60	$678,322
Commercial							
	5/8"	7	84	130,000	$49.15	$3.60	$4,597
	2"	1	12	1,569,000	$393.20	$3.60	$10,367
Availability		260	3,120		$4.70		$14,664
						TOTAL	**$711,585**

Fairfield Sapphire Valley Service Area

End of Period Revenue at Present Rates

Water

Residential

Meter Size	EOP Customers	EOP Bills	EOP Usage	Base Rate	Usage Rate	Total Revenue
5/8"	1,550	18,600	35,143,932	$24.44	$7.70	$725,192
3/4"	4	48	38,547	$24.44	$7.70	$1,470
1"	5	60	218,340	$61.10	$7.70	$5,347
1.5"	32	384	5,117,390	$122.20	$7.70	$86,329
2"	17	204	2,198,829	$195.52	$7.70	$56,817
Commercial						
Meter Size						
5/8"	41	492	1,956,725	$24.44	$7.70	$27,091
1"	3	36	791,279	$61.10	$7.70	$8,292
1.5"	5	60	1,328,136	$122.20	$7.70	$17,559
2"	12	144	2,489,505	$195.52	$7.70	$47,324
3"	1	12	1,321,926	$366.60	$7.70	$14,578
Availability	812	9,744		$9.10		$88,670
					TOTAL	**$1,078,670**

End of Period Revenue at Proposed Rates

Water

Residential

Meter Size	EOP Customers	EOP Bills	EOP Usage	Base Rate	Usage Rate	Total Revenue
5/8"	1,550	18,600	35,143,932	$27.64	$7.81	$788,578
3/4"	4	48	38,547	$27.64	$7.81	$1,628
1"	5	60	218,340	$69.10	$7.81	$5,851
1.5"	32	384	5,117,390	$138.20	$7.81	$93,036
2"	17	204	2,198,829	$221.12	$7.81	$62,281
Commercial						
Meter Size						
5/8"	41	492	1,956,725	$27.64	$7.81	$28,881
1"	3	36	791,279	$69.10	$7.81	$8,667
1.5"	5	60	1,328,136	$138.20	$7.81	$18,665
2"	12	144	2,489,505	$221.12	$7.81	$51,284
3"	1	12	1,321,926	$414.60	$7.81	$15,299
Availability	812	9,744		$9.10		$88,670
					TOTAL	**$1,162,841**

Fairfield Sapphire Valley Service Area

End of Period Revenue at Present Rates

Sewer

Meter Size	EOP Customers	EOP Bills	EOP Usage	Base Rate	Usage Rate	Total Revenue
Residential						
5/8"	645	7,740		$56.57		$437,852
1"	2	24		$56.57		$1,358
1.5"	32	1,536		$56.57		$86,892
2"	17	816		$56.57		$46,161
Commercial						
Meter Size						
5/8"	19	228	1,692,720	$45.97	$3.11	$15,746
1"	3	36	791,279	$114.93	$3.11	$6,598
1.5"	2	24	877,016	$229.85	$3.11	$8,244
2"	6	72	2,401,171	$367.76	$3.11	$33,946
3"	1	12	1,321,926	$689.55	$3.11	$12,386
Availability	91	1,092		$8.30		$9,064
					TOTAL	**$658,246**

End of Period Revenue at Proposed Rates

Sewer

Meter Size	EOP Customers	EOP Bills	EOP Usage	Base Rate	Usage Rate	Total Revenue
Residential						
5/8"	645	7,740	13,580,338	$49.15	$3.60	$429,310
1"	2	24	87,117	$49.15	$3.60	$1,493
1.5"	0	0		$49.15	$3.60	$0
2"	0	0		$49.15	$3.60	$0
Commercial						
Meter Size						
5/8"	23	276	1,692,720	$49.15	$3.60	$19,659
1"	3	36	791,279	$122.88	$3.60	$7,272
1.5"	34	408	5,994,406	$245.75	$3.60	$121,846
2"	23	276	4,600,000	$393.20	$3.60	$125,083
3"	1	12	1,321,926	$737.25	$3.60	$13,606
Availability	91	1,092		$8.30		$9,064
					TOTAL	**$727,333**

Nags Head Service Area

End of Period Revenue at Present Rates

Sewer

Residential Meter Size	EOP Customers	EOP Bills	EOP Usage	Base Rate	Usage Rate	Total Revenue
Unmetered	646	7,752		$56.57		$438,531
Commercial						
5/8"	10	120	1,006,240	$45.97	$3.11	$8,646
3/4"	1	12	505,000	$45.97	$3.11	$2,122
1"	7	84	3,926,330	$114.93	$3.11	$21,865
1.5"	4	48	1,325,720	$229.85	$3.11	$15,156
2"	7	84	4,687,400	$367.76	$3.11	$45,470
6"	2	24	3,922,510	$2,298.50	$3.11	$67,363
					TOTAL	$599,152

End of Period Revenue at Proposed Rates

Sewer

Residential Meter Size	EOP Customers	EOP Bills	EOP Usage	Base Rate	Usage Rate	Total Revenue
Unmetered	646	7,752		$60.60		$469,756
Commercial						
5/8"	10	120	1,006,240	$49.15	$3.60	$9,520
3/4"	1	12	505,000	$49.15	$3.60	$2,408
1"	7	84	3,926,330	$122.88	$3.60	$24,456
1.5"	4	48	1,325,720	$245.75	$3.60	$16,569
2"	7	84	4,687,400	$393.20	$3.60	$49,903
6"	2	24	3,922,510	$2,457.50	$3.60	$73,101
					TOTAL	$645,713

Carolina Water Purchased Water (Carolina Forest)

End of Period Revenue at Present Rates

Water

Residential Meter Size	EOP Customers	EOP Bills	EOP Usage	Base Rate	Usage Rate	Total Revenue
5/8"	200	2,400	6,961,889	$24.44	$3.19	$80,864
1"	1	12	17,330	$61.10	$3.19	$788
Commercial						
Meter Size						
5/8"	4	48	25,238	$24.44	$3.19	$1,254
1"	1	12	84,850	$61.10	$3.19	$1,004
1.5"	1	12	57,940	$122.20	$3.19	$1,651
Availability	671	1,342		$24.65		$33,080
					TOTAL	$118,642

End of Period Revenue at Proposed Rates

Water

Residential Meter Size	EOP Customers	EOP Bills	EOP Usage	Base Rate	Usage Rate	Total Revenue
5/8"	200	2,400	6,961,889	$27.64	$3.19	$88,544
1"	1	12	17,330	$69.10	$3.19	$884
Commercial						
Meter Size						
5/8"	4	48	25,238	$27.64	$3.19	$1,407
1"	1	12	84,850	$69.10	$3.19	$1,100
1.5"	1	12	57,940	$138.20	$3.19	$1,843
Availability	671	1,342		$24.65		$33,080
					TOTAL	$126,860

Carolina Water Purchased Water (High Vista)

End of Period Revenue at Present Rates

	Meter Size	EOP Customers	EOP Bills	EOP Usage	Base Rate	Usage Rate	Total Revenue
Water							
Residential							
	5/8"	257	3,084	10,466,600	$24.44	$3.25	$109,389
	1"	1	12	58,500	$61.10	$3.25	$923
Commercial	**Meter Size**						
	5/8"	1	12	20,940	$24.44	$3.25	$361
	2"	2	24	727,600	$195.52	$3.25	$7,057
						TOTAL	**$117,731**

End of Period Revenue at Proposed Rates

	Meter Size	EOP Customers	EOP Bills	EOP Usage	Base Rate	Usage Rate	Total Revenue
Water							
Residential							
	5/8"	257	3,084	10,466,600	$27.64	$3.25	$119,258
	1"	1	12	58,500	$69.10	$3.25	$1,019
Commercial	**Meter Size**						
	5/8"	1	12	20,940	$27.64	$3.25	$400
	2"	2	24	727,600	$221.12	$3.25	$7,672
						TOTAL	**$128,349**

Carolina Water Purchased Water (Riverpointe)

End of Period Revenue at Present Rates

	Meter Size	EOP Customers	EOP Bills	EOP Usage	Base Rate	Usage Rate	Total Revenue
Water							
Residential							
	5/8"	195	2,340	14,385,655	$24.44	$6.30	$147,819
	1"	2	24	554	$61.10	$6.30	$1,470
Commercial	**Meter Size**						
	5/8"	5	60	649,240	$24.44	$6.30	$5,557
						TOTAL	**$154,846**

End of Period Revenue at Proposed Rates

	Meter Size	EOP Customers	EOP Bills	EOP Usage	Base Rate	Usage Rate	Total Revenue
Water							
Residential							
	5/8"	195	2,340	14,385,655	$27.64	$6.30	$155,307
	1"	2	24	554	$69.10	$6.30	$1,662
Commercial	**Meter Size**						
	5/8"	5	60	649,240	$27.64	$6.30	$5,749
						TOTAL	**$162,718**

Carolina Water Purchased Water (Woodrun)

End of Period Revenue at Present Rates

Water

	Meter Size	EOP Customers	EOP Bills	EOP Usage	Base Rate	Usage Rate	Total Revenue
Residential							
	5/8"	457	5,484	16,592,047	$24.44	$3.19	$186,958
Commercial							
	Meter Size						
	5/8"	4	48	50,360	$24.44	$3.19	$1,334
	1"	1	12	282,424	$61.10	$3.19	$1,634
Availability		682	1,364		$24.65		$33,623
						TOTAL	**$223,548**

End of Period Revenue at Proposed Rates

Water

	Meter Size	EOP Customers	EOP Bills	EOP Usage	Base Rate	Usage Rate	Total Revenue
Residential							
	5/8"	457	5,484	16,592,047	$27.64	$3.19	$204,506
Commercial							
	Meter Size						
	5/8"	4	48	50,360	$27.64	$3.19	$1,487
	1"	1	12	282,424	$69.10	$3.19	$1,730
Availability		682	1,364		$24.65		$33,623
						TOTAL	**$241,346**

Carolina Water Purchased Water (Yorktown)

End of Period Revenue at Present Rates

Water

	Meter Size	EOP Customers	EOP Bills	EOP Usage	Base Rate	Usage Rate	Total Revenue
Residential							
	5/8"	105	1,260	3,820,510	$24.44	$5.01	$49,935
						TOTAL	**$49,935**

End of Period Revenue at Proposed Rates

Water

	Meter Size	EOP Customers	EOP Bills	EOP Usage	Base Rate	Usage Rate	Total Revenue
Residential							
	5/8"	105	1,260	3,820,510	$27.64	$5.01	$53,967
						TOTAL	**$53,967**

Carolina Water Purchased Water (Zemosa Acres)
End of Period Revenue at Present Rates

Water

Residential

Meter Size	EOP Customers	EOP Bills	EOP Usage	Base Rate	Usage Rate	Total Revenue
5/8"	1	12	69,960	$24.44	$5.27	$662
3/4"	240	2,880	11,902,225	$24.44	$5.27	$133,112
1"	2	24	92,124	$61.10	$5.27	$1,952
Commercial						
Meter Size						
1"	1	12	83,327	$61.10	$5.27	$1,172
					TOTAL	$136,898

End of Period Revenue at Proposed Rates

Water

Residential

Meter Size	EOP Customers	EOP Bills	EOP Usage	Base Rate	Usage Rate	Total Revenue
5/8"	1	12	69,960	$27.64	$5.27	$700
3/4"	240	2,880	11,902,225	$27.64	$5.27	$142,328
1"	2	24	92,124	$69.10	$5.27	$2,144
Commercial						
Meter Size						
1"	1	12	83,327	$69.10	$5.27	$1,268
					TOTAL	$146,441

Carolina Water Purchased Water (Whispering Pines)
End of Period Revenue at Present Rates

Water

Residential

Meter Size	EOP Customers	EOP Bills	EOP Usage	Base Rate	Usage Rate	Total Revenue
5/8"	1,560	18,720	94,454,327	$24.44	$2.23	$668,150
1"	16	192	1,350,099	$61.10	$2.23	$14,742
Commercial						
Meter Size						
5/8"	28	336	1,203,630	$24.44	$2.23	$10,896
1"	6	72	3,031,860	$61.10	$2.23	$11,160
1.5"	5	60	840,430	$122.20	$2.23	$9,206
2"	1	12	567,800	$195.52	$2.23	$3,612
4"	1	12	300	$611.00	$2.23	$7,333
					TOTAL	$725,099

End of Period Revenue at Proposed Rates

Water

Residential

Meter Size	EOP Customers	EOP Bills	EOP Usage	Base Rate	Usage Rate	Total Revenue
5/8"	1,560	18,720	94,454,327	$27.64	$2.23	$728,054
1"	16	192	1,350,099	$69.10	$2.23	$16,278
Commercial						
Meter Size						
5/8"	28	336	1,203,630	$27.64	$2.23	$11,971
1"	6	72	3,031,860	$69.10	$2.23	$11,736
1.5"	5	60	840,430	$138.20	$2.23	$10,166
2"	1	12	567,800	$221.12	$2.23	$3,920
4"	1	12	300	$691.00	$2.23	$8,293
					TOTAL	$790,418

Carolina Water Purchased Water (White Oak Plantation)

End of Period Revenue at Present Rates

Water

Residential

Meter Size	EOP Customers	EOP Bills	EOP Usage	Base Rate	Usage Rate	Total Revenue
5/8"	571	6,852	27,303,660	$24.44	$2.28	$229,715

Commercial

Meter Size	EOP Customers	EOP Bills	EOP Usage	Base Rate	Usage Rate	Total Revenue
1.5"	1	12	221,000	$122.20	$2.28	$1,970
					TOTAL	$231,686

End of Period Revenue at Proposed Rates

Water

Residential

Meter Size	EOP Customers	EOP Bills	EOP Usage	Base Rate	Usage Rate	Total Revenue
5/8"	571	6,852	27,303,660	$27.64	$2.40	$254,918

Commercial

Meter Size	EOP Customers	EOP Bills	EOP Usage	Base Rate	Usage Rate	Total Revenue
1.5"	1	12	221,000	$138.20	$2.40	$2,189
					TOTAL	$257,107

Carolina Water Purchased Sewer (White Oak Plantation)

End of Period Revenue at Present Rates

Sewer

Residential

Meter Size	EOP Customers	EOP Bills	EOP Usage	Base Rate	Usage Rate	Total Revenue
5/8"	478	5,736	22,486,753	$36.75	$4.82	$319,184
					TOTAL	$319,184

End of Period Revenue at Proposed Rates

Sewer

Residential

Meter Size	EOP Customers	EOP Bills	EOP Usage	Base Rate	Usage Rate	Total Revenue
5/8"	478	5,736	22,486,753	$33.63	$5.06	$306,685
					TOTAL	$306,685

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

DeStefano Suppl. Exhibit I
Schedule 1

Carolina Water Purchased Sewer (College Park)

End of Period Revenue at Present Rates

Sewer

Residential

Meter Size	EOP Customers	EOP Bills	EOP Usage	Base Rate	Usage Rate	Total Revenue
Flat	1	12		$56.57		$679
5/8"	51	612	2,258,079	$36.75	$5.70	$35,362
					TOTAL	**$36,041**

End of Period Revenue at Proposed Rates

Sewer

Residential

Meter Size	EOP Customers	EOP Bills	EOP Usage	Base Rate	Usage Rate	Total Revenue
Flat	1	12		$60.60		$727
5/8"	51	612	2,258,079	$33.63	$5.70	$33,453
					TOTAL	**$34,180**

Carolina Water Purchased Sewer (Kings Grant)

End of Period Revenue at Present Rates

Sewer

Residential

Meter Size	EOP Customers	EOP Bills	EOP Usage	Base Rate	Usage Rate	Total Revenue
5/8"	180	2,160	8,142,949	$36.75	$3.80	$110,323
1"	1	12	223,570	$36.75	$3.80	$1,291
					TOTAL	**$111,614**

End of Period Revenue at Proposed Rates

Sewer

Residential

Meter Size	EOP Customers	EOP Bills	EOP Usage	Base Rate	Usage Rate	Total Revenue
5/8"	180	2,160	8,142,949	$33.63	$3.80	$103,584
1"	1	12	223,570	$33.63	$3.80	$1,253
					TOTAL	**$104,837**

Carolina Water Purchased Sewer (Mount Carmel)

End of Period Revenue at Present Rates

Sewer

Residential

Meter Size	EOP Customers	EOP Bills	EOP Usage	Base Rate	Usage Rate	Total Revenue
5/8"	381	4,572	16,196,592	$43.52	$5.88	$294,209
					TOTAL	**$294,209**

End of Period Revenue at Proposed Rates

Sewer

Residential

Meter Size	EOP Customers	EOP Bills	EOP Usage	Base Rate	Usage Rate	Total Revenue
5/8"	381	4,572	16,196,592	$40.40	$5.88	$279,945
					TOTAL	**$279,945**

Carolina Water Purchased Sewer (Fairfield Mountain)

End of Period Revenue at Present Rates

Sewer

Meter Size	EOP Customers	EOP Bills	EOP Usage	Base Rate	Usage Rate	Total Revenue
Residential						
5/8"	387	4,644	9,022,480	$106.25		$493,425
3/4"	12	144	224,740	$106.25		$15,300
1"	12	144	1,451,340	$106.25		$15,300
Commercial						
WW Only	2	24	-	$106.25	$13.93	$2,550
Small	7	84	457,920	$78.50	$13.93	$12,973
Medium	11	132	2,219,380	$139.50	$13.93	$49,330
Large	3	36	370,720	$219.50	$13.93	$13,066
					TOTAL	**$601,944**

End of Period Revenue at Proposed Rates

Sewer

Meter Size	EOP Customers	EOP Bills	EOP Usage	Base Rate	Usage Rate	Total Revenue
Residential						
5/8"	387	4,644	9,022,480	$103.13		$478,936
3/4"	12	144	224,740	$103.13		$14,851
1"	12	144	1,451,340	$103.13		$14,851
Commercial						
WW Only	2	24	0	$103.13	$13.93	$2,475
Small	7	84	457,920	$78.50	$13.93	$12,973
Medium	11	132	2,219,380	$139.50	$13.93	$49,330
Large	3	36	370,720	$219.50	$13.93	$13,066
					TOTAL	**$586,481**

Fairfield Mountain Service Area

End of Period Revenue at Present Rates

Water

Meter Size	EOP Customers	EOP Bills	EOP Usage	Base Rate	Usage Rate	Total Revenue
Residential						
5/8"	1,010	12,120	26,280,820	$24.44	$7.70	$498,575
3/4"	17	204	388,740	$24.44	$7.70	$7,979
1"	12	144	1,451,340	$61.10	$7.70	$19,974
Commercial						
Meter Size						
5/8"	43	516	1,614,290	$24.44	$7.70	$25,041
1"	4	48	922,180	$61.10	$7.70	$10,034
1.5"	4	48	610,520	$122.20	$7.70	$10,567
2"	4	48	1,083,890	$195.52	$7.70	$17,731
					TOTAL	**$589,900**

End of Period Revenue at Proposed Rates

Water

Meter Size	EOP Customers	EOP Bills	EOP Usage	Base Rate	Usage Rate	Total Revenue
Residential						
5/8"	1,010	12,120	26,280,820	$27.64	$7.81	$540,250
3/4"	17	204	388,740	$27.64	$7.81	$8,675
1"	12	144	1,451,340	$69.10	$7.81	$21,285
Commercial						
Meter Size						
5/8"	43	516	1,614,290	$27.64	$7.81	$26,870
1"	4	48	922,180	$69.10	$7.81	$10,519
1.5"	4	48	610,520	$138.20	$7.81	$11,402
2"	4	48	1,083,890	$221.12	$7.81	$19,079
					TOTAL	**$638,080**

CWS Uniform Service Area

End of Period Revenue at Present Rates

Water						
Residential						
Meter Size	**EOP Customers**	**EOP Bills**	**EOP Usage**	**Base Rate**	**Usage Rate**	**Total Revenue**
Flat	416	4,992		$47.45		$236,870
5/8"	14,455	173,460	684,336,915	$24.44	$7.70	$9,508,757
3/4"	21	252	1,207,300	$24.44	$7.70	$15,455
1"	24	288	1,208,263	$61.10	$7.70	$26,900
1.5"	2	24	228,550	$122.20	$7.70	$4,693
2"	2	24	96,100	$195.52	$7.70	$5,432
Commercial						
Meter Size						
5/8"	152	1,824	8,624,468	$24.44	$7.70	$110,987
1"	37	444	7,343,471	$61.10	$7.70	$83,673
1.5"	15	180	4,819,286	$122.20	$7.70	$59,105
2"	58	696	18,430,263	$195.52	$7.70	$277,995
3"	6	72	9,273,966	$366.60	$7.70	$97,805
4"	1	12	904,300	$611.00	$7.70	$14,295
6"	2	24	3,976,660	$1,222.00	$7.70	$59,948
Availability	58	696		$12.35		$8,596
					TOTAL	**$10,510,511**

End of Period Revenue at Proposed Rates (Legacy Uniform Area)

Water						
Residential						
Meter Size	**EOP Customers**	**EOP Bills**	**EOP Usage**	**Base Rate**	**Usage Rate**	**Total Revenue**
Flat	16	192		$56.38		$10,825
5/8"	14,455	173,460	684,336,915	$27.64	$7.81	$10,139,106
3/4"	21	252	1,207,300	$27.64	$7.81	$16,394
1"	24	288	1,208,263	$69.10	$7.81	$29,337
1.5"	2	24	228,550	$138.20	$7.81	$5,102
2"	2	24	96,100	$221.12	$7.81	$6,057
Commercial						
Meter Size						
5/8"	152	1,824	8,624,468	$27.64	$7.81	$117,772
1"	37	444	7,343,471	$69.10	$7.81	$88,033
1.5"	15	180	4,819,286	$138.20	$7.81	$62,515
2"	58	696	18,430,263	$221.12	$7.81	$297,840
3"	6	72	9,273,966	$414.60	$7.81	$102,281
4"	1	12	904,300	$691.00	$7.81	$15,355
6"	2	24	3,976,660	$1,382.00	$7.81	$64,226
Availability	58	696		$12.35		$8,596
					TOTAL	**$10,963,438**

End of Period Revenue at Proposed Rates (Linville Ridge, The Ridges, Sapphire Valley)

Water						
Residential						
Meter Size	**EOP Customers**	**EOP Bills**	**EOP Usage**	**Base Rate**	**Usage Rate**	**Total Revenue**
5/8"	59	708	1,359,360	$23.31	$8.20	$27,650
3/4"	318	3,816	7,326,720	$23.31	$8.20	$149,030
1"	19	228	437,760	$58.28	$8.20	$16,876
2"	4	48	92,160	$186.48	$8.20	$9,707
					TOTAL	**$203,263**

CWS Uniform Service Area

End of Period Revenue at Present Rates

Sewer

Residential

Meter Size	EOP Customers	EOP Bills	EOP Usage	Base Rate	Usage Rate	Total Revenue
Flat	1,469	17,628		$56.57		$997,216
5/8"	6,989	83,868	285,539,150	$45.97	$3.11	$4,743,439
1"	17	204	577,057	$45.97	$3.11	$11,173
2"	1	12	58,000	$45.97	$3.11	$732

Commercial

Meter Size	EOP Customers	EOP Bills	EOP Usage	Base Rate	Usage Rate	Total Revenue
Flat	54	648		$56.57		$36,657
5/8"	385	4,620	22,549,341	$45.97	$3.11	$282,510
1"	4	48	368,303	$114.93	$3.11	$6,662
1.5"	5	60	2,845,620	$229.85	$3.11	$22,641
2"	39	468	13,041,044	$367.76	$3.11	$212,669
3"	4	48	8,455,966	$689.55	$3.11	$59,396
4"	1	12	904,300	$1,149.25	$3.11	$16,603
Regalwood	0	0		$0.00		$0
White Oak	1,061	12,732		$56.57		$720,249
WO School	1	12		$1,770.10		$21,241
Daycare	1	12		$219.90		$2,639
Pantry		0		$108.00		$0
					TOTAL	$7,133,828

End of Period Revenue at Proposed Rates (Legacy Uniform Area)

Sewer

Residential

Meter Size	EOP Customers	EOP Bills	EOP Usage	Base Rate	Usage Rate	Total Revenue
Flat	1,469	17,628		$60.60		$1,068,222
5/8"	6,989	83,868	285,539,150	$49.15	$3.60	$5,150,053
1"	17	204	577,057	$49.15	$3.60	$12,104
2"	1	12	58,000	$49.15	$3.60	$799

Commercial

Meter Size	EOP Customers	EOP Bills	EOP Usage	Base Rate	Usage Rate	Total Revenue
Flat	19	228		$60.60		$13,816
5/8"	386	4,632	22,084,821	$49.15	$3.60	$307,168
1"	4	48	368,303	$122.88	$3.60	$7,224
1.5"	5	60	2,845,620	$245.75	$3.60	$24,989
2"	38	456	12,833,444	$393.20	$3.60	$225,500
3"	4	48	8,455,966	$737.25	$3.60	$65,829
4"	1	12	904,300	$1,228.75	$3.60	$18,000
Regalwood	0	0		$60.60		$0
White Oak	1,061	12,732		$60.60		$771,534
WO School	1	12		$1,894.01		$22,728
Daycare	1	12		$235.29		$2,824
Pantry	0	0		$135.00		$0
					TOTAL	$7,690,790

End of Period Revenue at Proposed Rates (The Ridges)

Sewer

Residential

Meter Size	EOP Customers	EOP Bills	EOP Usage	Base Rate	Usage Rate	Total Revenue
5/8"	35	420		$52.05		$21,861
Commercial						
5/8"	1	12		$52.05		$625
2"	1	12		$180.99		$2,172
					TOTAL	$24,657

Elk River Service Area

End of Period Revenue at Present Rates

Water

Meter Size	EOP Customers	EOP Bills	EOP Usage	Base Rate	Usage Rate	Total Revenue
Residential						
5/8"	2	24	45,223	$19.52	$4.29	$662
3/4"	267	3,204	7,494,774	$19.52	$4.29	$94,695
1"	13	156	806,144	$48.79	$4.29	$11,070
Commercial						
3/4"	34	408	602,388	$19.52	$4.29	$10,548
1"	1	12	472,771	$48.79	$4.29	$2,614
2"	4	48	643,629	$156.12	$4.29	$10,255
					TOTAL	**$129,844**

End of Period Revenue at Proposed Rates

Water

Meter Size	EOP Customers	EOP Bills	EOP Usage	Base Rate	Usage Rate	Total Revenue
Residential						
5/8"	2	24	45,223	$27.64	$7.81	$1,017
3/4"	267	3,204	7,494,774	$27.64	$7.81	$147,093
1"	13	156	806,144	$69.10	$7.81	$17,076
Commercial						
3/4"	34	408	602,388	$27.64	$7.81	$15,982
1"	1	12	472,771	$69.10	$7.81	$4,522
2"	4	48	643,629	$221.12	$7.81	$15,641
					TOTAL	**$201,329**

Elk River Service Area

End of Period Revenue at Present Rates

Sewer

Meter Size	EOP Customers	EOP Bills	Annualized EOP Usage	Base Rate	Usage Rate	Total Revenue
Residential						
3/4"	116	1,392	1,865,148	$23.38	$3.00	$38,140
1"	4	48	110,492	$58.45	$3.00	$3,137
Commercial						
5/8"	0	0	0	$23.38	$3.00	$0
3/4"	2	24	201,116	$23.38	$3.00	$1,164
1"	1	12	476,855	$58.45	$3.00	$2,132
2"	2	24	401,259	$187.05	$3.00	$5,693
					TOTAL	**$50,267**

End of Period Revenue at Proposed Rates

Sewer

Meter Size	EOP Customers	EOP Bills	EOP Usage	Base Rate	Usage Rate	Total Revenue
Residential						
3/4"	116	1,392	1,865,148	$49.15	$3.60	$75,131
1"	4	48	110,492	$122.88	$3.60	$6,296
Commercial						
5/8"	0	0	0	$49.15	$3.60	$0
3/4"	2	24	201,116	$49.15	$3.60	$1,904
1"	1	12	476,855	$122.88	$3.60	$3,191
2"	2	24	401,259	$245.75	$3.60	$7,343
					TOTAL	**$93,864**

Corolla Light/Monterey Shores Service Area (Rates Unchanged)

End of Period Revenue at Present Rates

Sewer

Residential

Meter Size	EOP Customers	EOP Bills	EOP Usage	Base Rate	Usage Rate	Total Revenue
5/8"	848	10,176	49,424,585	$52.06	$6.62	$856,953
1"	109	1,308	13,282,650	$130.15	$6.62	$258,167
1.5"	3	36	1,000,000	$260.31	$6.62	$15,991
2"	2	24	1,578,400	$416.49	$6.62	$20,445
3"	1	12	72,000	$780.92	$6.62	$9,848
					TOTAL	**$1,161,404**

End of Period Revenue at Proposed Rates

Sewer

Residential

Meter Size	EOP Customers	EOP Bills	EOP Usage	Base Rate	Usage Rate	Total Revenue
5/8"	848	10,176	49,424,585	$52.06	$6.62	$856,953
1"	109	1,308	13,282,650	$130.15	$6.62	$258,167
1.5"	3	36	1,000,000	$260.31	$6.62	$15,991
2"	2	24	1,578,400	$416.49	$6.62	$20,445
3"	1	12	72,000	$780.92	$6.62	$9,848
					TOTAL	**$1,161,404**

CWSNC Uniform Rates - Total

End of Period Revenue at Proposed Rates

	Total Revenue
Water	**18,166,215**
Sewer	**13,517,077**

Note: Uniform Sewer collection rate is 68.42% of residential base charge. This is consistent with Casselberry Late Filed Exhibit 9.

Bradfield Farms/ Fairfield Harbor/Treasure Cove - Billing Analysis

Bradfield Farms Service Area

End of Period Revenue at Present Rates

Water

Residential

Meter Size	EOP Customers	EOP Bills	EOP Usage	Base Rate	Usage Rate	Total Revenue
5/8"	998	11,976	59,064,169	$11.44	$3.36	$335,461
3/4"	96	1,152	6,040,320	$11.44	$3.36	$33,474
1"	5	60	515,027	$28.60	$3.36	$3,446
					TOTAL	$372,382

End of Period Revenue at Proposed Rates

Water

Residential

Meter Size	EOP Customers					
5/8"	998	11,976	59,064,169	$14.74	$4.62	$449,403
3/4"	96	1,152	6,040,320	$14.74	$4.62	$44,887
1"	5	60	515,027	$36.85	$4.62	$4,590
					TOTAL	$498,880

Bradfield Farms Service Area

End of Period Revenue at Present Rates

Sewer

Residential

Meter Size	EOP Customers	EOP Bills	EOP Usage	Base Rate	Usage Rate	Total Revenue
5/8"	993	11,916	59,198,625	$41.40		$493,322
3/4"	96	1,152	6,040,320	$41.40		$47,693
1"	3	36	1,908,468	$41.40		$1,490
Bulk Sewer	158	1,896		$40.40		$76,598
Apartments	379	4,548		$40.40		$183,739
					TOTAL	$802,843

End of Period Revenue at Proposed Rates

Sewer

Residential

Meter Size	EOP Customers	EOP Bills	EOP Usage	Base Rate	Usage Rate	Total Revenue
5/8"	993	11,916		$52.63		$627,161
3/4"	96	1,152		$52.63		$60,632
1"	3	36		$52.63		$1,895
Bulk Sewer	158	1,896		$52.63		$99,790
Apartments	379	4,548		$52.63		$239,370
					TOTAL	$1,028,847

Fairfield Harbor Service Area

End of Period Revenue at Present Rates

Water

Meter Size	EOP Customers	EOP Bills	EOP Usage	Base Rate	Usage Rate	Total Revenue
Residential						
5/8"	1,836	22,032	76,520,506	$11.44	$3.36	$509,155
3/4"	2	24	56,890	$11.44	$3.36	$466
1"	2	24	87,020	$28.60	$3.36	$979
Commercial						
5/8"	22	264	1,487,405	$11.44	$3.36	$8,018
1"	1	12	39,270	$28.60	$3.36	$475
1.5"	2	24	513,000	$57.20	$3.36	$3,096
2"	3	36	260,890	$91.52	$3.36	$4,171
Availability	1,064	12,762		$3.28		$41,859
					TOTAL	**$568,220**

End of Period Revenue at Proposed Rates

Water

Meter Size	EOP Customers	EOP Bills	EOP Usage	Base Rate	Usage Rate	Total Revenue
Residential						
5/8"	1,836	22,032	76,520,506	$14.74	$4.62	$678,276
3/4"	2	24	56,890	$14.74	$4.62	$617
1"	2	24	87,020	$36.85	$4.62	$1,286
Commercial						
5/8"	22	264	1,487,405	$14.74	$4.62	$10,763
1"	1	12	39,270	$36.85	$4.62	$624
1.5"	2	24	513,000	$73.70	$4.62	$4,139
2"	3	36	260,890	$117.92	$4.62	$5,450
Availability	1,064	12,762		$3.28		$41,859
					TOTAL	**$743,015**

Fairfield Harbor Service Area

End of Period Revenue at Present Rates

Sewer

Meter Size	EOP Customers	EOP Bills	EOP Usage	Base Rate	Usage Rate	Total Revenue
Residential						
5/8"	1,821	21,852	75,977,876	$41.40		$904,673
Commercial						
5/8"	13	156	1,176,070	$11.12	$6.20	$9,026
3/4"	2	24	56,890	$11.12	$6.20	$620
1"	3	36	1,919,578	$33.36	$6.20	$13,102
1.5"	2	24	513,000	$55.60	$6.20	$4,515
2"	1	12	86,190	$88.96	$6.20	$1,602
Availability	1,050	12,594		$2.65		$33,374
					TOTAL	**$966,912**

End of Period Revenue at Proposed Rates

Sewer

Meter Size	EOP Customers	EOP Bills	EOP Usage	Base Rate	Usage Rate	Total Revenue
Residential						
5/8"	1,821	21,852	75,977,876	$52.63	0	$1,150,111
Commercial						
5/8"	13	156	1,176,070	$26.50	$6.58	$11,873
3/4"	2	24	56,890	$26.50	$6.58	$1,010
1"	3	36	1,919,578	$66.25	$6.58	$15,016
1.5"	2	24	513,000	$132.50	$6.58	$6,556
2"	1	12	86,190	$212.00	$6.58	$3,111
Availability	1,050	12,594		$2.65		$33,374
					TOTAL	**$1,221,050**

Treasure Cove Service Area

End of Period Revenue at Present Rates

Water

Residential

Meter Size	EOP Customers	EOP Bills	EOP Usage	Base Rate	Usage Rate	Total Revenue
5/8"	299	3,588	17,698,657	$11.44	$3.36	$100,514
3/4"	1	12	3,950	$11.44	$3.36	$151
1"	1	12	50,250	$28.60	$3.36	$512
2"	1	12	76,700	$91.52	$3.36	$1,356
					TOTAL	$102,533

End of Period Revenue at Proposed Rates

Water

Residential

Meter Size	EOP Customers	EOP Bills	EOP Usage	Base Rate	Usage Rate	Total Revenue
5/8"	299	3,588	17,698,657	$14.74	$4.62	$134,655
3/4"	1	12	3,950	$14.74	$4.62	$195
1"	1	12	50,250	$36.85	$4.62	$674
2"	1	12	76,700	$117.92	$4.62	$1,769
					TOTAL	$137,294

Bradfield Farms/Fairfield Harbour/Treasure Cove Rates - Total

End of Period Revenue at Proposed Rates

	Total Revenue
Water	1,379,189
Sewer	2,249,897

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

DeStefano Suppl. Exhibit I
Schedule 2

Average Usage & Bill Calculation

Line No.

Average Usage - Residential Customer

CWSNC Uniform	**EOP Bills**	**Usage**	**Average**
Water	282,636	1,017,927,831	3,601.55
Sewer	140,028	424,961,963	3,034.84

BradfieldFarms/Fairfield Harbour/Treasure Cove	**EOP Bills**	**Usage**	**Average**
Water	37,596	153,283,332	4,077.12
Sewer	33,768	135,176,501	4,003.09

Average Bill at Present Rates - Residential Customer

CWSNC Uniform	**Average Usage**	**Base Charge**	**Usage Charge per 1000 Gal.**	**Total**
Water	3,601.55	24.44	7.70	52.17
Sewer	3,034.84	45.97	3.11	55.41

Bradfield Farms/Fairfield Harbour/Treasure Cove	**Average Usage**	**Base Charge**	**Usage Charge per 1000 Gal.**	**Total**
Water	4,077.12	11.44	3.36	25.14
Sewer	4,003.09	41.40	-	41.40

Average Bill at Proposed Rates - Residential Customer

CWSNC Uniform	**Average Usage**	**Base Charge**	**Usage Charge per 1000 Gal.**	**Total**
Water	3,601.55	27.64	7.81	55.77
Sewer	3,034.84	49.15	3.60	60.08

Bradfield Farms/Fairfield Harbour/Treasure Cove	**Average Usage**	**Base Charge**	**Usage Charge per 1000 Gal.**	**Total**
Water	4,077.12	14.74	4.62	33.58
Sewer	4,003.09	52.63	-	52.63

CAROLINA WATER SERVICE, INC. OF NC
Docket No. W-354, Sub 360
CALCULATION OF GROSS REVENUE
IMPACT OF COMPANY ADJUSTMENTS
For The Test Year Ended December 31, 2017

DeStefano Suppl. Exhibit II
Schedule 1

Line No.	Item	CWSNC Water (a)	CWSNC Sewer (b)	BF/FH/TC Water (c)	BF/FH/TC Sewer (d)
1	Increase/(decrease) in total revenue per Company application	$2,485,612	$1,022,180	$511,341	$386,403
2	Difference in calculation of revenue requirement based on Company amounts	(1)	(2)	(2)	0
3	Adjust capital structure to 49.09% debt and 50.91% equity	(107,329)	(79,687)	(5,105)	(12,930)
4	Adjust debt cost rate to 5.68%	(94,538)	(70,194)	(4,495)	(11,389)
5	Adjust return on equity to 11.20%	(119,945)	(89,060)	(5,704)	(14,449)
6	Adjustment to uncollectibles	10,049	3,366	3,143	4,694
7	Adjustment to forfeited discounts	(4,379)	(2,002)	(402)	(604)
8	Adjustment to miscellaneous revenues	(20,080)	19,170	(3,530)	3,530
9	Update revenues to 6/30/2018	(27,964)	45,470	0	(11,651)
10	Adjustment to include plant held for future use	(9,785)	(52,714)	0	0
11	Adjustment to remove pro forma estimates	(329,273)	(179,662)	0	(18,571)
12	Adjustment to cost center rate base	(572)	(216)	0	0
13	Adjustment to include cost centers GL additions	23,260	11,685	2,570	2,160
14	Adjustment to update rate base	2,641	(15,710)	33,949	6,835
15	Adjustment to include actual GL additions	312,497	212,945	5,484	35,243
16	Adjustments to add in capitalized legal fees	0	801	0	0
17	Adjustment to remove AA Riverbend	53	0	0	0
18	Adjustment to cash working capital	7,132	8,744	(280)	(712)
19	Adjustment to ADIT	140,688	(11,430)	31,063	(19,350)
20	Adjustment to customer deposits	(1,907)	(1,135)	(300)	(312)
21	Adjustment to gain on sale	9,223	4,699	0	0
22	Adjustment to excess book value	(1)	0	0	0
23	Adjustment to average tax accruals	(13,988)	(8,441)	(951)	(1,023)
24	Adjustment for excess deferred taxes	(29,544)	(44,703)	2,794	(11,947)
25	Adjustment to deferred charges	(96,219)	(74,349)	(10,824)	(2,045)
26	Adjustment to maintenance salaries	(83,856)	(42,168)	(8,563)	(8,913)
27	Adjustment to purchased power	(1,913)	0	0	0

CAROLINA WATER SERVICE, INC. OF NC
Docket No. W-354, Sub 360
CALCULATION OF GROSS REVENUE
IMPACT OF COMPANY ADJUSTMENTS
For The Test Year Ended December 31, 2017

DeStefano Suppl. Exhibit II
Schedule 1

Line No.	Item	CWSNC Water (a)	CWSNC Sewer (b)	BF/FH/TC Water (c)	BF/FH/TC Sewer (d)
28	Adjustment to purchased water/sewer	(125,068)	(1,988)	31,359	0
29	Adjustment to maintenance and repair	(366,470)	6,770	(503)	(19,671)
30	Adjustment to maintenance testing	59,523	12,397	3,680	(1,968)
31	Adjustment to meter reading	(96)	0	0	0
32	Adjustment to chemicals	(131,848)	136,058	3,428	(3,427)
33	Adjustment to transportation	(1,464)	(411)	(83)	(87)
34	Adjustment to capitalized time	19,025	12,002	1,847	1,942
35	Adjustment to outside services - other	(18,560)	(8,499)	(84)	(88)
36	Adjustment to general salaries and wages	(28,460)	(13,608)	(2,763)	(2,877)
37	Adjustment to office supplies and other office exp.	(2,646)	(617)	(124)	(130)
38	Adjustment to regulatory commission expense	(148,186)	(87,867)	(16,422)	(18,008)
39	Adjustment to pension and benefits	(12,483)	(7,431)	(1,509)	(1,571)
40	Adjustment to rent	(3,993)	(1,843)	(374)	(390)
41	Adjustment to insurance	0	0	0	0
42	Adjustment to office utility	(1,396)	(355)	(72)	(75)
43	Adjustment to miscellaneous	(4,102)	(2,293)	(385)	(399)
44	Adjustment to depreciation expense	(13,823)	87,203	(222,703)	217,394
45	Adjustment to amortization expense - CIAC	(31,692)	41,545	(16,546)	(1,391)
46	Adjustment to amortization expense - PAA	(1,709)	2,851	3,330	(19,661)
47	Adjustment to franchise tax	(2)	0	0	0
48	Adjustment to property tax	524	(162)	(32)	(34)
49	Adjustment to payroll tax	(5,883)	(2,652)	(539)	(561)
50	Rounding	0	0	(3)	0
51	Revenue impact of Company adjustments	(1,254,560)	(193,492)	(179,650)	87,564
52	Updated Increase/(decrease) per Company	$1,231,052	$828,688	$331,690	$473,967