

PLACE: Dobbs Building, Raleigh, North Carolina
DATE: Monday, November 28, 2022
DOCKET NO.: W-354, Sub 400
TIME: 2:05 p.m. - 5:31 p.m.
BEFORE: Commissioner Daniel G. Clodfelter, Presiding
Chair Charlotte A. Mitchell
Commissioner ToNola D. Brown-Bland
Commissioner Kimberly W. Duffley
Commissioner Jeffrey A. Hughes
Commissioner Floyd B. McKissick, Jr.
Commissioner Karen M. Kemerait.

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 Its Service Areas in North Carolina
and for Approval of a Water and Sewer Investment Plan

Volume 6

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P R O C E E D I N G S

COMMISSIONER CLODFELTER: All right.

Good afternoon.

Madam Court Reporter, please open the record.

And everyone please take your seats and come to order.

I will call for hearing now Docket Number W-354, Sub 400, which is titled In the Matter of: the Application By Carolina Water Service, Inc., of North Carolina for Authority to Adjust and Increase Rates and Charges for Water and Sewer Utility Service in All Service Areas of North Carolina and for Approval of a Three-Year Water and Sewer Investment Plan.

I'm Commissioner Dan Clodfelter, and I will be presiding commissioner for this hearing. Joining me at the dais this afternoon are Commissioners Kim Duffley, Jeff Hughes, Floyd McKissick, and Karen Kemerait.

In accordance with the State Government Ethics Act, at this point I remind all members of the Commission that it is our duty to avoid conflicts of interest and inquire at this time

1 whether any Commissioner has any known conflict of
2 interest with respect to this docket.

3 (No response.)

4 COMMISSIONER CLODFELTER: Madam Court
5 Reporter, please let the record reflect that
6 neither I nor any of the other Commissioners have
7 identified any such conflict.

8 On July 1, 2022, Carolina Water Service
9 of North Carolina, which I might refer to sometimes
10 as the "Company," filed an application with the
11 Commission seeking authority to adjust and increase
12 its rates for providing water and sewer utility
13 service in all of its North Carolina service areas
14 and for approval to establish and implement a water
15 and sewer investment plan pursuant to
16 North Carolina General Statute §62-133.1B and
17 Commission Rule R1-17A.

18 The Company proposes new rates for a
19 base year and for the three years included in its
20 water and sewer investment plan. The Company also
21 filed the testimony and exhibits of several
22 witnesses along with the application.

23 Pursuant to paragraph 1 of the
24 Commission's November 15th, 2022, order providing

1 additional hearing procedures, which I will refer
2 to as the Additional Procedures Order, the parties
3 were directed to review the Commission's docket
4 maintained by the clerk, and on or before
5 November 22, 2022, file and serve on all parties
6 notice of any omissions, errors, or corrections
7 needed with respect to any item identified in the
8 docket and to verify the accuracy and completeness
9 of any designations of confidential --
10 confidentiality as to any confidential documents
11 filed with the clerk.

12 As of the commencement of this hearing
13 today, no such notices were filed by any party.
14 The Commission will therefore take notice of the
15 official docket maintained by the clerk, and I will
16 dispense with any further recitation of the
17 procedural history of the docket or the various
18 orders and filings made herein.

19 On September -- September 2, 2022, the
20 Commission issued an order scheduling this hearing,
21 establish intervention and testimony due dates and
22 discovery deadlines, and requiring notice.

23 At this point, I will now call upon
24 counsel for the parties to announce their

1 appearances for the record beginning with the
2 applicant.

3 MS. SANFORD: Thank you, Commissioner
4 Clodfelter. I am Jo Anne Sanford with the Sanford
5 Law Office in Raleigh representing Carolina Water
6 Service, Inc., of North Carolina.

7 With me at counsel table is Mark Alson
8 of the Ice Miller firm of Indianapolis. His
9 colleague -- our colleague Kay Pashos was to be
10 with us today, but unfortunately some virus had
11 another idea, so she is not going to be here today.

12 With us also at counsel table is
13 Don Denton, the state president of Carolina Water.
14 And close by us are two of the witnesses,
15 Dante DeStefano, who's the director of regulatory
16 affairs for Corix; and Matt Schellinger, who's the
17 regional director of financial planning and
18 analysis for the East Region. Thank you.

19 COMMISSIONER CLODFELTER: You are
20 welcome.

21 Public Staff?

22 MS. HOLT: Good afternoon. I'm
23 Gina Holt with the Public Staff here on behalf of
24 the using and consuming public. And appearing with

1 me today are Public Staff attorneys William Freeman
2 and William Grantmyre.

3 COMMISSIONER CLODFELTER: Great. I'm
4 glad to have you here.

5 I note for the record that, pursuant to
6 paragraphs 4B and paragraph 6 of the Additional
7 Procedures Order, the parties were directed to file
8 in advance of today's hearing any motions in limine
9 or any objections to the authenticity or
10 genuineness of any proposed exhibits. As of the
11 commencement of this hearing, let the record show
12 that no such motions have been filed.

13 At this time, let me ask counsel if
14 there are any preliminary motions that we need to
15 take up before we take evidence.

16 MS. SANFORD: No, sir.

17 COMMISSIONER CLODFELTER: Public Staff?

18 MS. HOLT: No, sir.

19 COMMISSIONER CLODFELTER: Great.

20 I will make this request of counsel.
21 Commissioner Brown-Bland and Commissioner Mitchell
22 are unable to be with us today. Both have asked if
23 the parties would have any objection to their
24 reading in to the transcript and their viewing the

1 videoconference recording.

2 If you have any such objection, please
3 let me know and I'll hear you now.

4 MS. SANFORD: No objections.

5 COMMISSIONER CLODFELTER: Great.

6 All right. Let me ask if either of the
7 parties wishes to be -- make a brief opening
8 statement before we begin.

9 MS. SANFORD: No, sir.

10 MS. HOLT: No.

11 COMMISSIONER CLODFELTER: Okay. If not,
12 we will open with the case for the applicant.

13 Before I recognize counsel, however, let
14 me address certain evidentiary matters as provided
15 in the Additional Procedures Order.

16 First, the Commission will take notice
17 of and receive into evidence the transcripts of the
18 public witness hearings held in Raleigh on
19 October 3rd, 2022; in Jacksonville on
20 October 25, 2022; in Charlotte on October 26, 2022;
21 in Boone on October 20, 2022, and that hearing was
22 continued virtually via Webex on October 24, 2022;
23 and the virtual public hearing held via Webex
24 October 19, 2022.

1 The Commission will also receive into
2 evidence the Company's reports on customer comments
3 at the public witness hearings filed on
4 October 24 and November 8, November 10, and
5 November 15, 2022, as reflected in the docket.

6 And, finally, the Commission will
7 receive into the record and take notice of the
8 verified responses of the Public Staff for the
9 Company's reports on customer comments, also as
10 reflected in the docket.

11 Next, the Commission will receive into
12 evidence the Joint Partial Stipulation and
13 Settlement Agreement between the Company and the
14 Public Staff filed on November 22, 2022.

15 (Joint Partial Settlement Agreement and
16 Stipulation was admitted into evidence.)

17 COMMISSIONER CLODFELTER: Next, pursuant
18 to the Additional Procedures Order and paragraph 7A
19 of the joint partial stipulation settlement, in the
20 absence of any objection filed by any party as
21 required by the Additional Procedures Order and
22 without need for any further oath or affirmation,
23 the Commission will accept into evidence the
24 following items as part of the applicant's case:

1 First, the application, including
2 form W-1, parts 1, 2, and 3, and all supporting
3 appendices, exhibits and schedules, filed on
4 July 1, 2022, as amended and supplemented
5 thereafter.

6 (CWSNC Application and items listed
7 above were admitted into evidence.)

8 COMMISSIONER CLODFELTER: Second, the
9 prefiled direct testimony of Donald Denton,
10 including one exhibit; the prefiled rebuttal
11 testimony of Donald Denton; and the prefiled
12 settlement testimony of Donald Denton.

13 Third, the prefiled direct testimony of
14 Dylan D'Ascendis, including one exhibit and
15 Appendix A; and the prefiled rebuttal testimony of
16 Dylan D'Ascendis, including one rebuttal exhibit.

17 The Commission will also receive into
18 the record, pursuant to Commission Rule R1-24D, the
19 summary witness statement of Dylan D'Ascendis.

20 Fourth, the prefiled direct testimony of
21 Philip J. Drennan, including one exhibit, as
22 adopted by Matthew Schellinger, pursuant to notice
23 filed with the Commission on November 10, 2022.

24 Fifth, the prefiled direct testimony of

1 Dana Hill, as adopted by Tony Konsul, pursuant to
2 notice filed with Commission on November 10, 2022.

3 The prefiled direct testimony of
4 Matthew P. Schellinger, II will also be accepted
5 into the record along with the prefiled rebuttal
6 testimony of Matthew Schellinger, including five
7 rebuttal exhibits and the prefiled settlement
8 testimony of Matthew Schellinger.

9 That was Item Number 6, Madam Court
10 Reporter.

11 Item Number 7 will be the prefiled
12 rebuttal testimony of Tony Konsul, including one
13 exhibit.

14 And, Number 8, the prefiled rebuttal
15 testimony of Dante DeStefano.

16 All such prefiled testimony will be
17 admitted into evidence along with any corrections
18 made, filed and served pursuant to paragraph 2 of
19 the Additional Procedures Order.

20 Testimony of witnesses who do not
21 provide further testimony by way of cross
22 examination or questions from Commissioners at
23 today's hearing will be copied into the transcript
24 in the sequence that I have just recited.

1 Prefiled testimony of witnesses who are
2 called in this hearing for cross examination or for
3 questions from the Commissioners will be copied
4 into the transcript immediately after they have
5 taken their oaths.

6 At this point, Ms. Sanford, if you think
7 I've got all the ones into the record I need to get
8 into the record, we'll turn the case over to you.

9 MS. SANFORD: I have one question --

10 COMMISSIONER CLODFELTER: Yes, ma'am.

11 MS. SANFORD: -- about the exhibits, and
12 that was about Mr. D'Ascendis's exhibits. I think
13 you recited that he had one.

14 COMMISSIONER CLODFELTER: He had one
15 direct exhibit and an exhibit Appendix A.

16 MS. SANFORD: Appendix A. He's giving
17 me a thumbs-up. If there's a change to that, we'll
18 let him correct it on the stand so that I think
19 that --

20 COMMISSIONER CLODFELTER: If there's a
21 change, that will get it cleaned up --

22 MS. SANFORD: Okay.

23 COMMISSIONER CLODFELTER: -- in the
24 final clean-up at the very end.

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MS. SANFORD: Okay. Thank you very much.

COMMISSIONER CLODFELTER: Okay? Anything further? If not, the case is with you.

MS. SANFORD: Thank you.

Mr. Alson.

(Exhibit PJD was identified and admitted into evidence.)

(Whereupon, the prefiled direct testimony of Philip J. Drennan and prefiled direct testimony of Dana Hill were copied into the record as if given orally from the stand.)

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1 **I. INTRODUCTION**

2 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

3 A. My name is Philip J. Drennan and my business address is 4944 Parkway
4 Plaza Boulevard, Suite 375, Charlotte, North Carolina 28217.

5 **Q. WHERE ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

6 A. I am Regional Director of Financial Planning and Analysis for Carolina
7 Water Service, Inc. of North Carolina ("CWSNC" or "Company").

8 **Q. WHAT IS YOUR EDUCATIONAL AND PROFESSIONAL**
9 **BACKGROUND?**

10 A. I have been employed by Corix Group of Companies since June 2016. I
11 graduated from University of Illinois with a Bachelor of Science in Finance,
12 and I also hold the Chartered Financial Analyst ("CFA") designation. Prior
13 to joining CWSNC and Corix Group of Companies, I was employed by
14 various financial services firms performing equity research, financial
15 modeling, valuation, and capital management duties.

16 **Q. WHAT ARE YOUR DUTIES WITH CWSNC?**

17 A. My primary responsibilities include forecasting, budgeting, and financial
18 analysis for the Company. I am also responsible for the oversight of data-
19 gathering and preparation of rate cases, filing applications for rate cases,
20 and providing data request responses for support of rate case filings.

1 **Q. WHAT RELIEF IS THE COMPANY REQUESTING IN THIS**
2 **PROCEEDING?**

3 A. The Company is requesting approval under N.C. Gen. Stat. (“N.C.G.S.”) §
4 62-133.1B and Rule R1-17A of a three-year Water and Sewer Investment
5 Plan (“WSIP”), for the following years:

- 6 • 12 months ending March 31, 2024 (“WSIP Year 1”);
- 7 • 12 months ending March 31, 2025 (“WSIP Year 2”); and
- 8 • 12 months ending March 31, 2026 (“WSIP Year 3”).

9 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS**
10 **PROCEEDING?**

11 A. The purpose of my testimony is to present and support the Company’s
12 revenue requirements for the 12 months ended March 31, 2022 (the “Test
13 Year”) as well as revenue requirements for Plan Years 1, 2, and 3 of the
14 Company’s proposed WSIP.

15 **Q. PLEASE IDENTIFY THE HISTORIC TEST YEAR PERIOD (“TEST**
16 **YEAR”)**

17 A. The historic Test Year is the 12-month period ending March 31, 2022.

18 **Q. IS CWSNC ADJUSTING THE HISTORIC TEST YEAR PERIOD?**

19 A. Yes. CWSNC is normalizing the Test Year period for certain disallowed and
20 non-recurring items. CWSNC is also annualizing certain Test Year items for
21 known and measurable changes. The purpose of these normalizing
22 adjustments is to present an accurate Test Year, representative of

1 CWSNC's regulated operations, in order to forecast Water and Sewer
2 Investment Plan ("WSIP") rate years 1 through 3 consistent with N.C.G.S.
3 § 62-133.1B and Rule R1-17A and. An example of a normalizing adjustment
4 is removing charitable donations from the Test Year to ensure
5 unrecoverable expenses are not projected into the WSIP periods. A
6 complete list of normalizing adjustments is presented on the NCUC Form
7 W1, Item #10 ("W1-10"), which includes references to supporting filing
8 exhibits and work paper schedules. I have included Exhibit PJD-1 with this
9 testimony to summarize the W1-10 adjustments. More discussion about
10 normalizing adjustments will be covered later in this testimony.

11 **Q. PLEASE IDENTIFY THE RATE YEARS IN THE WSIP PERIOD.**

12 A. The three WSIP Rate Years will be referred to as WSIP Year 1, WSIP Year
13 2, and WSIP Year 3. The WSIP Rate Years, consistent with Rules R1-
14 17A(b)(3) and R1-17A(c)(1) are as follows: (1) WSIP 1 will begin April 1,
15 2023, ending 12 months later on March 31, 2024; (2) WSIP 2 will be the 12-
16 month period ending March 31, 2025; and (3) WSIP 3 will be the 12-month
17 period ending March 31, 2026. As a starting point, WSIP Year 1 will include
18 a complete income statement and rate base roll forward, which will include
19 projects anticipated to be placed into service between the end of the Test
20 Year period and the beginning of the first WSIP Rate Year.

1 Q. PLEASE DESCRIBE HOW CWSNC IS PROJECTING REASONABLE
2 AND PRUDENT EXPENSES, CONSISTENT WITH RULE R1-17A,
3 DURING THE WSIP RATE YEARS.

4 A. As previously described, a Test Year normalization process is utilized to
5 create a Base Year that represents the reasonable, prudent, and
6 recoverable operations of CWSNC. CWSNC then makes three adjustments
7 to the Base Year to calculate expense forecasts used to create the WSIP
8 revenue requirements. The three Base Year adjustments are the following:

- 9 (1) Inflation factor adjustments
- 10 (2) Growth factor adjustments
- 11 (3) Driver based forecast adjustments

12 A brief description of each adjustment will be included for this response. A
13 more detailed description of each adjustment will be presented later in this
14 testimony.

15 **Inflation Factor Adjustments:** These adjustments are made
16 consistent with Rule R1-17A(c)(4) and are necessary to forecast
17 reasonable and prudent expense levels throughout the WSIP Rate Year
18 periods. CWSNC is applying inflation factors to Base Year expenses to
19 estimate projected expenses within the WSIP period. An example of a
20 common inflation factor is the Consumer Price Index ("CPI") which is
21 calculated and reported monthly by the Bureau of Labor Statistics. The

1 inflation factors that CWSNC is applying to the Base Year will be discussed
2 in greater depth later in this testimony.

3 **Growth Factor Adjustments**: This adjustment is a separate subset
4 of the inflation factor adjustment. This adjustment is necessary to account
5 for customer growth within the WSIP period. To the extent that customer
6 growth is projected during the WSIP period, adjustments must be made to
7 both revenues and expenses to accurately forecast reasonable and prudent
8 revenue requirement levels. For example, as customers are added to the
9 system, direct increases in billing costs will be incurred for the additional
10 monthly billing units. This growth factor is separate from the inflation factors
11 which account for the general increase in the price of goods and services.
12 Both growth and inflation factors must be compounded together to
13 accurately forecast the WSIP period revenue requirements.

14 **Driver Base Forecast Adjustments**: These adjustments fall outside
15 the inflation/growth factor adjustments and are necessary to accurately
16 calculate the projected WSIP periods. For example, if the amortization
17 period of a non-recurring deferred maintenance item is scheduled to expire
18 during the WSIP period, an adjustment must be made to remove the
19 amortization expense from future WSIP years to ensure customers are not
20 overcharged. These adjustments are “driven” by unique factors other than
21 inflation and will be discussed in greater detail later in this testimony.

1 **Q. PLEASE DESCRIBE THE INFLATION FACTORS USED BY CWSNC TO**
2 **PROJECT PRICE INCREASES DURING THE WISP PERIOD.**

3 A. CWSNC is using CPI data supplied by the Bureau of Labor Statistics to
4 project inflation for future WSIP years. CWSNC chose CPI as an inflation
5 indicator because it is an accurate, widely followed indicator with readily
6 available forecast data through the entire WSIP period. CPI readings
7 through the first five months of 2022 have average year-over-year increases
8 of 8.16%. CWSNC's operating and maintenance expenses have increased
9 over 10% for the same period. CPI is a fair and reasonable, albeit
10 conservative, proxy for the general level of price increases experienced by
11 CWSNC.

12 To project the CPI inflation rate for future WSIP years, CWSNC
13 obtained CPI forecast data for 2023 through 2026. These forecast data are
14 provided by the Blue Chip Financial Forecast. CWSNC then used actual
15 monthly CPI readings from 2022 to bridge the current year to future year
16 forecasts. Inflation is currently at a 40-year high (8.6%) according to the
17 Bureau of Labor Statistics, but is forecast to decrease below 3% by 2024.
18 Annual CPI forecasts are listed as follows:

19 6.84% annual average in 2022

20 3.20% annual average in 2023

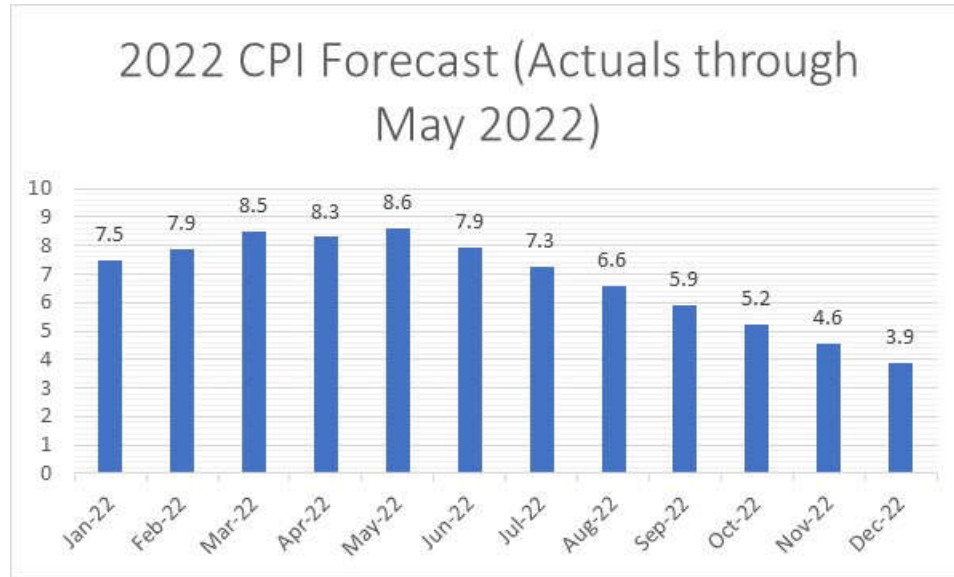
21 2.40% annual average in 2024

22 2.40% annual average in 2025

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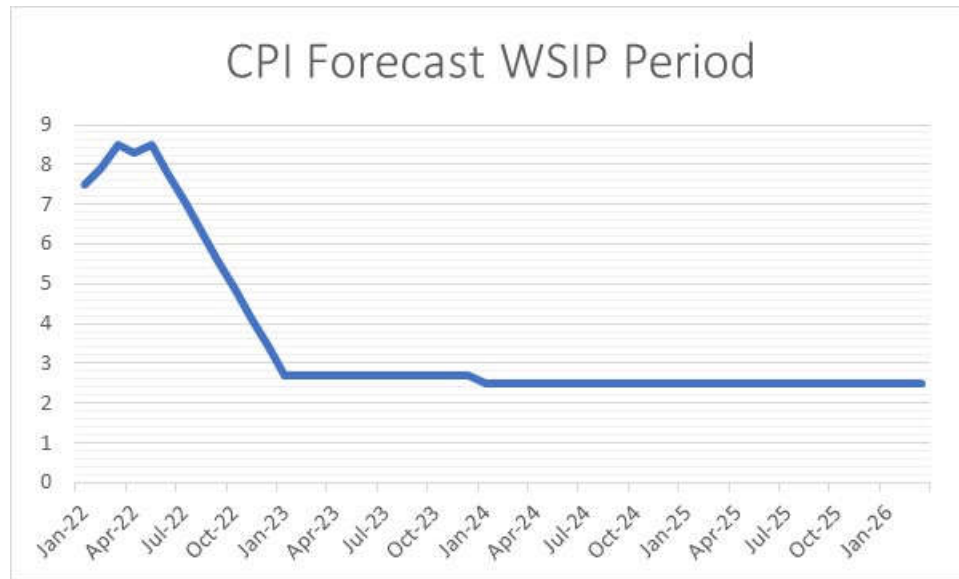
2.40% annual average in 2026

Combining actual current CPI readings with forecasted data yields a 6.84% forecasted CPI increase in 2022. A chart of the 2022 forecast is provided below:



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A chart of actual and forecasted CPI through the entire WSIP period is also provided below:



1
2 To accurately forecast inflation through the entire WSIP period,
3 CWSNC created a forecast for the “bridge period” after the Test Year ending
4 March 31, 2022 through the beginning of WSIP year 1 on April 1, 2023. This
5 forecast uses actual CPI readings from April and May 2022 and will be
6 updated as new CPI data become available.

7 Bridge period CPI (4/1/22 – 3/31/23): 5.56%

8 WSIP Year 1 CPI (4/1/23 – 3/31/24): 3.00%

9 WSIP Year 2 CPI (4/1/24 – 3/31/25): 2.40%

10 WSIP Year 3 CPI (4/1/25 – 3/31/26): 2.40%

11 The bridge period average CPI will be compounded with WSIP year
12 1 average CPI to account for the two years between the end of the Test
13 Year and the end of WSIP year 1. The compounded rate through WSIP year
14 1 is calculated as follows: $(1 + 5.56\%) * (1 + 3.00\%) - 1 = 8.82\%$

1 **Q. PLEASE DESCRIBE THE GROWTH FACTORS CWSNC IS APPLYING TO**
 2 **BOTH REVENUE AND OPERATING EXPENSES.**

3 A. To accurately project revenue requirements in the WSIP periods, growth
 4 rates must be applied to both revenue and expenses. As CWSNC grows,
 5 new customers are charged existing tariff rates, increasing overall revenue.
 6 This revenue growth benefits existing customers during the WSIP periods
 7 by offsetting the necessary future revenue increases required for the
 8 Company to earn its allowed return. However, the same growth
 9 assumptions must also be applied to most of the Company's expense
 10 accounts. For example, billing units will increase as additional customers
 11 are added to the system and mailed monthly invoices. It is important to note
 12 that growth percentages must be compounded with inflation percentages to
 13 accurately forecast expense levels in the WSIP periods. A table of rate
 14 factors used for uniform water and sewer forecasts is provided below for
 15 illustration.

Inflation Assumptions	Water	Water	Water	Sewer	Sewer	Sewer
	WSIP Year 1	WSIP Year 2	WSIP Year 3	WSIP Year 1	WSIP Year 2	WSIP Year 3
Growth Inflation	0.46%	0.92%	0.92%	0.09%	0.18%	0.18%
Expense Inflation	8.82%	2.40%	2.40%	8.82%	2.40%	2.40%
Compounded Expense Inflation	9.32%	3.34%	3.34%	8.92%	2.59%	2.59%

16 A complete list of inflation factor assumptions applied to each account is
 17 shown on Schedule 29 of the W1-10. CWSNC witness Matthew P.
 18 Schellinger II discusses revenue growth forecasts in greater depth in his
 19 testimony.

1 **Q. PLEASE DESCRIBE OTHER DRIVER BASED ADJUSTMENTS CWSNC**
2 **IS MAKING TO OPERATING EXPENSE PROJECTIONS DURING THE**
3 **WSIP PERIODS.**

4 A. Driver base forecast adjustments are driven by factors other than inflation
5 and customer growth. CWSNC adjusted the deferred maintenance account
6 to normalize the end of the amortization periods for the Nags Head
7 Wastewater Treatment Plant ("WWTP") and Connestee Falls WWTP
8 deferrals approved in Sub 364. This adjustment removes \$198,669 of
9 deferred amortization expense in WSIP Year 3. The adjustment is
10 presented on Exhibit PJD-1 submitted with this testimony and in the W1-10
11 as Adjustment 13. CWSNC also forecasted property and real estate taxes
12 which are driven by increased property values due to capital investments.
13 Additionally, CWSNC controls employee compensation levels and can
14 determine adjustments independent of market inflation factors. CWSNC
15 has historically increased annual salaries by 3% and will continue to budget
16 and forecast that percentage despite annual inflation readings over 8.0%
17 and projected customer growth above 0.6% in the uniform rate group.
18 CWSNC is not forecasting the need for additional headcount during the
19 WSIP periods for existing operational needs.

20 **Q. WHAT ARE THE DRIVERS OF THE COMPANY'S NEED FOR RATE**
21 **RELIEF OVER THE PERIOD OF THE PROPOSED WSIP?**

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1 A. CWSNC's maintenance and general operating expenses have increased by
2 \$2.1 million since the last rate case, Docket No. W-354, Sub 384. This
3 represents a percentage increase of 8.4%. After adjustments for known and
4 measurable increases, CWSNC's maintenance and general operating
5 expenses are expected to increase over \$2.3 million, or 9.3%, since the last
6 approved docket. Inflation is a contributing factor as the Bureau of Labor
7 Statistics recently reported a May CPI reading of 8.6%. CWSNC expects
8 maintenance and general operating expenses to increase an additional
9 \$3.1 million through the end of the WSIP periods, necessitating the need to
10 file for rate relief under Rule R1-17A to recover prudent and reasonable
11 expenses incurred since the Docket No. W-354, Sub 384 rate case.
12 Additionally, CWSNC is scheduled to place over \$95 million of capital
13 investments into service through the end of the WSIP periods. These
14 projects are crucial to ensure that safe, reliable service will continue to be
15 provided to CWSNC's customers. A complete Capital Investment Plan
16 ("CIP") is included with this filing as Appendix 11 to explain the reason for
17 and scope of each of the proposed capital investment projects. The
18 Company's capital plan will meet the requirements for Rule R1-17A(c)(2).

19 **II. TEST YEAR REVENUE REQUIREMENTS**

20 **Q. PLEASE DESCRIBE THE COMPANY'S TEST YEAR AND PRO FORMA**
21 **ADJUSTMENT PROCESS IN THIS PROCEEDING.**

1 A. CWSNC is utilizing a Test Year in this proceeding of the 12 months ended
2 March 31, 2022. The Company has incorporated various pro forma
3 adjustments based on known and measurable changes in operating costs
4 beyond the Test Year. These adjustments are detailed and supported within
5 the NCUC Form W-1 Report provided with the Company's application.

6 **A. Pro Forma Revenues**

7 **Q. DID THE COMPANY MAKE ADJUSTMENTS TO TEST YEAR ACTUAL**
8 **REVENUES IN COMPUTING PRO FORMA PRESENT RATE**
9 **REVENUES?**

10 A. Yes. The Company's Test Year bill analysis and adjustments made to Test
11 Year revenues are described in the testimony of witness Matthew P.
12 Schellinger II.

13 **B. Book and Pro Forma Adjustments**

14 **Q. HAS THE COMPANY PROPOSED BOOK AND PRO FORMA**
15 **ADJUSTMENTS TO CALCULATE ITS TEST YEAR REVENUE**
16 **REQUIREMENT?**

17 A. Yes. The Company has calculated various adjustments to components of
18 its revenue requirement as adjustments to the Test Year balances and
19 activity. These pro forma adjustments are summarized in Exhibit PJD-1 and
20 included with this testimony. In addition, please see the NCUC Form W-1
21 Report, Item #10 ("W1-10") and supplemental Schedules 1 through 29,

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1 included with the application. CWSNC included W1-10 adjustments for both
2 the Base Year and the WSIP Periods.

3 **C. Pro Forma Expenses**

4 **Q. PLEASE EXPLAIN THE COMPANY'S PRO FORMA ADJUSTMENT**
5 **METHODOLOGY FOR TEST YEAR SALARIES AND WAGES.**

6 A. CWSNC made pro forma salary adjustments, consistent with the methods
7 accepted in the last rate case, Docket No. W-354, Sub 384, for known and
8 measurable salary and wage expenses incurred by CWSNC. Employees
9 were organized into three groups to calculate pro forma salary and wage
10 expenses. The three employee groups are titled NC Operations (Direct),
11 Atlantic Region (North Carolina & South Carolina), and East Region (North
12 Carolina, South Carolina, and 2.9% of Florida). Employees were placed
13 into groups based on the percentage of their time spent on job functions
14 directly related to CWSNC. NC Operations employees spend 100% of their
15 time working for CWSNC exclusively, and 100% of their salary and wages
16 are charged to CWSNC. Atlantic Region employees are allocated between
17 the states of North Carolina and South Carolina, which make up the Atlantic
18 Region, using an Equivalent Residential Connection ("ERC") factor. An
19 ERC is a base unit measurement used to convert average daily flows
20 ("ADF") of different meter sizes to the equivalent number of single-family
21 residential connections. East Region salary expenses are allocated by
22 ERCs between North Carolina, South Carolina, and Florida. Employees in

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1 the East Region spend 90% of their time on Atlantic Region job duties and
2 10% of their work time (four hours per week) on East Region activities which
3 includes operations in the state of Florida. A Senior Vice President (“SVP”)
4 cost center was established to allocate the 10% of expenses between North
5 Carolina, South Carolina, and Florida. This same allocation method was
6 accepted in the last rate case, Docket No. W-354, Sub 384. The East
7 Region SVP organizational structure was created to streamline direct
8 reporting functions within the Company, to increase the sharing of best
9 practices across business units, and to provide additional support to
10 business units after Vice President of Operations positions were eliminated
11 across the Company, among other considerations. The Vice President of
12 Operations position was eliminated from all Corix Regulated Utilities
13 (“CRU”) business units in early 2021. This headcount has been removed
14 from CWSNC’s pro forma salary adjustment.

15 **Q. IS CWSNC MAKING OTHER ADJUSTMENTS TO SALARY AND WAGES**
16 **EXPENSES? IF SO, PLEASE DESCRIBE THESE ADJUSTMENTS.**

17 A. Yes. CWSNC is a making a pro forma adjustment to annualize the impact
18 for a change in the Company’s on-call pay structure for field operations staff.
19 CWSNC increased on-call pay benefits in February 2022. This increase was
20 made across all CRU business units and was necessary to ensure a
21 competitive pay structure within the marketplace. CRU’s (and CWSNC’s)
22 previous on-call rate was a flat \$15 per day. Employees are typically on-call

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1 for a full week and were previously paid \$105 for that period. During a typical
2 on-call week, field staff are prepared to be called out for emergency work
3 during all hours, including night and weekend hours. The low per diem on-
4 call rate was a frequent topic of objection made by field employees. In an
5 effort to retain skilled and valued employees, CRU increased daily on-call
6 compensation to an amount based on an employee's overtime rate. Under
7 the new on-call pay structure, field employees are paid their overtime rate
8 for each weekday and twice their overtime rate for each weekend day. For
9 example, an employee with a \$30 overtime rate is now paid \$150 for five
10 weekdays and \$120 for two weekend days, for a total weekly on-call rate of
11 \$270, which is a \$165 increase over the old rate. CWSNC calculates the
12 annual impact for the change in on-call pay to be approximately \$117,000
13 more than requested in the previous filing.

14 **Q. PLEASE DESCRIBE HOW THE COMPANY CALCULATED TEST YEAR**
15 **SALARY AND WAGE EXPENSES FOR DIRECT PRO FORMA**
16 **ALLOCATIONS.**

17 A. To prepare pro forma adjustments for Test Year salaries and wages in this
18 docket, the Company began with payroll and employee data for all active
19 employees as of the May 21, 2022 pay period. A vacancy rate is implied
20 using this method since only active employees are included in the
21 adjustment, and unfilled positions that do not have signed offer letters are
22 excluded. Overtime and holiday pay for hourly employees were updated for

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1 current May 21, 2022 data. On-call pay was annualized after February 2022
2 when the Company's new on-call pay structure was implemented. Deferred
3 compensation paid in May of 2022 was included for salary and wage
4 calculations for this proceeding. The sum of the new base salary, overtime,
5 on-call, holiday pay, and deferred compensation was used to arrive at the
6 annual salaries and wages amount per employee. Payroll and
7 unemployment taxes were also calculated to reflect pro forma salaries and
8 wage adjustments.

9 **Q. ARE CORPORATE SUPPORT SERVICE ALLOCATIONS INCLUDED IN**
10 **THE TEST YEAR PRO FORMA SALARIES AND WAGES**
11 **ADJUSTMENT?**

12 A. No. As explained in the Docket No. W-354, Sub 384 rate case, Corix
13 support service groups that performed similar functions were merged to
14 deliver more efficient and streamlined support to the entire Corix
15 organization. Due to this organizational change, support service salaries
16 are allocated through the tier 1 and tier 2 allocation process as explained in
17 the 2021 Cost Allocation Manual previously filed in Sub 384. Since no
18 changes have been made to the corporate allocation policy, the 2021 Cost
19 Allocation Manual did not require updating and is considered the most
20 recent version.

21 **Q. PLEASE EXPLAIN THE COMPANY'S TEST YEAR ADJUSTMENTS FOR**
22 **COSTS INCURRED FROM CORIX SUPPORT SERVICES.**

1 A. CWSNC removed \$11,124 of advertising and donation expenses from the
2 Corporate Allocation adjustment. This entry was made to the Corporate
3 Allocation account and presented as Adjustment 27 on the W1-10.

4 **Q. HAS CWSNC MADE ADJUSTMENTS TO REMOVE LOBBYING**
5 **RELATED AND OTHER NONRECOVERABLE EXPENSES FROM THE**
6 **TEST YEAR AND WSIP PERIODS?**

7 A. Yes. CWSNC removed \$97,190 from the Test Year for lobbying and other
8 expenses related to legislative efforts. These expenses have been removed
9 from the Base Year and are not being projected into the WSIP periods.
10 CWNSC also removed \$6,893 of advertising and other nonrecoverable
11 expenses from the Test Year and WSIP projection periods. These
12 adjustments were made to the Outside Services and other corresponding
13 accounts and presented as Adjustment 20 on the W1-10.

14 **Q. IS CWSNC MAKING UNIQUE ADJUSTMENTS FOR PURCHASED**
15 **WATER AND SEWER EXPENSES? IF SO, PLEASE DESCRIBE THESE**
16 **ADJUSTMENTS.**

17 A. Yes. CWSNC is annualizing certain purchased water and sewer expenses
18 for known and measurable price changes. This adjustment is necessary to
19 calculate an accurate Base Year cost of service. However, CWSNC is not
20 applying an inflation factor for increased purchased service costs during the
21 WSIP periods. Instead, CWSNC intends to use the Commission authorized
22 pass-through mechanism in N.C.G.S. § 62-133.11 to recover increases for

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1 purchased water and sewer costs incurred during the WSIP Rate Years.
2 CWSNC believes utilizing the pass-through mechanism will most accurately
3 reflect future changes in purchased service costs. If CWSNC applies an
4 inflation factor to Base Year purchased service costs, in addition to the
5 pass-through increases, these expenses will be double counted during the
6 WSIP Rate Years. However, CWSNC may apply a customer growth factor,
7 which aligns with corresponding revenue growth assumptions, to the
8 relevant purchased water and sewer systems. It is necessary to apply a
9 consistent growth factor to both revenue and expenses to properly match
10 revenue and expenses during the WSIP periods.

11 **Q. PLEASE EXPLAIN THE BENEFITS CWSNC CUSTOMERS RECEIVE**
12 **FROM THE COMPANY'S CORPORATE SUPPORT SERVICE**
13 **STRUCTURE.**

14 A. Corix's corporate support services are provided through the same structure
15 that was approved in Docket No. W-354, Sub 384. Benefits provided by this
16 corporate support service structure include human resources, payroll,
17 billing, accounts payable, treasury, legal, and other services that are
18 necessary for the operation of any business. CWSNC customers receive
19 these services on a shared basis, without having to bear the sole, full costs
20 of the services including critical and often expensive investments in
21 technology, security, safety, and environmental compliance. The parent
22 company also has experts across a range of essential areas such as

1 construction, engineering operations, accounting, data processing, billing,
2 regulation, and customer service that provide services to CWSNC and its
3 customers.

4 CWSNC customers benefit by having access to investment capital
5 to meet crucial funding needs. With increasingly more stringent health,
6 safety, and environmental standards, ready access to capital is vital to
7 continued quality service in the capital-intensive water and sewer utility
8 business. In addition, the Corix Group of Companies realize national
9 purchasing power to take advantage of economies of scale which result in
10 lower costs to ratepayers.

11 **D. Taxes Other Than Income**

12 **Q. HAS THE COMPANY PROPOSED ANY ADJUSTMENTS TO THE TEST**
13 **YEAR EXPENSES FOR PERSONAL OR REAL ESTATE PROPERTY**
14 **TAXES?**

15 A. The Company's Application does not include adjustments to the Test Year
16 actuals for personal or real estate property taxes. However, municipalities
17 are required in North Carolina to reassess property at least every eight
18 years. Assessments are currently being finalized and resulting tax rates are
19 soon to be approved and effective; therefore, the Company will provide
20 updates to its property and real estate taxes as new information becomes
21 available.

E. Capital Structure

1
2 **Q. WHAT IS THE COMPANY'S PROPOSED TEST YEAR CAPITAL**
3 **STRUCTURE?**

4 A. The Company is proposing an equity ratio of 50% and a debt ratio of 50%
5 for the Test Year and three WSIP periods. The proposed 50% equity ratio
6 is lower than the 50.20% equity ratio approved in Docket No. W-354, Sub
7 384. Although the Company's equity and debt ratios may fluctuate slightly
8 from 50% due to the timing of equity infusions and debt issuances, the
9 Company targets a 50% ratio over the long-term. The proposed cost of long-
10 term debt is 4.64% for the Base Year and WSIP periods. CWSNC's parent
11 company, CRU, has been able to issue debt at lower interest rates, reducing
12 the CWSNC's weighted cost of debt from 4.85% approved in Docket No.
13 W-345, Sub 384 to 4.64% proposed in this rate case proceeding. CWSNC's
14 capital ratios and costs are consistent with the target capital structure values
15 of the Company's parent, CRU. When including the proposed cost of equity
16 rate of 10.45%, which is the mid-point of Company expert witness Dylan
17 D'Ascendis' Return on Equity ("ROE") range, the resulting proposed overall
18 rate of return is 7.62% for the Base Year period. Mr. D'Ascendis projects an
19 increased range for the cost of equity during the WSIP periods. CWSNC
20 proposes to use a cost of equity of 10.70% during the three WSIP periods,
21 which results in a projected rate of return of 7.67% during WSIP periods 1,
22 2, and 3. Return on Equity of 10.70% is the average of the WSIP period

1 ROE ranges proposed by Mr. D'Ascendis. The rationale for the WSIP period
2 ROE ranges is supported in the testimony of Mr. D'Ascendis.

3 **F. Income Taxes**

4 **Q. WHAT INCOME TAX RATES HAS THE COMPANY UTILIZED IN THIS**
5 **PROCEEDING?**

6 A. The Company's Test Year revenue requirement calculations utilize the
7 current state income tax rate of 2.5% and federal income tax rate of 21%,
8 for a blended tax rate of 22.98%.

9 **III. TARIFF CHANGES**

10 **Q. WHAT CHANGES TO THE COMPANY'S TARIFF FEES, OUTSIDE OF**
11 **BASE RATES, ARE PROPOSED IN THIS APPLICATION?**

12 A. None have been proposed at this time. In addition, the Company has no
13 tariff changes for purchased water and sewer rate adjustments made by
14 third-party providers. The Company has not experienced rate increases
15 from purchased water and sewer providers since the Test Year ending
16 March 31, 2022. However, the Company will make updates for increases in
17 purchased water and sewer systems if they become known and measurable
18 during the discovery and update period. If any purchase water and sewer
19 providers increase rates that have not been recognized in a pass-through
20 request before the time of this hearing, CWSNC will request tariff

1 modifications for the pass-through expenses, and the Company will
 2 annualize the price increases in the filing exhibits.

3 **IV. TEST YEAR REVENUE REQUIREMENT**

4 **Q. PLEASE SUMMARIZE THE COMPANY'S TEST YEAR REVENUE**
 5 **REQUIREMENTS.**

6 A. Please see the following tables for Base Case revenue requirements and
 7 service revenues.

Uniform Rate Group Revenue Requirement			
Base Year	Water	Sewer	Total
	CWS - NC Uniform	CWS - NC Uniform	CWS - NC Uniform
Rate Base	71,568,627	67,505,888	139,074,514
Operating revenue deductions:			
Maintenance expenses	4,619,870	4,229,170	8,849,040
General expenses	9,711,948	5,732,780	15,444,728
Depreciation expense	3,849,218	3,390,408	7,239,627
Amortization of CIAC	(733,774)	(626,987)	(1,360,761)
Amortization of PAA	(117,511)	(17,455)	(134,966)
Amortization of ITC	(265)	(254)	(520)
TOII	495,316	333,540	828,856
Total operating revenue deductions	17,824,802	13,041,202	30,866,004
Net operating income for a return:			
Debt service return	1,662,553	1,568,175	3,230,728
Equity return	4,861,190	4,585,235	9,446,425
Revenue requirement	\$24,348,545	\$19,194,612	\$43,543,157
Misc. Revenues	(90,390)	(73,544)	(163,935)
Bad Debt	239,320	188,639	427,960
Total Service Revenues	\$24,497,475	\$19,309,707	\$43,807,182

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BF/FH/TC Rate Group Revenue Requirement			
Base Year	Water BF/FH/TC	Sewer BF/FH/TC	Total BF/FH/TC
Rate Base	3,727,180	10,714,675	14,441,856
Operating revenue deductions:			
Maintenance expenses	404,564	440,363	844,927
General expenses	1,129,847	1,156,481	2,286,328
Depreciation expense	216,499	483,242	699,741
Amortization of CIAC	(56,857)	(150,831)	(207,688)
Amortization of PAA	15,875	43,907	59,782
Amortization of ITC	-	-	-
TOII	42,791	45,628	88,419
Total operating revenue deductions	1,752,719	2,018,790	3,771,508
Net operating income for a return:			
Debt service return	86,583	248,904	335,487
Equity return	253,163	727,778	980,941
Revenue requirement	\$2,092,465	\$2,995,472	5,087,936
Misc. Revenues	(7,861)	(12,471)	(20,332)
Bad Debt	\$33,258	\$47,590	80,848
Total Service Revenues	\$2,117,862	\$3,030,591	\$5,148,452

V. PLAN YEAR 1 REVENUE REQUIREMENTS

Q. STARTING FROM THE TEST YEAR REVENUE REQUIREMENTS, PLEASE SUMMARIZE THE ADJUSTMENTS YOU MADE TO THE TEST YEAR REVENUE REQUIREMENTS TO DEVELOP PLAN YEAR 1 REVENUE REQUIREMENTS.

A. Please see NCUC Form W1-10 and W1-10 WSIP Periods and supporting W1-10 Schedules 1 through 29 for a complete list and support for adjustments made to the Test Year and Plan Year revenue requirements.

Q. PLEASE SUMMARIZE THE PLAN YEAR 1 REVENUE REQUIREMENTS.

A. Please see the following tables for WSIP Year 1 revenue requirements and service revenues.

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Uniform Rate Group Revenue Requirement			
WSIP Year 1	Water	Sewer	Total
	CWS - NC Uniform	CWS - NC Uniform	CWS - NC Uniform
Rate Base	79,541,443	78,979,857	158,521,300
Operating revenue deductions:			
Maintenance expenses	4,868,969	4,515,460	9,384,429
General expenses	10,333,527	6,092,280	16,425,808
Depreciation expense	4,082,969	3,684,453	7,767,422
Amortization of CIAC	(733,774)	(626,987)	(1,360,761)
Amortization of PAA	(117,511)	(17,455)	(134,966)
Amortization of ITC	(265)	(254)	(520)
TOII	519,115	353,686	872,801
Total operating revenue deductions	18,953,030	14,001,183	32,954,214
Net operating income for a return:			
Debt service return	1,847,764	1,834,718	3,682,482
Equity return	5,531,983	5,492,926	11,024,909
Revenue requirement	\$26,332,777	\$21,328,827	\$47,661,604
Misc. Revenues	(90,390)	(73,544)	(163,935)
Bad Debt	258,895	209,695	468,591
Total Service Revenues	\$26,501,282	\$21,464,978	\$47,966,260

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BF/FH/TC Rate Group Revenue Requirement			
WSIP Year 1	Water	Sewer	Total
	BF/FH/TC	BF/FH/TC	BF/FH/TC
Rate Base	5,871,812	11,563,630	17,435,442
Operating revenue deductions:			
Maintenance expenses	452,594	483,392	935,987
General expenses	1,210,768	1,230,998	2,441,766
Depreciation expense	249,901	507,304	757,205
Amortization of CIAC	(56,857)	(150,831)	(207,688)
Amortization of PAA	15,875	43,907	59,782
Amortization of ITC	-	-	-
TOII	46,101	47,162	93,262
Total operating revenue deductions	1,918,382	2,161,932	4,080,314
Net operating income for a return:			
Debt service return	136,403	268,625	405,028
Equity return	408,375	804,232	1,212,607
Revenue requirement	\$2,463,160	\$3,234,789	5,697,949
Misc. Revenues	(7,861)	(12,471)	(20,332)
Bad Debt	\$39,172	\$51,408	90,580
Total Service Revenues	\$2,494,471	\$3,273,726	\$5,768,197

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1 **VI. PLAN YEAR 2 REVENUE REQUIREMENTS**

2 **Q. STARTING FROM THE PLAN YEAR 1 REVENUE REQUIREMENTS,**
 3 **PLEASE SUMMARIZE THE ADJUSTMENTS YOU MADE TO DEVELOP**
 4 **PLAN YEAR 2 REVENUE REQUIREMENTS.**

5 A. Please see NCUC Form W1-10 and W1-10 WSIP Periods and supporting
 6 W1-10 Schedules 1 through 29 for a complete list and support for
 7 adjustments made to the Test Year and Plan Year revenue requirements.

8 **Q. PLEASE SUMMARIZE THE PLAN YEAR 2 REVENUE REQUIREMENTS.**

9 A. Please see the following tables for WSIP Year 2 revenue requirements and
 10 service revenues.

Uniform Rate Group Revenue Requirement	Water	Sewer	Total
WSIP Year 2	CWS - NC Uniform	CWS - NC Uniform	CWS - NC Uniform
Rate Base	84,610,980	88,461,236	173,072,216
Operating revenue deductions:			
Maintenance expenses	4,961,272	4,597,269	9,558,541
General expenses	10,659,275	6,267,489	16,926,764
Depreciation expense	4,220,890	3,935,105	8,155,995
Amortization of CIAC	(733,774)	(626,987)	(1,360,761)
Amortization of PAA	(117,511)	(17,455)	(134,966)
Amortization of ITC	(265)	(254)	(520)
TOII	537,731	369,955	907,686
Total operating revenue deductions	19,527,617	14,525,122	34,052,739
Net operating income for a return:			
Debt service return	1,965,530	2,054,972	4,020,502
Equity return	5,884,562	6,152,341	12,036,903
Revenue requirement	\$27,377,709	\$22,732,435	\$50,110,144
Misc. Revenues	(90,390)	(73,544)	(163,935)
Bad Debt	\$269,204	\$223,542	492,747
Total Service Revenues	\$27,556,523	\$22,882,433	\$50,438,956

BF/FH/TC Rate Group Revenue Requirement WSIP Year 2	Water BF/FH/TC	Sewer BF/FH/TC	Total BF/FH/TC
Rate Base	6,626,942	13,130,885	19,757,828
Operating revenue deductions:			
Maintenance expenses	462,652	502,033	964,686
General expenses	1,249,931	1,274,999	2,524,930
Depreciation expense	269,018	546,134	815,152
Amortization of CIAC	(56,857)	(150,831)	(207,688)
Amortization of PAA	15,875	43,907	59,782
Amortization of ITC	-	-	-
TOTI	47,907	49,144	97,051
Total operating revenue deductions	1,988,525	2,265,386	4,253,911
Net operating income for a return:			
Debt service return	153,945	305,033	458,978
Equity return	460,894	913,233	1,374,127
Revenue requirement	\$2,603,364	\$3,483,652	6,087,016
Misc. Revenues	(7,861)	(12,471)	(20,332)
Bad Debt	\$41,409	\$55,379	96,788
Total Service Revenues	\$2,636,912	\$3,526,560	\$6,163,472

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VII. PLAN YEAR 3 REVENUE REQUIREMENTS

Q. STARTING FROM THE PLAN YEAR 2 REVENUE REQUIREMENTS, PLEASE SUMMARIZE THE ADJUSTMENTS YOU MADE TO DEVELOP PLAN YEAR 3 REVENUE REQUIREMENTS.

A. Please see NCUC Form W1-10 and W1-10 WSIP Periods and supporting W1-10 Schedules 1 through 29 for a complete list and support for adjustments made to the Test Year and Plan Year revenue requirements.

Q. PLEASE SUMMARIZE THE PLAN YEAR 3 REVENUE REQUIREMENTS.

A. Please see the following table for WSIP Year 3 revenue requirements and service revenues.

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Uniform Rate Group Revenue Requirement			
WSIP Year 3	Water	Sewer	Total
	CWS - NC Uniform	CWS - NC Uniform	CWS - NC Uniform
Rate Base	89,475,536	97,015,506	186,491,042
Operating revenue deductions:			
Maintenance expenses	5,054,470	4,479,457	9,533,927
General expenses	10,995,328	6,446,164	17,441,493
Depreciation expense	4,363,117	4,195,875	8,558,992
Amortization of CIAC	(733,774)	(626,987)	(1,360,761)
Amortization of PAA	(117,511)	(17,455)	(134,966)
Amortization of ITC	(265)	(254)	(520)
TOII	556,898	385,957	942,855
Total operating revenue deductions	20,118,263	14,862,756	34,981,019
Net operating income for a return:			
Debt service return	2,078,535	2,253,690	4,332,225
Equity return	6,222,884	6,747,277	12,970,161
Revenue requirement	\$28,419,682	\$23,863,723	\$52,283,405
Misc. Revenues	(90,390)	(73,544)	(163,935)
Bad Debt	\$279,484	\$234,703	514,188
Total Service Revenues	\$28,608,776	\$24,024,882	\$52,633,658

1

BF/FH/TC Rate Group Revenue Requirement			
WSIP Year 3	Water	Sewer	Total
	BF/FH/TC	BF/FH/TC	BF/FH/TC
Rate Base	7,039,948	13,687,340	20,727,289
Operating revenue deductions:			
Maintenance expenses	474,366	521,419	995,785
General expenses	1,289,123	1,318,684	2,607,807
Depreciation expense	279,762	563,141	842,904
Amortization of CIAC	(56,857)	(150,831)	(207,688)
Amortization of PAA	15,875	43,907	59,782
Amortization of ITC	-	-	-
TOII	49,540	50,751	100,291
Total operating revenue deductions	2,051,809	2,347,071	4,398,880
Net operating income for a return:			
Debt service return	163,539	317,960	481,499
Equity return	489,617	951,933	1,441,550
Revenue requirement	\$2,704,965	\$3,616,964	6,321,929
Misc. Revenues	(7,861)	(12,471)	(20,332)
Bad Debt	\$43,030	\$57,506	100,536
Total Service Revenues	\$2,740,134	\$3,661,999	\$6,402,133

2

1 **VIII. STATUS OF CERTAIN OTHER REGULATORY**
2 **MECHANISMS DURING THREE-YEAR WSIP PERIOD**

3 **Q. ARE ANY OF THE COMPANY'S CURRENT RATE MECHANISMS**
4 **ALTERED BY THE APPROVAL AND IMPLEMENTATION OF A WSIP?**

5 A. Yes. The WSIC/SSIC is authorized by N.C.G.S. § 62-113.12, and the
6 customer usage tracking rate adjustment mechanisms for water and
7 wastewater rates is authorized by N.C.G.S. § 62-113.12A. Both types of
8 mechanisms must be discontinued during the pendency of a WSIP, per the
9 terms of N.C.G.S. § 133.1B(d):

10 Any rate adjustment mechanism authorized pursuant to G.S.
11 62-133.12 or G.S. 62-133.12A shall be discontinued during
12 the term of any Water and Sewer Investment Plan. The utility
13 may file for a rate adjustment mechanism authorized pursuant
14 to G.S. 62-133.12, which shall not become effective before
15 the end of the Water and Sewer Investment Plan.

16 **IX. WSIP REPORTING REQUIREMENTS**

17 **Q. WHAT IS YOUR UNDERSTANDING OF THE REPORTING**
18 **REQUIREMENTS CONTAINED IN THE WSIP STATUTE AND RULES?**

19 A. Rule R1-17A(g)(1), addressing the Annual Review, sets forth specific
20 reporting requirements in sub-sections a -- f. The Public Staff will review the
21 utility's report and must file its own report detailing findings and
22 recommendations no later than four months after the end of each Rate Year
23 of the Plan. The utility may respond to the Public Staff's report within 15
24 days after such filing. *See Rule R1-17A(g)(2)*

1 Additionally, Rule R1-17A(j) contains the following reporting
2 requirements:

3 The utility shall make filings addressing each three month
4 period within the Plan period. The first filing shall be made no
5 later than 45 days after the first three-month period, and
6 subsequent reports shall be made every three months
7 thereafter.

8 Each filing shall contain: (1) an earnings report; (2) a status report; and (3)
9 the number of utility customers disconnected for nonpayment for the three-
10 month period and cumulative rate-year to date. CWSNC is mindful of the
11 obligation of the Commission and the Public Staff to exercise meaningful
12 oversight of the Plan and understands that adherence to the reporting
13 requirements is an essential component of this process.

14 **Q. HOW DOES CWSNC PLAN TO COMPLY WITH THESE REPORTING**
15 **REQUIREMENTS?**

16 A. If the Commission approves CWSNC's WSIP application, the Company
17 plans to follow all reporting requirements stated in Rule R1-17A and file
18 timely reports consistent with the annual review requirements in Rule R1-
19 17A(g) and the reporting requirements in Rule R1-17A(j).

20 **X. UPDATE ON WATER EFFICIENCY AND FEE-FREE PAYMENT**
21 **PROGRAMS**

22 **Q. PLEASE UPDATE THE COMMISSION ON THE STATUS OF THE**
23 **WATER EFFICIENCY REBATE PROGRAM APPROVED IN THE**
24 **COMPANY'S LAST RATE CASE?**

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1 A. CWSNC requests to continue implementing the efficiency rebate pilot
2 program under the terms approved in Docket No. W-354, Sub 384. CWSNC
3 customers can now download the efficiency rebate application from the
4 CWSNC website and MyUtilityConnect portal. Customers can either email
5 rebate applications directly to CWSNC by using
6 Waterefficiency@carolinawaterservicenc.com or mail applications to the
7 CWSNC office address shown on the application form. CWSNC will
8 continue its customer outreach and communication program to explain how
9 customers can take advantage of the rebate pilot. Since customer noticing
10 costs were not incurred within the Test Year, CWSNC is requesting
11 recovery for the estimated \$2,000 annual noticing costs to promote the
12 program. This pro forma adjustment is made to the Customer Service
13 Printing account and presented as Adjustment 23 on the W1-10. The
14 program was slowed by the necessity to create rebate credit codes in our
15 billing system but is now fully operational. CWSNC will approve applications
16 retroactive to April 8, 2022 when the Commission authorized the rebate
17 program. At the time of this testimony, no applications have been received.
18 However, the Company is expecting greater participation as our outreach
19 efforts continue.

20 **Q. PLEASE UPDATE THE COMMISSION ON THE STATUS OF FEE-FREE**
21 **PAYMENT PROGRAM APPROVED IN THE COMPANY'S LAST RATE**
22 **CASE.**

1 A. After CWSNC received approval to implement the fee-free electronic
2 payment program for retail customers, the Company met with its third-party
3 payment vendor, First Billing Services (“FBS”), to implement the new
4 payment process. FBS indicated it would take approximately 90 days to
5 reconfigure the electronic payment options for retail customers. Additional
6 back-end work was required to update CWSNC’s MyUilityConnect portal to
7 accommodate removing the electronic convenience fees charged at the
8 point of payment. The fee-free payment program is scheduled to be fully
9 operational by mid-July consistent with FPS’s initial timeline. CWSNC has
10 reflected \$274,886 of estimated third-party transaction fees as a pro forma
11 adjustment consistent with the approved adjustment in Docket No. W-354,
12 Sub 384. This entry is presented as Adjustment 23 on the W1-10.

13 **XI. CONCLUSION**

14 **Q. IS THIS TESTIMONY TRUE AND ACCURATE TO THE BEST OF YOUR**
15 **KNOWLEDGE, INFORMATION, AND BELIEF?**

16 A. Yes.

17 **Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

18 A. Yes, it does. However, I reserve the right to update or amend this testimony
19 upon receipt of additional relevant data or other information that may
20 become available.

21

1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A. My name is Dana Hill and my business address is 4494 Parkway Plaza
3 Boulevard, Suite 375, Charlotte, North Carolina 28217.

4 **Q. WHERE ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

5 A. I am a Director of State Operations for Carolina Water Service, Inc. of North
6 Carolina ("CWSNC" or "Company").

7 **Q. WHAT IS YOUR EDUCATIONAL AND PROFESSIONAL**
8 **BACKGROUND?**

9 A. I have been employed with CWSNC since October of 2018 and have been
10 in the water and sewer profession for 28 years, collectively. Prior to my
11 employment with the Company, I worked for more than 24 years for the
12 Town of Snow Hill, serving most recently as the Utilities Director and Town
13 Manager. I hold certifications in water and sewer treatment as well as utility
14 management.

15 **Q. WHAT ARE YOUR DUTIES AS DIRECTOR OF STATE OPERATIONS**
16 **WITH CWSNC?**

17 A. I am responsible for directing the safe and efficient operations in eastern
18 North Carolina, including personnel, facilities, maintenance, and capital
19 projects, as well as for communicating with state and federal regulators
20 regarding operational and capital issues.

21 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS**
22 **PROCEEDING?**

1 A. The purpose of my testimony is to provide the North Carolina Utilities
2 Commission (“Commission” or “NCUC”) with an overview of the operations
3 of CWSNC, including the significant capital investments made since the
4 Company’s last rate case. I also provide an update on CWSNC’s investment
5 in new technology in support of operations as well as the continued efforts
6 to address non-revenue water. Furthermore, I will provide an overview of
7 the capital investment plan element of the Water & Sewer Investment Plan
8 (“WSIP”) and describe how this capital methodology will serve our
9 customers’ interests. I then explain how the anticipated capital investment
10 levels were developed and describe the more significant specific capital
11 investment projects. My testimony also addresses the proposed addition of
12 a pretreatment, or “sewer use,” tariff.

13 **Q. PLEASE BRIEFLY DESCRIBE THE COMPANY’S WATER AND SEWER**
14 **OPERATIONS IN NORTH CAROLINA.**

15 A. CWSNC is a wholly owned subsidiary of Corix Regulated Utilities, Inc.
16 (“CRU”). CWSNC is an investor-owned public utility pursuant to N.C. Gen.
17 Stat. (“N.C.G.S.”) § 62-3, does business as a regulated water and sewer
18 utility in North Carolina, and is subject to the regulatory oversight of the
19 Commission. The Company has provided water and sewer service in North
20 Carolina for over 55 years and applies in this case for an adjustment of its
21 water and sewer rates and charges for all the Company’s service areas in
22 North Carolina. The Company is the second-largest Commission-regulated

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1 water and sewer public utility in North Carolina. CWSNC presently serves
2 approximately 34,565 water customers and 21,469 sewer customers¹ in
3 North Carolina and operates approximately 93 water systems and 38 sewer
4 systems in the state. The Company's service territory spans 38 counties in
5 North Carolina from Bear Paw in Cherokee County to Corolla in Currituck
6 County. Consequently, CWSNC, as a regulated public utility, has a
7 continuing responsibility to maintain and upgrade the Company's widely
8 dispersed utility infrastructure and to make necessary improvements to
9 ensure its ability to consistently provide adequate, efficient, and reasonable
10 service to its customers as required by N.C.G.S. § 62-131(b).

11 The Company also has an obligation to comply with changing
12 environmental, health, and safety regulations and to fulfil its overall
13 obligation to provide quality, dependable service pursuant to its certificate
14 of public convenience and necessity. To that end, CWSNC will have
15 invested approximately \$17.3 million in capital improvements since its last
16 general rate case that is not yet reflected in rates. These investments are
17 needed to replace and rehabilitate infrastructure and to modernize and
18 increase efficiencies in the Company's systems. In addition, the Company

¹ As of the March 31, 2022 Test Year, there are 31,242 active water customers, 3,323 water availability customers, 20,330 active sewer customers, and 1,139 sewer availability customers.

1 continues to fund required operations and expense ("O&M") increases to
2 ensure quality and compliant service.

3 **Q. PLEASE DESCRIBE THE COMPANY'S MOST SIGNIFICANT**
4 **INVESTMENTS SINCE ITS LAST GENERAL RATE CASE.**

5 A. Since its last general rate case, the Company has invested in several capital
6 improvement projects. Among the most significant of such capital projects
7 are the following:

8 (1) Wastewater Collection System Improvements:

9 Systems were evaluated through heavy cleaning and closed-circuit
10 television inspections to identify faulty connections, breaks, and
11 other sources of inflow and infiltration. These efforts were
12 undertaken to reduce hydraulic loading caused by the introduction of
13 groundwater and stormwater which decreases treatment capacity
14 and could lead to sanitary sewer overflows. Once areas of concern
15 were identified, repairs or replacements were performed. All work will
16 be completed by August 31, 2022 in the following systems, with the
17 exception of the Mount Carmel project, which will be completed by
18 September 30, 2022:

- 19 • Bradfield Farms, Mecklenburg County- \$598,907
- 20 • Connestee Falls, Transylvania County- \$366,890
- 21 • Abington, Forsyth County- \$677,256

- 1 • Mount Carmel, Madison County- \$587,784

2 (2) Lift Station Replacements: The Company replaced
3 a lift station in Sapphire Valley (Jackson County). This project
4 continues the Company's effort to replace all dry-can style stations
5 with safer wet-well arrangements. These upgrades will also reduce
6 system vulnerability during significant rain events and severe
7 weather by eliminating pumps that may be prone to flood damage.
8 Customers will benefit through fewer service interruptions and
9 potential annual energy savings. Total expenses related to this
10 upgrade were \$543,725, and the project has been placed into
11 service.

12 (3) Water Supply Improvements: The Company
13 invested in upgrades to Stewarts Ridge Well #1 in Wake County.
14 This project consisted of replacing all existing internal piping and the
15 addition of filtration equipment to remove uranium, iron, and
16 manganese. The project was undertaken to remain compliant with
17 standards as defined by the North Carolina Department of
18 Environmental Quality as well as to provide a redundant source of
19 potable water for the community. The estimated cost of the project is
20 \$87,339, and it is expected to be in service by July 31, 2022.

1 Additionally, in Mount Mitchell (Yancey County), the Company
2 replaced a 30,000-gallon ground storage tank due to end-of-life degradation
3 to improve water quality at a cost of \$624,476, with an estimated in-service
4 date of August 31, 2022. In addition, a booster station was constructed in
5 Sapphire Valley (Jackson County) to allow for the removal of an existing
6 hydro-pneumatic tank that had become a safety concern due to age and
7 condition. A main transmission line was also upgraded as a part of this
8 project to provide increased volume and improved water quality, which is
9 attributed to fewer service interruptions. Total costs were \$525,000, and the
10 project is estimated to be placed into service by September 31, 2022.

11 (4) Leak Detection: The Company performed acoustic
12 leak detection in three systems with above normal water loss to
13 identify and repair leaks and reduce non-revenue water production.
14 In Fairfield Harbour (Craven County), one quadrant has been
15 completed with 16 leaks identified and repaired at a cost of \$140,037,
16 eliminating an estimated water loss of 14,000,000 gallons per year.
17 In Sherwood Forest (Transylvania County), nine leaks were
18 identified and repaired at a cost of \$78,576, eliminating an estimated
19 water loss of 11,037,600 gallons per year. Leak detection efforts in
20 Connestee Falls (Transylvania County) resulted in 22 leaks being
21 located at a cost of \$130,974. This eliminated an estimated water
22 loss of 19,841,200 gallons per year.

1 (5) Purchased Water Treatment Improvements: The
2 Company engaged in treatment improvements in Whispering Pines
3 (Moore County). These investments were made to boost the
4 orthophosphate treatment at Entry Point #1 to aid in iron
5 sequestration. This will allow for a significant reduction in system
6 flushing and improve the water quality for customers. This project,
7 which cost \$268,108, is expected to be complete and in service by
8 August 31, 2022.

9 In addition, the Company has made many other investments in
10 various systems, including water main replacements, tank rehabilitation,
11 and miscellaneous equipment replacements.

12 Finally, I would add that the cost figures and estimates reflected
13 above, among other detailed estimates, are expressly identified on W1-10,
14 Schedule 2, and the Company intends to update, in this proceeding, all
15 relevant cost estimates with actual costs after the actual costs become
16 available.

17 **Q. PLEASE DESCRIBE THE COMPANY'S INVESTMENT IN CERTAIN**
18 **TECHNOLOGIES THAT SUPPORT OPERATIONS.**

19 A. The Company continues its Operations Management System ("OMS")
20 initiative, implementing a comprehensive asset management program
21 through which inspections and preventative maintenance will be scheduled
22 and assigned to staff for all critical equipment. The Company is also

1 implementing a uniform supervisory control and data acquisition (“SCADA”)
2 system in a phased approach as: (1) remediation of identified cyber-security
3 vulnerabilities; (2) transition of systems from obsolete legacy monitoring
4 platforms; and (3) rehabilitation or replacement of facilities. The intent of this
5 approach is to extend the feasible lifespan of our existing monitoring
6 solutions whenever possible. The Company expects to realize reductions in
7 operating expenses as SCADA systems are activated by a reduction in
8 facility visits and the ability to identify and resolve problems remotely.

9 **Q. CAN YOU PROVIDE AN UPDATE ON THE STATUS OF THE**
10 **ADVANCED METERING INFRASTRUCTURE ROLLOUT THROUGHOUT**
11 **THE STATE?**

12 A. The Company has identified and entered into an agreement with a vendor
13 to standardize equipment throughout its service areas. Implementation will
14 be undertaken in a phased approach with priority given to systems in which
15 the geographical characteristics make manual reading challenging, such as
16 mountainous terrain during weather events, as well as systems
17 characterized by high water loss due to meter age and accuracy.

18 **Q. PLEASE SUMMARIZE THE COMPANY’S CONTINUED EFFORTS TO**
19 **ADDRESS NON-REVENUE WATER.**

20 A. The Company has continued to implement its non-revenue water (“NRW”)
21 strategy to define the measures taken by staff, which are focused on three
22 core factors that will lead to better financial and operational sustainability:

1 (1) meter accuracy, whereby source meters have been
2 replaced during the past five years and are tested regularly, as are
3 purchase system entry points. Representative residential meters are
4 tested annually, and replacements are made as needed to ensure
5 accuracy;

6 (2) process water usage is recorded and tracked
7 monthly, such as volumes flushed for water quality, lost to repaired
8 leaks, and used for internal treatment such as chemical feeds, in an
9 effort to quantify true unidentified loss; and

10 (3) leak identification through district metering in
11 systems with significant unidentified loss. This process consists of
12 installing large diameter meters strategically throughout the system
13 and comparing the volume of water passing into a geographical “sub-
14 area” with the volumes billed to customers to identify specific
15 sections of concern. Acoustic leak detection technology is utilized to
16 locate potential repair needs and has been implemented in several
17 systems with admirable results. American Water Works Association
18 (“AWWA”) water audits are performed on all systems annually, and
19 system specific reviews are conducted monthly by operations staff.

20 The Company has recently engaged a contractor for satellite
21 assisted leak detection, whereby several systems located in a geographical
22 area can be evaluated at once. Satellite technology has proven to be an

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1 effective tool and is particularly valuable in mountainous terrain. As a result
 2 of the continued focus on non-revenue water, most of the purchase systems
 3 decreased in loss percentage in 2021 compared to 2020, as reflected
 4 below:

SYSTEM	2020 % loss	2021 % loss
Whispering Pines	7.6	5.2
Winston Pointe	1.3	1.2
High Vista	35.7	34
Riverbend	35.2	32
Woodrun	31.4	27.4
Kings Grant	26.5	35.8
Riverpointe	8.6	6.6
Carolina Trace	11.7	12.9
Tanglewood	14.6	7.9
Zemosa Acres	22.6	24.9
Carolina Forest	26	15.5
Lamplighter	12.9	1
Yorktown	10.5	7
Bent Creek	5.5	6.4

5
 6 This strategy is consistent with the principles of the AWWA M36 Manual
 7 (“Water Audits and Loss Control Programs”) and addresses NRW based
 8 upon the system-specific economic level of intervention. In addition to the
 9 previously described efforts, the Company continues to regularly review
 10 vacancy and zero consumption reports to ensure that all billable volumes
 11 are accurately captured. The Company reviews its strategy on a regular
 12 basis and updates as necessary based on whether tangible results are
 13 achieved.

1 **Q. PLEASE SUMMARIZE THE COMPANY'S THREE-YEAR WSIP**
2 **REQUEST IN THIS PROCEEDING.**

3 A. The Company requests approval of a three-year WSIP, with a test year of
4 the 12 months ending March 31, 2022 (the "Test Year") with plan year 1
5 ending March 31, 2024, plan year 2 ending March 31, 2025, and plan year
6 3 ending March 31, 2026.

7 **Q. WHAT IS YOUR UNDERSTANDING OF THE NORTH CAROLINA WSIP**
8 **STATUTE AND RULES AS THEY PERTAIN TO CAPITAL**
9 **INVESTMENTS?**

10 A. As part of the WSIP statute (N.C.G.S. § 62-133.1B), the Commission may
11 approve a WSIP, authorizing annual rate changes for a three-year period
12 based, in part, on reasonably known and measurable capital investments.
13 After N.C.G.S. § 62-133.1B was passed, the Commission undertook an
14 exacting investigation to develop the terms, conditions, and procedures for
15 WSIPs (Docket No. W-100, Sub 63). At the conclusion of that investigation,
16 the Commission issued its January 7, 2022 WSIP Order, which set out
17 detailed filing requirements in Commission Rule R1-17A – specifically at
18 subsection (c).²

² CWSNC notes and observes the Commission's requirement that a WSIP must be consistent with the requirements of Rule R1-17, unless otherwise noted. Rule R1-17 prescribes the requirements associated with filing a traditional, general rate case pursuant to N.C.G.S. § 62-133.

1 Subsection (c) requires that the utility's WSIP include a three-year
2 capital investment plan by rate division that addresses:

- 3 • All proposed capital investment projects expected to be
4 placed in service in the period starting on the date
5 immediately following the end date specified by the
6 Commission for the update of utility plant in service and
7 continuing through the conclusion of the Plan for which the
8 utility seeks cost recovery through the Plan mechanism. Rule
9 R1-17A(c)(2)(a);
- 10 • A detailed description, including the reason for and scope of
11 each proposed capital investment project. Rule R1-
12 17A(c)(2)(b);
- 13 • The estimated in-service date of each proposed capital
14 investment project. Rule R1-17A(c)(2)(c); and
- 15 • The asset account per the National Association of Regulatory
16 Utility Commissioners ("NARUC") Uniform System of
17 Accounts and the annual depreciation rate for each proposed
18 capital investment project. Rule R1-17A(c)(2)(d).

19 **Q. PLEASE IDENTIFY THE CAPITAL INVESTMENT PLAN THAT THE**
20 **COMPANY IS SUBMITTING IN THIS PROCEEDING.**

1 A. I am sponsoring Appendix 11 – Schedule J, which is the Company’s three-
2 year capital investment plan as required in Rule R1-17A(c)(2).

3 **Q. BEFORE REVIEWING ITS CONTENTS, PLEASE DESCRIBE HOW THE**
4 **CAPITAL INVESTMENT PLAN WAS DEVELOPED?**

5 A. CWSNC performed a rigorous review of known capital needs and prioritized
6 those investments based on a range of factors, including environmental
7 regulatory compliance, conditions negatively affecting quality of service,
8 current facility conditions to identify efficiencies in terms of replacement
9 versus rehabilitation, safety concerns, and rate impact to customers. The
10 final capital improvement plan was created and approved by CWSNC staff
11 representing disciplines including engineering, project management,
12 financial planning & analysis, operations, and senior management.

13 **Q. HOW DID THE PLANNING PROCESS IDENTIFY REASONABLY**
14 **KNOWN AND MEASURABLE CAPITAL INVESTMENTS?**

15 A. The Company maintains a replacement and rehabilitation schedule for
16 critical, higher cost facilities as well as initiatives to reduce non-revenue
17 water, inflow and infiltration, and technology implementation. These
18 investments are regularly prioritized based on severity, end of life
19 estimations, and the ability to reduce operation and maintenance expenses.
20 The success of the investments is measured by improved regulatory
21 compliance and the resulting reduction in operational costs.

1 **Q. EXPLAIN IN DETAIL THE ROLE THAT BLACK AND VEATCH PLAYED**
2 **WITH RESPECT TO THE DEVELOPMENT OF THE CAPITAL**
3 **INVESTMENT PLAN.**

4 A. The Company engaged Black and Veatch to evaluate its previously
5 identified schedule for capital investment to verify and authenticate scope
6 of work, schedules, and cost forecasting. CWSNC engineering, project
7 management, and operations staff worked closely with Black and Veatch to
8 produce a formal Capital Improvement Plan to reflect improvements during
9 the forecasted period.

10 **Q. DID BLACK AND VEATCH CHOOSE WHICH PROJECTS WOULD**
11 **COMPRISE THE CAPITAL INVESTMENT PLAN?**

12 A. No. While Black and Veatch participated in the process as I just described,
13 ultimately the Company selected the specific projects which are included in
14 the capital investment plan.

15 **Q. DOES THE CAPITAL INVESTMENT PLAN ALIGN WITH THE**
16 **COMPANY'S BUSINESS GOALS?**

17 A. A Yes. The Company acknowledges that not every forecasted capital
18 project will develop exactly as we currently envision. CWSNC's capital
19 forecast is aligned with its goals, and as a result, the forecast provides a
20 reliable and representative picture of the capital investments that will occur
21 during the WSIP period.

1 **Q. DOES THE CAPITAL INVESTMENT PLAN INCLUDE ALL PROPOSED**
2 **CAPITAL INVESTMENT PROJECTS EXPECTED TO BE PLACED IN**
3 **SERVICE IN THE PERIOD STARTING ON THE DATE IMMEDIATELY**
4 **FOLLOWING THE END DATE SPECIFIED BY THE COMMISSION FOR**
5 **THE UPDATE OF UTILITY PLANT IN SERVICE AND CONTINUING**
6 **THROUGH THE CONCLUSION OF THE PLAN FOR WHICH THE**
7 **UTILITY SEEKS COST RECOVERY THROUGH THE PLAN**
8 **MECHANISM?**

9 A. Yes. All planned capital investment projects are included, though it is not
10 abnormal for critical infrastructure which may not be identified in the Capital
11 Improvement Plan to fail and necessitate an emergency project be
12 undertaken.

13 **Q. DOES THE CAPITAL INVESTMENT PLAN PROVIDE A DETAILED**
14 **DESCRIPTION, INCLUDING THE REASON FOR AND SCOPE OF EACH**
15 **PROPOSED CAPITAL INVESTMENT PROJECT?**

16 A. Yes. Each identified investment is described to include the full scope of work
17 as well as the justified finished product and outcome to align with the
18 priorities listed above.

19 **Q. DOES THE CAPITAL INVESTMENT PLAN STATE THE ESTIMATED IN-**
20 **SERVICE DATE OF EACH PROPOSED CAPITAL INVESTMENT**
21 **PROJECT?**

1 A. Yes. An estimated in-service date is defined for each project based on
2 current market conditions and supply chain restraints.

3 **Q. DOES THE CAPITAL INVESTMENT PLAN SET FORTH THE ASSET**
4 **ACCOUNT PER THE NARUC UNIFORM SYSTEM OF ACCOUNTS?**

5 A. Yes. Each project lists the associated NARUC account coding in
6 compliance with Rule R17-1A(c)(2)(d).

7 **Q. DOES THE CAPITAL INVESTMENT PLAN DESCRIBE THE ANNUAL**
8 **DEPRECIATION RATE FOR EACH PROPOSED CAPITAL INVESTMENT**
9 **PROJECT?**

10 A. Yes. Each project lists the annual depreciation rate as required in Rule R17-
11 1A(c)(2)(d).

12 **Q. PLEASE DESCRIBE THE SOME OF THE TYPES OF CAPITAL**
13 **INVESTMENTS IN THE PLAN.**

14 A. The Capital Improvement Plan identifies a comprehensive list of
15 investments required to maintain continuous, efficient, and safe operations
16 in order to provide quality service to our customers and adequate
17 environmental protection. While not all inclusive, the following projects
18 represent some of the significant investments:

- 19
- Advanced Metering Infrastructure (AMI) - This project will be
20 performed in a phased approach to replace older, inaccurate
21 meters. The technology will improve operational efficiency,

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- 1 reduce O&M costs, and improve the accuracy of customer
2 billing.
- 3 • Silverton Wellhouse and Interconnection to Bradfield Farms -
4 This project will rehabilitate two existing wells, construct new
5 buildings, and replace internal piping as well as provide a
6 connection to neighboring Bradfield Farms to improve water
7 quality and provide a redundant water source to customers.
 - 8 • Sugar Mountain WWTP Rehabilitation - These improvements
9 will be implemented in a phased approach to replace the
10 existing chlorination chamber due to end of life condition with
11 an Ultraviolet (UV) system for improved safety. Phase 2 will
12 involve constructing a new influent structure to improve
13 operational efficiency.
 - 14 • Brandywine Bay WWTP Replacement - The current treated
15 water disposal method has resulted in environmental
16 regulatory non-compliance, and the existing structures are
17 past their useful life. The system will be replaced with
18 Sequencing Batch Reactor (SBR) technology and utilize high-
19 rate infiltration as the disposal method.

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- 1 • Danby WWTP Replacement - The existing facility's age and
2 condition has exceeded its useful life and requires
3 improvements to maintain service reliability and
4 environmental compliance.
- 5 • Fairfield Harbour WWTP Rehabilitation - This investment will
6 include a complete recoating of the existing steel structures
7 to extend the useful life of the system as well as upgrade
8 blowers and add anoxic zones to achieve environmental
9 compliance related to nutrient removal.

10 **Q. HOW CAN THE COMMISSION BE ASSURED THAT THE COMPANY**
11 **WILL NOT OVER-COLLECT FOR ITS CAPITAL INVESTMENTS DURING**
12 **THE WSIP?**

13 A. The safeguards contained in the WSIP Rules – specifically the rate base
14 and earnings reporting, the refunds for “overearnings,” the 5% limit on
15 revenue increases for Plan Years 2 and 3, and the Commission’s ability to
16 modify the WSIP if necessary – will ensure that the Company will not over-
17 collect or over-earn during the WSIP. At the same time, the WSIP will
18 provide the Company with flexibility to manage its business and its capital
19 plans.

20 **Q. CAN YOU ADDRESS HOW THE WSIP ALLOWS FOR FLEXIBILITY**
21 **WITH REGARD TO ITS CAPITAL PLANS?**

1 A. The WSIP will allow the Company to make some changes in the years in
2 which the projects within the Capital Investment Plan are implemented,
3 within certain parameters. The WSIP, by definition, is a forward-looking
4 three-year rate plan that may include future investment in infrastructure
5 projected to be placed in service during the entire WSIP period. The
6 Company will have the flexibility to make reasonable and prudent
7 investment decisions as to which approved projects are implemented in
8 which years. The Public Staff and the Commission will have the opportunity
9 to review the actual infrastructure improvements installed by the Company
10 through the quarterly reporting process discussed below. The regulatory
11 process is improved by having a clearer view of the investment planning
12 and implementation procedures. This is a significant means by which the
13 WSIP benefits customers, regulators, and the Company.

14 **Q. DO THE WSIP STATUTE AND RULES CONTEMPLATE REPORTING**
15 **REQUIREMENTS WITH RESPECT TO THE CAPITAL INVESTMENT**
16 **PLAN?**

17 A. Yes. The WSIP Rules require the utility to file, within 45 days after the end
18 of each Rate Year, an annual report that includes, among other things, a
19 schedule of the estimated capital investment projects to be placed in-
20 service during the remaining Rate Years of the Plan, including total in-
21 service costs; in-service date; applicable rate division; NARUC asset
22 account; and annual depreciation rate. Additionally, the WSIP Rules require

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1 the utility to file quarterly reports within the Plan period which include,
2 among other things, a capital investment project status report. Company
3 Witness Drennan's testimony describes these compliance filings in more
4 detail.

5 **Q. DOES THE COMPANY COMMIT TO COMPLY WITH THESE**
6 **REPORTING REQUIREMENTS?**

7 A. Yes.

8 **Q. DOES THE CAPITAL INVESTMENT PLAN INCLUDE ROUTINE**
9 **MAINTENANCE PROJECTS OR EXPENDITURES?**

10 A. No. The Company's WSIP does not consider routine, recurring expenses to
11 qualify as capital investment projects under the Plan. However, while not
12 specifically planned, history and experience have shown that routine
13 maintenance is a necessary and prudent expenditure in running a utility. As
14 such, we are including reasonable estimates for such maintenance in the
15 aggregate. These "high volume, low cost" items represent a significant
16 annual investment of approximately \$7M, often with no clear foresight
17 regarding when the failures will occur or the cost of replacement. Examples
18 of these investments include individual pump and motor replacements
19 (either due to failure or loss of efficiency), main line breaks, electrical
20 component failure, etc. Timely repair or replacement of this ancillary
21 equipment is critical to provide quality service to our customers and
22 adequate environmental protection.

1 **Q. PLEASE EXPLAIN THE COMPANY PROPOSAL WITH RESPECT TO**
2 **THE PRETREATMENT OR “SEWER USE” TARIFF.**

3 A. CWSNC requests Commission approval of both a proposed Sewer Use
4 Rule and related tariff wording applicable to customers who discharge
5 nondomestic or industrial waste into the Company’s wastewater systems.
6 NCUC Rule R10-16 allows disconnection by the utility for “neglect or refusal
7 on the part of a customer to comply with . . . (the Commission’s) . . . rules
8 or the utility’s rules properly filed with the Commission[.]”

9 **Q. WHY DOES CWSNC NEED SUCH A RULE AND THE RELATED**
10 **TARIFF?**

11 A. CWSNC has a demonstrated need for some capability to define discharge
12 limits for sewer customers and to provide a mechanism for requiring pre-
13 treatment, monitoring, and enforcement for the discharge of fats, oils, and
14 grease as well as other contaminants that are harmful to the treatment
15 process, customers, employees, or the environment. These discharges,
16 primarily from commercial users, increase operational expenses and
17 interrupt the biological and mechanical treatment facilities thus posing an
18 environmental risk. As a recent example, a commercial customer disposed
19 of floor stripper through a drain introducing the chemical into the wastewater
20 treatment facility, severely hampering the biological nutrient removal
21 process, and fouling the membrane filtration units. Though CWSNC staff

1 obtained proof of the discharge, the Company has no enforcement authority
2 to hold them responsible for the financial and environmental impact.³

3 **Q. WHAT REGULATORY TOOLS DOES THE COMPANY REQUIRE TO**
4 **ADDRESS THESE ISSUES?**

5 A. CWSNC submits for filing the Sewer Use Rule, appended to my testimony
6 as Schedule F-6 to Appendix 7, and requests the Commission to approve
7 it. Approval of the rule allows the Company to require cooperation and
8 compliance among customers with the potential to cause the kind of
9 damage described, and it gives CWSNC an enforcement mechanism in the
10 form of disconnect. Second, CWSNC files and requests approval of a tariff
11 which addresses the Sewer Use Rule which authorizes disconnection of
12 service for failure to comply with the terms of the rules on disconnection of
13 service pursuant to Rule R10-16.

14 **Q. IS THIS TESTIMONY TRUE AND ACCURATE TO THE BEST OF YOUR**
15 **KNOWLEDGE, INFORMATION, AND BELIEF?**

16 A. Yes.

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

³ These requirements are similar to those placed upon certain Publicly Owned Treatment Works by the federal requirements of 40 C.F.R. § 403 and the North Carolina requirements of 15A NCAC 02H.0900. Investor-owned utilities, however, are not subject to these requirements.

1 A. Yes, it does. However, I reserve the right to update or amend this testimony
2 upon receipt of additional relevant data or other information that may
3 become available.

1 MR. ALSON: Thank you, Commissioner.
2 The Company calls Dylan D'Ascendis to
3 the stand.

4 COMMISSIONER CLODFELTER: Good
5 afternoon, Mr. D'Ascendis. Would you put your left
6 hand on the Bible and raise your right hand.
7 Whereupon,

8 DYLAN D'ASCENDIS,
9 having first been duly sworn, was examined
10 and testified as follows:

11 COMMISSIONER CLODFELTER: Please be
12 seated, sir.

13 Mr. Alson.

14 MR. ALSON: Thank you, Commissioner.
15 (CWSNC D'Ascendis Exhibit 1, CWSNC
16 D'Ascendis Appendix A, and CWSNC
17 D'Ascendis Rebuttal Exhibit 1 were
18 identified and admitted into evidence.)
19 (Whereupon, the prefiled direct
20 testimony, prefiled direct summary,
21 prefiled rebuttal testimony, and
22 prefiled rebuttal summary of
23 Dylan D'Ascendis were copied into the
24 record as if given orally from the

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1 **I. INTRODUCTION AND PURPOSE**

2 **Q. PLEASE STATE YOUR NAME, AFFILIATION, AND BUSINESS**
3 **ADDRESS.**

4 A. My name is Dylan W. D'Ascendis. I am employed by ScottMadden, Inc. as
5 a Partner. My business address is 3000 Atrium Way, Suite 200, Mount
6 Laurel, NJ 08054.

7 **Q. ON WHOSE BEHALF ARE YOU SUBMITTING THIS TESTIMONY?**

8 A. I am submitting this direct testimony (referred to throughout as my "Direct
9 Testimony") before the North Carolina Utilities Commission ("NCUC" or the
10 "Commission") on behalf of the Carolina Water Service of North Carolina
11 ("CWSNC" or the "Company").

12 **Q. PLEASE SUMMARIZE YOUR PROFESSIONAL EXPERIENCE AND**
13 **EDUCATIONAL BACKGROUND.**

14 A. I have offered expert testimony on behalf of investor-owned utilities in over
15 30 state regulatory commissions in the United States, the Federal Energy
16 Regulatory Commission, the Alberta Utility Commission, an American
17 Arbitration Association panel, and the Superior Court of Rhode Island on
18 issues including, but not limited to, common equity cost rate, rate of return,
19 valuation, capital structure, class cost of service, and rate design.

20 On behalf of the American Gas Association ("AGA"), I calculate the
21 AGA Gas Index, which serves as the benchmark against which the

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1 performance of the American Gas Index Fund (“AGIF”) is measured on a
2 monthly basis. The AGA Gas Index and AGIF are a market capitalization
3 weighted index and mutual fund, respectively, comprised of the common
4 stocks of the publicly traded corporate members of the AGA.

5 I am a member of the Society of Utility and Regulatory Financial
6 Analysts (“SURFA”). In 2011, I was awarded the professional designation
7 “Certified Rate of Return Analyst” by SURFA, which is based on education,
8 experience, and the successful completion of a comprehensive written
9 examination.

10 I am also a member of the National Association of Certified Valuation
11 Analysts (“NACVA”) and was awarded the professional designation
12 “Certified Valuation Analyst” by the NACVA in 2015.

13 I am a graduate of the University of Pennsylvania, where I received
14 a Bachelor of Arts degree in Economic History. I have also received a
15 Master of Business Administration with high honors and concentrations in
16 Finance and International Business from Rutgers University.

17 The details of my educational background and expert witness
18 appearances are included in Appendix A.

19 **Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?**

20 A. The purpose of my Direct Testimony is to present evidence on behalf of
21 CWSNC and recommend a weighted average cost of capital (“WACC”) to

1 be used in setting rates in this proceeding. My testimony first provides a
2 summary of financial theory and regulatory principles pertinent to the
3 development of the recommended cost of capital. I then present evidence
4 and analysis on: (1) the appropriate capital structure, (2) the appropriate
5 cost of long-term debt, and (3) the appropriate return on common equity
6 (“ROE”) the Company should be given the opportunity to earn on its
7 jurisdictional rate base, which will be applied for the duration of its Water
8 and Sewer Investment Plan (“WSIP”). My testimony concludes with a
9 discussion of the current capital market environment in North Carolina and
10 how it influences cost of capital issues in this proceeding.

11 **Q. HAVE YOU PREPARED AN EXHIBIT IN SUPPORT OF YOUR**
12 **RECOMMENDATION?**

13 A. Yes. I have prepared Exhibit No. 1, which contains Schedules DWD-1
14 through DWD-8, and has been prepared by me or under my direct
15 supervision.

16 **Q. WHAT IS YOUR RECOMMENDATION REGARDING THE WACC FOR**
17 **CWSNC?**

18 A. Since the WSIP is a four-year program consisting of the Base Year (“BY”),
19 and three Forecasted Test Years (“FY1”, “FY2” and “FY3”, respectively), I
20 have recommended four separate ranges of WACCs to be considered by
21 the Commission in this proceeding. My recommended capital structure

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1 consists of 50.00% long-term debt and 50.00% common equity and is based
 2 on the Company's Parent, CORIX Regulated Utilities, Inc.'s ("CRU") target
 3 capital structure for the duration of the WSIP. My recommended cost of
 4 long-term debt is 4.64%, which is the current 13-month average long-term
 5 debt cost rate of CRU at March 31, 2022, which is expected to not change
 6 over the duration of the WSIP. As for my recommended range of ROEs
 7 applicable to the Company, they vary slightly based on the changes in
 8 expected interest rates during the WSIP. The overall rate of returns for each
 9 period (the BY, FY1, FY2, and FY3) are summarized on page 1 of Schedule
 10 DWD-1 and in Tables 1a through 1d below:

11 **Table 1a: Summary of Overall Rate of Return – Base Year**

<u>Type of Capital</u>	<u>Ratios</u>	<u>Cost Rate</u>	<u>Weighted Cost Rate</u>
Long-Term Debt	50.00%	4.64%	2.32%
Common Equity	<u>50.00%</u>	9.95% - 10.95%	<u>4.97% - 5.47%</u>
Total	<u>100.00%</u>		<u>7.29% - 7.79%</u>

12 **Table 1b: Summary of Overall Rate of Return – Projected Year 1**

<u>Type of Capital</u>	<u>Ratios</u>	<u>Cost Rate</u>	<u>Weighted Cost Rate</u>
Long-Term Debt	50.00%	4.64%	2.32%
Common Equity	<u>50.00%</u>	10.17% - 11.17%	<u>5.08% - 5.58%</u>
Total	<u>100.00%</u>		<u>7.40% - 7.90%</u>

13 **Table 1c: Summary of Overall Rate of Return – Projected Year 2**

<u>Type of Capital</u>	<u>Ratios</u>	<u>Cost Rate</u>	<u>Weighted Cost Rate</u>
Long-Term Debt	50.00%	4.64%	2.32%
Common Equity	<u>50.00%</u>	10.13% - 11.13%	<u>5.07% - 5.57%</u>
Total	<u>100.00%</u>		<u>7.39% - 7.89%</u>

Table 1d: Summary of Overall Rate of Return – Projected Year 3

<u>Type of Capital</u>	<u>Ratios</u>	<u>Cost Rate</u>	<u>Weighted Cost Rate</u>
Long-Term Debt	50.00%	4.64%	2.32%
Common Equity	<u>50.00%</u>	10.24% - 11.24%	<u>5.12% - 5.62%</u>
Total	<u>100.00%</u>		<u>7.44% - 7.94%</u>

Given the ranges of ROEs presented in my analyses, the Company is requesting an ROE of 10.45% for the base period and an ROE of 10.70% for FYs 1 through 3.

II. SUMMARY**Q. PLEASE SUMMARIZE YOUR RECOMMENDED RANGES OF COMMON EQUITY COST RATES.**

A. My recommended ranges of common equity cost rates are summarized on page 2 of Schedule DWD-1. In determining my recommended ranges, I have assessed the market-based common equity cost rates of companies of relatively similar, but not necessarily identical, risk to CWSNC. Using companies of relatively comparable risk as proxies is consistent with the principles of fair rate of return established in the *Hope*¹ and *Bluefield*² cases. Of course, no proxy group can be identical in risk to any single company. Consequently, there must be an evaluation of relative risk between the Company and the proxy group to determine if it is appropriate to adjust the proxy group's indicated rate of return.

¹ *Federal Power Commission v. Hope Natural Gas Co.*, 320 U.S. 591 (1944) ("Hope").

² *Bluefield Water Works Improvement Co. v. Public Service Commission*, 262 U.S. 679 (1922) ("Bluefield")

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1 My recommendation results from the application of several cost of
 2 common equity models, specifically the Discounted Cash Flow (“DCF”)
 3 model, the Risk Premium Model (“RPM”), and the Capital Asset Pricing
 4 Model (“CAPM”), to the market data of the Utility Proxy Group whose
 5 selection criteria will be discussed below. In addition, I also applied these
 6 same models to a Non-Price Regulated Proxy Group.

7 The results derived from these analyses are as follows:

8 **Table 2: Summary of Common Equity Cost Rates**

	Using Current Interest Rates	Using Projected 2023 Interest Rates	Using Projected 2024 Interest Rates	Using Projected 2025 Interest Rates
Discounted Cash Flow Model	9.37%	9.37%	9.37%	9.37%
Risk Premium Model	11.12%	11.76%	11.69%	11.90%
Capital Asset Pricing Model	11.32%	11.68%	11.66%	11.79%
Market Models Applied to Comparable Risk, Non-Price Regulated Companies	<u>11.20%</u>	<u>11.54%</u>	<u>11.49%</u>	<u>11.49%</u>
Indicated Range of Common Equity Cost Rates Before Adjustments for Company-Specific Risk	9.85% - 10.85%	10.07% - 11.07%	10.03% - 11.03%	10.14% - 11.14%
Size Adjustment	0.10%	0.10%	0.10%	0.10%
Indicated Range of Common Equity Cost Rates after Adjustment	<u>9.95% - 10.95%</u>	<u>10.17% - 11.17%</u>	<u>10.13% - 11.13%</u>	<u>10.24% - 11.24%</u>

9 The indicated ranges for each year are equal to 50-basis points
 10 above and below the midpoint of my four model results. Because, as
 11

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1 mentioned previously, no individual company can be identical in risk to a
2 proxy group, I conducted a relative risk analysis between the Company and
3 the Utility Proxy Group. As a result of that analysis, the indicated range of
4 common equity cost rates applicable to the Utility Proxy Group was adjusted
5 upward by 0.10% to reflect CWSNC's smaller size relative to the Utility
6 Proxy Group. This adjustment to the Utility Proxy Group-specific ROE
7 ranges result in Company-specific ranges of common equity cost rates as
8 shown on Table 2 above, which I recommend the Commission consider in
9 its determination of the ROE for the Company in this proceeding. As noted
10 above, the Company is requesting an ROE of 10.45% for the base period
11 and an ROE of 10.70% for FYs 1 through 3 for WSIP purposes.

12 **Q. PLEASE SUMMARIZE YOUR RECOMMENDATION WITH RESPECT TO**
13 **THE COMPANY'S CAPITAL STRUCTURE.**

14 A. As briefly mentioned above, I recommend a capital structure including
15 50.00% long-term debt and 50.00% common equity. This represents the
16 Company's target capital structure throughout the duration of the WSIP.

17 **Q. PLEASE SUMMARIZE YOUR RECOMMENDATION WITH RESPECT TO**
18 **THE COMPANY'S COST OF LONG-TERM DEBT.**

19 A. I recommend a cost of long-term debt of 4.64% for the duration of the WSIP.
20 The Company's proposed cost of long-term debt is its current 13-month
21 average long-term debt cost rate ending March 31, 2022.

1 **Q. HOW IS THE REMAINDER OF YOUR DIRECT TESTIMONY**
2 **ORGANIZED?**

- 3 • Section III – Provides a summary of financial theory and regulatory
4 principles pertinent to the development of the cost of capital;
- 5 • Section IV – Explains my selection of the Utility Proxy Group used to
6 develop my ROE analytical results;
- 7 • Section V – Explains the proposed capital structure;
- 8 • Section VI – Describes the analyses on which my ROE
9 recommendation is based;
- 10 • Section VII – Summarizes the ranges of ROEs applicable to the
11 Utility Proxy Group before adjustments to reflect the Company-
12 specific factors;
- 13 • Section VIII – Explains my adjustment to the ranges of ROEs
14 applicable to the Utility Proxy Group to reflect the Company's smaller
15 relative size;
- 16 • Section IX – Discusses the economic conditions in North Carolina;
17 and
- 18 • Section X – Presents my conclusions.

1 **III. GENERAL PRINCIPLES**

2 **Q. WHAT GENERAL PRINCIPLES HAVE YOU CONSIDERED IN ARRIVING**
3 **AT YOUR RECOMMENDED RANGES OF ROES?**

4 A. In unregulated industries, marketplace competition is the principal
5 determinant of the price of products or services. For regulated public
6 utilities, regulation must act as a substitute for marketplace competition.
7 Assuring that the utility can fulfill its obligations to the public, while providing
8 safe and reliable service at all times, requires a level of earnings sufficient
9 to maintain the integrity of presently invested capital. Sufficient earnings
10 also permit the attraction of needed new capital at a reasonable cost, for
11 which the utility must compete with other firms of comparable risk,
12 consistent with the fair rate of return standards established by the U.S.
13 Supreme Court in the previously cited *Hope* and *Bluefield* cases.

14 The U.S. Supreme Court affirmed the fair rate of return standards in
15 *Hope* when it stated:

16 *The rate-making process under the Act, i.e., the fixing of 'just*
17 *and reasonable' rates, involves a balancing of the investor*
18 *and the consumer interests. Thus we stated in the Natural*
19 *Gas Pipeline Co. case that 'regulation does not insure that the*
20 *business shall produce net revenues.' 315 U.S. at page 590,*
21 *62 S.Ct. at page 745. But such considerations aside, the*
22 *investor interest has a legitimate concern with the financial*
23 *integrity of the company whose rates are being regulated.*
24 *From the investor or company point of view it is important that*
25 *there be enough revenue not only for operating expenses but*
26 *also for the capital costs of the business. These include*
27 *service on the debt and dividends on the stock. Cf. Chicago*
28 *& Grand Trunk R. Co. v. Wellman, 143 U.S. 339, 345, 346 12*

Direct Testimony of Dylan W. D'Ascendis

1 *S.Ct. 400,402. By that standard the return to the equity owner*
2 *should be commensurate with returns on investments in other*
3 *enterprises having corresponding risks. That return,*
4 *moreover, should be sufficient to assure confidence in the*
5 *financial integrity of the enterprise, so as to maintain its credit*
6 *and to attract capital.*³

7
8 In summary, the U.S. Supreme Court has found a return that is
9 adequate to attract capital at reasonable terms enables the utility to provide
10 service while maintaining its financial integrity. As discussed above, and in
11 keeping with established regulatory standards, that return should be
12 commensurate with the returns expected elsewhere for investments of
13 equivalent risk. The Commission's decision in this proceeding, therefore,
14 should provide the Company with the opportunity to earn a return that is: (1)
15 adequate to attract capital at reasonable cost and terms; (2) sufficient to
16 ensure their financial integrity; and (3) commensurate with returns on
17 investments in enterprises having corresponding risks.

18 Lastly, the required return for a regulated public utility is established
19 on a stand-alone basis, i.e., for the utility operating company at issue in a
20 rate case. Parent entities, like other investors, have capital constraints and
21 must look at the attractiveness of the expected risk-adjusted return of each
22 investment alternative in their capital budgeting process. That is, utility
23 holding companies that own many utility operating companies have choices
24 as to where they will invest their capital within the holding company family.

³ *Hope*, 320 U.S. 591 (1944), at 603.

1 Therefore, the opportunity cost concept applies regardless of the source of
2 the funding, public funding or corporate funding.

3 When funding is provided by a parent entity, the return still must be
4 sufficient to provide an incentive to allocate equity capital to the subsidiary
5 or business unit rather than other internal or external investment
6 opportunities. That is, the regulated subsidiary must compete for capital
7 with all the parent company's affiliates, and with other, similarly situated
8 utility companies. In that regard, investors value corporate entities on a
9 sum-of-the-parts basis and expect each division within the parent company
10 to provide an appropriate risk-adjusted return.

11 It therefore is important that the authorized ROE reflects the risks
12 and prospects of the utility's operations and supports the utility's financial
13 integrity from a stand-alone perspective as measured by their combined
14 business and financial risks. Consequently, the ROE authorized in this
15 proceeding should be sufficient to support the operational (i.e., business
16 risk) and financing (i.e., financial risk) of the Company's utility operations on
17 a stand-alone basis. In unregulated industries, the competition of the
18 marketplace is the principal determinant of the price of products or services.
19 For regulated public utilities, regulation must act as a substitute for
20 marketplace competition. Assuring that the utility can fulfill its obligations to
21 the public, while providing safe and reliable service at all times, requires a

1 level of earnings sufficient to maintain the integrity of presently invested
2 capital. Sufficient earnings also permit the attraction of needed new capital
3 at a reasonable cost, for which the utility must compete with other firms of
4 comparable risk, consistent with the fair rate of return standards established
5 by the U.S. Supreme Court in the previously cited *Hope* and *Bluefield*
6 decisions. Consequently, marketplace data must be relied on in assessing
7 a common equity cost rate appropriate for ratemaking purposes. Just as
8 the use of the market data for the proxy group adds reliability to the informed
9 expert's judgment used in arriving at a recommended common equity cost
10 rate, the use of multiple, generally accepted common equity cost rate
11 models also adds reliability and accuracy when arriving at a recommended
12 common equity cost rate.

13 **Q. PLEASE DEFINE BUSINESS RISK AND EXPLAIN WHY IT IS**
14 **IMPORTANT TO THE DETERMINATION OF A FAIR RATE OF RETURN.**

15 A. Regulated utilities primarily use common stock and long-term debt to
16 finance their permanent property, plant, and equipment (i.e., rate base).
17 The fair rate of return for a regulated utility is based on its WACC, in which,
18 as noted earlier, the costs of the individual sources of capital are weighted
19 by their respective book values.

20 The cost of capital is the return investors require to make an
21 investment in a firm. Investors will provide funds to a firm only if the return

1 that they *expect* is equal to, or greater than, the return that they *require* to
2 accept the risk of providing funds to the firm.

3 The cost of capital (that is, the combination of the costs of debt and
4 equity) is based on the economic principle of “opportunity costs.” Investing
5 in any asset (whether debt or equity securities) represents a forgone
6 opportunity to invest in alternative assets. For any investment to be
7 sensible, its expected return must be at least equal to the return expected
8 on alternative, comparable risk investment opportunities. Because
9 investments with like risks should offer similar returns, the opportunity cost
10 of an investment should equal the return available on an investment of
11 comparable risk.

12 Whereas the cost of debt is contractually defined and can be directly
13 observed as the interest rate or yield on debt securities, the cost of equity
14 must be estimated based on market data and various financial models.
15 Because the cost of equity is premised on opportunity costs, the models
16 used to determine it are typically applied to a group of “comparable” or
17 “proxy” companies.

18 In the end, the estimated cost of capital should reflect the return that
19 investors require in light of the subject company’s business and financial
20 risks, and the returns available on comparable investments.

1 **A. BUSINESS RISK**

2 **Q. PLEASE DEFINE BUSINESS RISK AND EXPLAIN WHY IT IS**
3 **IMPORTANT FOR DETERMINING A FAIR RATE OF RETURN.**

4 A. The investor-required return on common equity reflects investors'
5 assessment of the total investment risk of the subject firm. Total investment
6 risk is often discussed in the context of business and financial risk.

7 Business risk reflects the uncertainty associated with owning a
8 company's common stock without the company's use of debt and/or
9 preferred stock financing. One way of considering the distinction between
10 business and financial risk is to view the former as the uncertainty of the
11 expected earned return on common equity, assuming the firm is financed
12 with no debt.

13 Examples of business risks generally faced by utilities include, but
14 are not limited to, the regulatory environment, mandatory environmental
15 compliance requirements, customer mix and concentration of customers,
16 service territory economic growth, market demand, risks and uncertainties
17 of supply, operations, capital intensity, size, the degree of operating
18 leverage, emerging technologies including distributed energy resources,
19 the vagaries of weather, and the like, all of which have a direct bearing on
20 earnings.

21 Although analysts, including rating agencies, may categorize
22 business risks individually, as a practical matter, such risks are interrelated

1 and not wholly distinct from one another. When determining an appropriate
2 return on common equity, the relevant issue is where investors see the
3 subject company in relation to other similarly situated utility companies (i.e.,
4 the Utility Proxy Group). To the extent investors view a company as being
5 exposed to higher risk, the required return will increase, and vice versa.

6 For regulated utilities, business risks are both long-term and near-
7 term in nature. Whereas near-term business risks are reflected in year-to-
8 year variability in earnings and cash flow brought about by economic or
9 regulatory factors, long-term business risks reflect the prospect of an
10 impaired ability of investors to obtain both a fair rate of return on, and return
11 of, their capital. Moreover, because utilities accept the obligation to provide
12 safe, adequate and reliable service at all times (in exchange for a
13 reasonable opportunity to earn a fair return on their investment), they
14 generally do not have the option to delay, defer, or reject capital
15 investments. Because those investments are capital-intensive, utilities
16 generally do not have the option to avoid raising external funds. The
17 obligation to serve and the corresponding need to access capital is even
18 more acute during periods of capital market distress.

19 Because utilities invest in long-lived assets, long-term business risks
20 are of paramount concern to equity investors. That is, the risk of not
21 recovering the return on their investment extends far into the future. The

1 timing and nature of events that may lead to losses, however, also are
2 uncertain and, consequently, those risks and their implications for the
3 required return on equity tend to be difficult to quantify. Regulatory
4 commissions (like investors who commit their capital) must review a variety
5 of quantitative and qualitative data and apply their reasoned judgment to
6 determine how long-term risks weigh in their assessment of the market-
7 required return on common equity.

8 **Q. WHAT BUSINESS RISKS DO THE WATER AND WASTEWATER**
9 **INDUSTRIES FACE IN GENERAL?**

10 A. Water and wastewater utilities have an ever-increasing responsibility to be
11 stewards of the environment from which water supplies are drawn in order
12 to preserve and protect essential natural resources of the United States.
13 This increased environmental stewardship is a direct result of compliance
14 with the Safe Water Drinking Act, as well as a response to continuous
15 monitoring by the Environmental Protection Agency (“EPA”) and state and
16 local governments, of the water supply for potential contaminants and their
17 resultant regulations. This, plus aging infrastructure, necessitate additional
18 capital investment in the distribution and treatment of water, exacerbating
19 the pressure on free cash flows arising from increased capital expenditures
20 for infrastructure repair and replacement. The significant amount of capital

1 investment and, hence, high capital intensity, is a major risk factor for the
2 water and wastewater utility industry.

3 *Value Line Investment Survey* (“*Value Line*”) observes the following
4 about the water utility industry:

5 Prices of goods and services have increased
6 significantly over the past year. While this is not good
7 news for many entities, it is particularly bad for utilities.
8 Indeed, these companies have been allowed to
9 operate as a monopoly in their service areas, but in
10 return, they have agreed to let state regulators have
11 the final call on the prices customers are charged. For
12 more than the past decade, this hasn't been a problem
13 because inflation has been very tame. Since the
14 pandemic has disrupted everything from the labor
15 markets to the world's supply chains, (with a strong
16 assist from easy monetary and fiscal policy), costs
17 have spiked substantially. Thus, utilities are seeing
18 their expenses rise without a similar increase in clients
19 bills.

20 * * *

21 Each state has its own authority that deals with
22 requests for rate relief. In the recent past, regulators
23 and water utilities have had a relatively good working
24 relationship. With the nation's water infrastructure in
25 poor condition, members of this group have been
26 investing heavily in replacing pipelines that have been,
27 over 70 years old, in many instances. Recall that this
28 cooperation was achieved during an era of stable
29 prices. So, the authorities have not met with much
30 resistance from the general public, even though
31 customer bills have been increased at levels well
32 ahead of the inflation rate. This has been accepted
33 without much blowback because there has been
34 general agreement: For decades water rates were
35 artificially kept too low, which meant that insufficient

1 investment was made to modernize water
2 infrastructure.⁴

3 The water and wastewater industry also experiences low
4 depreciation rates. Depreciation rates are one of the principal sources of
5 internal cash flows for all utilities (through a utility's depreciation expense)
6 and are vital for a company to fund ongoing replacements and repairs of
7 water and wastewater systems. Water / wastewater utility assets have long
8 lives, and therefore have long capital recovery periods. As such, they face
9 greater risk due to inflation, which results in a higher replacement cost per
10 dollar of net plant.

11 Substantial capital expenditures, as noted by *Value Line*, will require
12 significant financing. The three sources of financing typically used are debt,
13 equity (common and preferred), and cash flow. All three are intricately
14 linked to the opportunity to earn a sufficient rate of return as well as the
15 ability to achieve that return. Consistent with *Hope* and *Bluefield*, the return
16 must be sufficient to maintain credit quality as well as enable the attraction
17 of necessary new capital, be it debt or equity capital. If unable to raise debt
18 or equity capital, the utility must turn to either retained earnings or free cash
19 flow,⁵ both of which are directly linked to earning a sufficient rate of return.
20 The level of free cash flow represents a utility's ability to meet the needs of

4 *Value Line Investment Survey*, (Apr. 8, 2022).

5 Free Cash Flow = Operating Cash Flow (Funds From Operations) minus Capital Expenditures.

1 its debt and equity holders. If either retained earnings or free cash flow is
2 inadequate, it will be nearly impossible for the utility to attract the needed
3 capital for new infrastructure investment necessary to ensure quality service
4 to its customers. An insufficient rate of return can be financially devastating
5 for utilities as well as a public safety issue for their customers.

6 The water and wastewater utility industry's high degree of capital
7 intensity and low depreciation rates, coupled with the need for substantial
8 infrastructure capital spending, require regulatory support in the form of
9 adequate and timely rate relief, and in particular, a sufficient authorized
10 return on common equity, so that the industry can successfully meet the
11 challenges it faces.

12 **B. FINANCIAL RISK**

13 **Q. PLEASE DEFINE FINANCIAL RISK AND EXPLAIN WHY IT IS**
14 **IMPORTANT IN DETERMINING A FAIR RATE OF RETURN.**

15 A. Financial risk is the additional risk created by the introduction of debt and
16 preferred stock into the capital structure. The higher the proportion of debt
17 and preferred stock in the capital structure, the higher the financial risk to
18 common equity owners (i.e., failure to receive dividends due to default or
19 other covenants). Therefore, consistent with the basic financial principle of
20 risk and return, common equity investors require higher returns as
21 compensation for bearing higher financial risk.

1 **Q. CAN BOND AND CREDIT RATINGS BE A PROXY FOR A FIRM'S**
2 **COMBINED BUSINESS AND FINANCIAL RISKS TO EQUITY OWNERS**
3 **(I.E., INVESTMENT RISK)?**

4 A. Yes, similar bond ratings/issuer credit ratings reflect, and are representative
5 of, similar combined business and financial risks (i.e., total risk) faced by
6 bond investors.⁶ Although specific business or financial risks may differ
7 between companies, the same bond/credit rating indicates that the
8 combined risks are roughly similar from a debtholder perspective. The
9 caveat is that these debtholder risk measures do not translate directly to
10 risks for common equity.

11 **IV. CWSNC AND THE UTILITY PROXY GROUP**

12 **Q. WHY IS IT NECESSARY TO DEVELOP A PROXY GROUP WHEN**
13 **ESTIMATING THE ROE FOR THE COMPANY?**

14 A. Because the Company is not publicly traded and does not have publicly
15 traded equity securities, it is necessary to develop groups of publicly traded,
16 comparable companies to serve as "proxies" for the Company. In addition
17 to the analytical necessity of doing so, the use of proxy companies is
18 consistent with the *Hope* and *Bluefield* comparable risk standards, as
19 discussed above. I have selected two proxy groups that, in my view, are

⁶ Risk distinctions within S&P's bond rating categories are recognized by a plus or minus, i.e., within the A category, an S&P rating can be at A+, A, or A-. Similarly, risk distinctions for Moody's ratings are distinguished by numerical rating gradations, i.e., within the A category, a Moody's rating can be A1, A2 and A3.

1 fundamentally risk-comparable to the Company: A Utility Proxy Group and
2 a Non-Price Regulated Proxy Group, which is comparable in total risk to the
3 Utility Proxy Group.⁷

4 Even when proxy groups are carefully selected, it is common for
5 analytical results to vary from company to company. Despite the care taken
6 to ensure comparability, because no two companies are identical, market
7 expectations regarding future risks and prospects will vary within the proxy
8 group. It therefore is common for analytical results to reflect a seemingly
9 wide range, even for a group of similarly situated companies. At issue is
10 how to estimate the ROE from within that range. That determination will be
11 best informed by employing a variety of sound analyses and necessarily
12 must consider the sort of quantitative and qualitative information discussed
13 throughout my Direct Testimony. Additionally, a relative risk analysis
14 between the Company and the Utility Proxy Group must be made to
15 determine whether or not explicit Company-specific adjustments need to be
16 made to the Utility Proxy Group's indicated results.

17 My analyses are based on the Utility Proxy Group, containing U.S.
18 water utilities. As discussed earlier, utilities must compete for capital with
19 other companies with commensurate risk (including non-utilities) and, to do
20 so, must be provided the opportunity to earn a fair and reasonable return.

⁷ The development of the Non-Price Regulated Proxy Group is explained in more detail in Section VII.

1 Consequently, it is appropriate to consider the Utility Proxy Group's market
2 data in determining the Company's ROE.

3 **Q. ARE YOU FAMILIAR WITH THE OPERATIONS OF CWSNC?**

4 A. Yes. CWSNC is an operating subsidiary of CRU. The Company provides
5 water and wastewater service to approximately 56,000 residential and
6 commercial customers in North Carolina.⁸ CWSNC's common stock is not
7 publicly traded.

8 **Q. PLEASE EXPLAIN HOW YOU CHOSE THE COMPANIES IN THE**
9 **UTILITY PROXY GROUP.**

10 A. Because the cost of equity is a comparative exercise, my objective in
11 developing a proxy group was to select companies that are comparable to
12 the Company. Because the Company is a 100% rate-regulated water utility,
13 I applied the following criteria to select my Utility Proxy Group:

- 14 (i) They were included in the Water Utility Group of *Value Line's*
15 Standard Edition (April 8, 2022);
- 16 (ii) They have 60% or greater of fiscal year 2021 total operating income
17 derived from, or 60% or greater of fiscal year 2021 total assets
18 attributable to, regulated water utility operations;
- 19 (iii) At the time of preparation of this testimony, they had not publicly
20 announced that they were involved in any major merger or

⁸ Company provided.

- 1 acquisition activity (i.e., one publicly-traded utility merging with or
2 acquiring another) or any other major development;
- 3 (iv) They have not cut or omitted their common dividends during the five
4 years ended 2021 or through the time of preparation of this
5 testimony;
- 6 (v) They have *Value Line* and Bloomberg Professional Services
7 (“Bloomberg”) adjusted Beta coefficients (“beta”);
- 8 (vi) They have positive *Value Line* five-year dividends per share (“DPS”)
9 growth rate projections; and
- 10 (vii) They have *Value Line*, Zacks, or Yahoo! Finance consensus five-
11 year earnings per share (“EPS”) growth rate projections.

12 The following seven companies met these criteria: American States
13 Water Co., American Water Works Co., Inc., California Water Service
14 Group, Essential Utilities, Inc., Middlesex Water Co., SJW Corp., and The
15 York Water Co.

16 **Q. PLEASE SUMMARIZE THE UTILITY PROXY GROUP’S HISTORICAL**
17 **CAPITALIZATION AND FINANCIAL STATISTICS.**

18 A. Page 1 of Schedule DWD-2 contains comparative capitalization and
19 financial statistics for the Utility Proxy Group identified above for the years
20 2017 to 2021.

1 During the five-year period ending 2021, the historically achieved
2 average earnings rate on book common equity for the group averaged
3 10.53%. The average common equity ratio based on total permanent
4 capital (excluding short-term debt) was 52.31%, and the average dividend
5 payout ratio was 59.66%.

6 Total debt to earnings before interest, taxes, depreciation, and
7 amortization for the years 2017 to 2021 ranges between 3.42 and 5.57
8 times, with an average of 4.70 times. Funds from operations to total debt
9 range from 11.66% to 22.87%, with an average of 16.51%.

10 **V. CAPITAL STRUCTURE**

11 **Q. HOW DOES THE CAPITAL STRUCTURE AFFECT THE RATE OF**
12 **RETURN?**

13 A. As discussed above, there are two general categories of risk: business risk
14 and financial risk. The capital structure relates to a company's financial risk,
15 which represents the risk that a company may not have adequate cash
16 flows to meet its financial obligations, and is a function of the percentage of
17 debt (or financial leverage) in its capital structure. In that regard, as the
18 percentage of debt in the capital structure increases, so do the fixed
19 obligations for the repayment of that debt. Consequently, as the degree of
20 financial leverage increases, the risk of financial distress (i.e., financial risk)

1 also increases.⁹ In essence, even if two firms face the same business risks,
 2 a company with meaningfully higher levels of debt in its capital structure is
 3 likely to have a higher cost of both debt and equity. Since the capital
 4 structure can affect the subject company's overall level of risk, it is an
 5 important consideration in establishing a just and reasonable rate of return.

6 **Q. IS THERE SUPPORT FOR THE PROPOSITION THAT THE CAPITAL**
 7 **STRUCTURE IS A KEY CONSIDERATION IN ESTABLISHING AN**
 8 **APPROPRIATE RATE OF RETURN?**

9 A. Yes. The Supreme Court and various utility commissions have long
 10 recognized the role of capital structure in the development of a just and
 11 reasonable rate of return for a regulated utility. In particular, a utility's
 12 leverage, or debt ratio, has been explicitly recognized as an important
 13 element in determining a just and reasonable rate of return:

14 *Although the determination of whether bonds or stocks should*
 15 *be issued is for management, the matter of debt ratio is not*
 16 *exclusively within its province. Debt ratio substantially affects*
 17 *the manner and cost of obtaining new capital. It is therefore*
 18 *an important factor in the rate of return and must necessarily*
 19 *be considered by and come within the authority of the body*
 20 *charged by law with the duty of fixing a just and reasonable*
 21 *rate of return.*¹⁰

⁹ Roger A. Morin, Modern Regulatory Finance, Public Utility Reports, Inc., 2020, at 51-52. ("Morin")

¹⁰ *New England Telephone & Telegraph Co. v. State*, 98 N.H. 211, 97 A.2d 213, (1953), citing *New England Tel. & Tel. Co. v. Department of Pub. Util.*, (Mass.) 327 Mass. 81, 97 N.E. 2d 509, 514; *Petitions of New England Tel. & Tel. Co.* 116 Vt. 480, 80 A2d 671, at 6.

1 Perhaps ultimate authority for balancing the issues of cost and
2 financial integrity is found in the Supreme Court's statement in *Hope*:

3 *The rate-making process under the Act, i.e., the fixing of "just*
4 *and reasonable' rates, involves a balancing of the investor*
5 *and the consumer interests.*¹¹

6 And as the U.S. Court of Appeals, District of Columbia Circuit found
7 in *Communications Satellite Corp. et. al. v. FCC*:

8 *The equity investor's stake is made less secure as the*
9 *company's debt rises, but the consumer rate-payer's burden*
10 *is alleviated.*¹²

11 That is, the U.S. Court of Appeals, District of Columbia Circuit found
12 that because there is a relationship between the capital structure and the
13 cost of equity, investor and consumer interests must be balanced.
14 Consequently, the principles of fairness and reasonableness with respect
15 to the allowed rate of return and capital structure are considered at both the
16 federal and state levels.

17 **Q. WHAT CAPITAL STRUCTURE RATIOS DO YOU RECOMMEND BE**
18 **EMPLOYED IN DEVELOPING AN OVERALL FAIR RATE OF RETURN**
19 **FOR THE COMPANY?**

20 A. I recommend the use of CRU's target capital structure, which consists of
21 50.00% long-term debt and 50.00% common equity as shown on page 1 of

¹¹ *Federal Power Commission v. Hope Natural Gas Co.*, 320 U.S., at 603 (1944).

¹² *Communications Satellite Corp. et. al. v. FCC*, 198 U.S. App. D.C. 60, 63-64, 611 F.2d

1 Schedule DWD-1 to be used as CWSNC's ratemaking capital structure in
2 this proceeding.

3 **Q. HOW DOES CWSNC'S TARGET RATEMAKING COMMON EQUITY**
4 **RATIO OF 50.00% COMPARE WITH THE EQUITY RATIOS**
5 **MAINTAINED BY THE COMPANIES IN YOUR UTILITY PROXY GROUP?**

6 A. CWSNC's ratemaking common equity ratio of 50.00% is reasonable and
7 consistent with the range of common equity ratios maintained, on average,
8 by the companies in the Utility Proxy Group on which I base my
9 recommended common equity cost rate. As shown on page 2 of Schedule
10 DWD-2, the common equity ratios of the Utility Proxy Group range from
11 40.31% to 62.44% in 2021. In my opinion, CWSNC's ratemaking equity
12 ratio of 50.00% falls within a reasonable range.

13 **Q. WHAT LONG-TERM DEBT COST RATE IS MOST APPROPRIATE FOR**
14 **CWSNC IN THIS PROCEEDING?**

15 A. CRU's 13-month average long-term debt cost rate of 4.64% is reasonable
16 and appropriate as CWSNC's cost of long-term debt in this proceeding.

17 **VI. COMMON EQUITY COST RATE MODELS**

18 **Q. IS IT IMPORTANT THAT COST OF COMMON EQUITY MODELS BE**
19 **MARKET BASED?**

20 A. Yes. As discussed previously, regulated public utilities, like the Company,
21 must compete for equity in capital markets along with all other companies

1 with commensurate risk, including non-utilities. The cost of common equity
2 is thus determined based on equity market expectations for the returns of
3 those companies. If an individual investor is choosing to invest their capital
4 among companies with comparable risk, they will choose the company
5 providing a higher return over a company providing a lower return.

6 **Q. ARE THE COST OF COMMON EQUITY MODELS YOU USE MARKET-**
7 **BASED MODELS?**

8 A. Yes. The DCF model is market-based in that market prices are used in
9 developing the dividend yield component of the model. The RPM and
10 CAPM are also market-based in that the bond/issuer ratings and expected
11 bond yields/risk-free rate used in the application of the RPM and CAPM
12 reflect the market's assessment of bond/credit risk. In addition, the use of
13 the beta to determine the equity risk premium also reflects the market's
14 assessment of market/systematic risk, as betas are derived from regression
15 analyses of market prices. Moreover, market prices are used in the
16 development of the monthly returns and equity risk premiums used in the
17 Predictive Risk Premium Model ("PRPM"). Selection criteria for the Non-
18 Price Regulated Proxy Group are based on regression analyses of market
19 prices and reflect the market's assessment of total risk.

1 **Q. WHAT ANALYTICAL APPROACHES DID YOU USE TO DETERMINE**
2 **THE COMPANY'S ROE?**

3 A. As discussed earlier, I have relied on the DCF model, the RPM, and the
4 CAPM, which I applied to the Utility Proxy Group described above. I also
5 applied these same models to a Non-Price Regulated Proxy Group
6 described later in this section.

7 I rely on these models because reasonable investors use a variety
8 of tools and do not rely exclusively on a single source of information or
9 single model. Moreover, the models on which I rely focus on different
10 aspects of return requirements, and provide different insights to investors'
11 views of risk and return. The DCF model, for example, estimates the
12 investor-required return assuming a constant expected dividend yield and
13 growth rate in perpetuity, while Risk Premium-based methods (i.e., the RPM
14 and CAPM approaches) provide the ability to reflect investors' views of risk,
15 future market returns, and the relationship between interest rates and the
16 cost of equity. Just as the use of market data for the Utility Proxy Group
17 adds the reliability necessary to inform expert judgment in arriving at a
18 recommended common equity cost rate, the use of multiple generally
19 accepted common equity cost rate models also adds reliability and accuracy
20 when arriving at a recommended common equity cost rate.

1 **A. DISCOUNTED CASH FLOW MODEL**

2 **Q. PLEASE GIVE A GENERAL DESCRIPTION OF THE DCF MODEL.**

3 A. The theory underlying the DCF model is that the present value of an
4 expected future stream of net cash flows during the investment holding
5 period can be determined by discounting those cash flows at the cost of
6 capital, or the investors' capitalization rate. DCF theory indicates that an
7 investor buys a stock for an expected total return rate, which is derived from
8 the cash flows received from dividends and market price appreciation.
9 Mathematically, the expected dividend yield on market price plus a growth
10 rate equals the capitalization rate; i.e., the total common equity return rate
11 expected by investors, as shown in Equation [1] below:

12
$$K_e = (D_0 (1+g))/P + g$$

13 where:

14 K_e = the required Return on Equity;
15 D_0 = the annualized Dividend Per Share;
16 P = the current stock price; and
17 g = the growth rate.

18 **Q. WHICH VERSION OF THE DCF MODEL DID YOU USE?**

19 A. I used the single-stage constant growth DCF model.

1 **Q. PLEASE DESCRIBE THE DIVIDEND YIELD YOU USED IN YOUR**
2 **APPLICATION OF THE DCF MODEL.**

3 A. The unadjusted dividend yields are based on the proxy companies'
4 dividends as of May 13, 2022 divided by the average of closing market
5 prices for the 60 trading days ending May 13, 2022.¹³

6 **Q. PLEASE EXPLAIN YOUR ADJUSTMENT TO THE DIVIDEND YIELD.**

7 A. Because dividends are paid periodically (e.g., quarterly), as opposed to
8 continuously (daily), an adjustment must be made to the dividend yield.
9 This is often referred to as the discrete, or the Gordon Periodic, version of
10 the DCF model.

11 DCF theory calls for the use of the full growth rate, or D_1 , in
12 calculating the dividend yield component of the model. Since the various
13 companies in the Utility Proxy Group increase their quarterly dividend at
14 various times during the year, a reasonable assumption is to reflect one-
15 half the annual dividend growth rate in the dividend yield component, or
16 $D_{1/2}$. Because the dividend should be representative of the next 12-month
17 period, my adjustment is a conservative approach that does not overstate
18 the dividend yield. Therefore, the actual average dividend yields in Column
19 1 on page 1 of Schedule DWD-3 have been adjusted upward to reflect one-
20 half the average projected growth rate shown in Column 5.

¹³ See, Schedule DWD-3, page 1, Column 1.

1 **Q. PLEASE EXPLAIN THE BASIS OF THE GROWTH RATES YOU**
2 **APPLIED TO THE UTILITY PROXY GROUP IN YOUR DCF MODEL.**

3 A. Investors with more limited resources than institutional investors are likely
4 to rely on widely available financial information services, such as *Value*
5 *Line*, Zacks, and Yahoo! Finance. Investors realize that analysts have
6 significant insight into the dynamics of the industries and individual
7 companies they analyze, as well as companies' abilities to effectively
8 manage the effects of changing laws and regulations, and ever-changing
9 economic and market conditions. For these reasons, I used analysts' five-
10 year forecasts of EPS growth in my DCF analysis.

11 Over the long run, there can be no growth in DPS without growth in
12 EPS. Security analysts' earnings expectations have a more significant
13 influence on market prices than dividend expectations. Thus, using
14 projected earnings growth rates in a DCF analysis provides a better match
15 between investors' market price appreciation expectations and the growth
16 rate component of the DCF.

17 **Q. PLEASE SUMMARIZE THE CONSTANT GROWTH DCF MODEL**
18 **RESULTS.**

19 A. As shown on page 1 of Schedule DWD-3, the mean result of the application
20 of the single-stage DCF model is 9.03%, the median result is 9.71%, and
21 the average of the two is 9.37% for the Utility Proxy Group. In arriving at a

1 conclusion for the DCF-indicated common equity cost rate for the Utility
2 Proxy Group, I relied on an average of the mean and the median results
3 (i.e., 9.37%) of the DCF. By doing so, I have considered the DCF results
4 for each company without giving undue weight to outliers on either the high
5 or low side.

6 **B. THE RISK PREMIUM MODEL**

7 **Q. PLEASE DESCRIBE THE THEORETICAL BASIS OF THE RPM.**

8 A. The RPM is based on the fundamental financial principle of risk and return,
9 namely, that investors require greater returns for bearing greater risk. The
10 RPM recognizes that common equity capital has greater investment risk
11 than debt capital, as common equity shareholders are behind debt holders
12 in any claim on a company's assets and earnings. As a result, investors
13 require higher returns from common stocks than from investment in bonds,
14 to compensate them for bearing the additional risk.

15 While it is possible to directly observe bond returns and yields,
16 investors' required common equity return cannot be directly determined or
17 observed. According to RPM theory, one can estimate a common equity
18 risk premium over bonds (either historically or prospectively), and use that
19 premium to derive a cost rate of common equity. The cost of common equity
20 equals the expected cost rate for long-term debt capital, plus a risk premium
21 over that cost rate, to compensate common shareholders for the added risk

1 of being unsecured and last-in-line for any claim on the corporation's assets
2 and earnings upon liquidation.

3 **Q. PLEASE EXPLAIN HOW YOU DERIVED YOUR INDICATED COST OF**
4 **COMMON EQUITY BASED ON THE RPM.**

5 A. To derive my indicated cost of common equity under the RPM, I used two
6 risk premium methods. The first method was the PRPM and the second
7 method was a risk premium model using a total market approach. The
8 PRPM estimates the risk-return relationship directly, while the total market
9 approach indirectly derives a risk premium by using known metrics as a
10 proxy for risk.

11 **1. Predictive Risk Premium Model**

12 **Q. PLEASE EXPLAIN THE PRPM.**

13 A. The PRPM, published in the Journal of Regulatory Economics and The
14 Electricity Journal¹⁴, was developed from the work of Robert F. Engle who
15 shared the Nobel Prize in Economics in 2003 "for methods of analyzing
16 economic time series with time-varying volatility ("ARCH")".¹⁵ Engle found
17 that volatility changes over time and is related from one period to the next,

14 Autoregressive conditional heteroscedasticity. See Pauline M. Ahern, Frank J. Hanley and Richard A. Michelfelder, Ph.D., *A New Approach for Estimating the Equity Risk Premium for Public Utilities*, *The Journal of Regulatory Economics* (Dec. 2011), at 40:261-78 and Richard A. Michelfelder, Ph.D, Pauline M. Ahern, Dylan W. D'Ascendis, and Frank J. Hanley, *Comparative Evaluation of the Predictive Risk Premium Model, the Discounted Cash Flow Model and the Capital Asset Pricing Model for Estimating the Cost of Common Equity*, *The Electricity Journal* (May 2013), at 84-89.

15 www.nobelprize.org.

1 especially in financial markets. Engle discovered that the volatility in prices
2 and returns clusters over time and is therefore highly predictable and can
3 be used to predict future levels of risk and risk premiums. That is, historical
4 volatility can be used to predict future volatility, which then can be translated
5 to a predicted equity risk premium.

6 The PRPM estimates the risk-return relationship directly, as the
7 predicted equity risk premium is generated by the prediction of volatility or
8 risk. The PRPM is not based on an estimate of investor behavior, but rather
9 on the evaluation of the results of that behavior (i.e., the variance of
10 historical equity risk premiums).

11 The inputs to the model are the historical returns on the common
12 shares of each company in the Utility Proxy Group minus the historical
13 monthly yield on long-term U.S. Treasury securities through April 2022.
14 Using a generalized form of ARCH, known as GARCH, I calculated each
15 Utility Proxy Group company's projected equity risk premium using Eviews®
16 statistical software. When the GARCH Model is applied to the historical
17 return data, it produces a predicted GARCH variance series¹⁶ and a
18 GARCH coefficient¹⁷. Multiplying the predicted monthly variance by the
19 GARCH coefficient, then annualizing it¹⁸, produces the predicted annual

16 Illustrated on Columns 1 and 2 of pages 2, 3, 4, and 5 of Schedule DWD-4.

17 Illustrated on Column 4 of pages 2, 3, 4, and 5 of Schedule DWD-4.

18 Annualized Return = $(1 + \text{Monthly Return})^{12} - 1$.

1 equity risk premium for each company. I then added the representative risk-
 2 free rate¹⁹ to each company's PRPM-derived equity risk premium to arrive
 3 at indicated costs of common equity.

4 **Q. PLEASE DESCRIBE YOUR SELECTION OF RISK-FREE RATES OF**
 5 **RETURN.**

6 A. In order to reflect the time periods contemplated by the WSIP (i.e., BY, FY1,
 7 FY2, and FY3), I selected four risk-free rates consistent with projected risk-
 8 free rates during those years as shown in Table 3, below:

9 **Table 3: Representative Risk-Free Rates During WSIP**

Test Year	Time Frame	Source	Value
Base Year	YE 3/31/2022	Bloomberg	2.49%
Forecasted Year 1	YE 3/31/2023	<i>Blue Chip</i>	3.33%
Forecasted Year 2	YE 3/31/2024	<i>Blue Chip</i>	3.30%
Forecasted Year 3	YE 3/31/2025	<i>Blue Chip</i>	3.60%

10 For the BY, I used the three-month average²⁰ 30-year Treasury bond
 11 yield as reported by Bloomberg. For the prospective risk-free rates for FYs1
 12 through 3, I used the consensus forecast of 30-year Treasury bonds for
 13 each year (2023, 2024, and 2025) from *Blue Chip Financial Forecasts*
 14 ("*Blue Chip*").

19 See Column 6 of pages 2, 3, 4, and 5 of Schedule DWD-4.
 20 February – April 2022.

1 **Q. WHY DID YOU USE THE 30-YEAR TREASURY BOND YIELD AS YOUR**
2 **RISK-FREE RATE?**

3 A. I used the 30-year Treasury bond yield as my proxy for the risk-free rate
4 because the yield on long-term U.S. Treasury bonds is almost risk-free and
5 its term is consistent with the long-term cost of capital to public utilities
6 measured by the yields on Moody's Investor Service's ("Moody's") A2-rated
7 public utility bonds; the long-term investment horizon inherent in utilities'
8 common stocks; and the long-term life of the jurisdictional rate base to
9 which the allowed fair rate of return (i.e., cost of capital) will be applied. In
10 contrast, short-term U.S. Treasury yields are more volatile and largely a
11 function of Federal Reserve monetary policy.

12 More specifically, the term of the risk-free rate used for cost of capital
13 purposes should match the life (or duration) of the underlying investment
14 (i.e., perpetuity). As noted by Morningstar:

15 The traditional thinking regarding the time horizon of
16 the chosen Treasury security is that it should match the
17 time horizon of whatever is being valued. When
18 valuing a business that is being treated as a going
19 concern, the appropriate Treasury yield should be that
20 of a long-term Treasury bond. Note that the horizon is
21 a function of the investment, not the investor. If an
22 investor plans to hold stock in a company for only five
23 years, the yield on a five-year Treasury note would not
24 be appropriate since the company will continue to exist
25 beyond those five years.²¹

²¹ Morningstar, Inc., 2013 Ibbotson Stocks, Bonds, Bills and Inflation Valuation Yearbook,
at 44.

1 Morin also confirms this when he states:

2 [b]ecause common stock is a long-term investment and
3 because the cash flows to investors in the form of
4 dividends last indefinitely, the yield on very long-term
5 government bonds, namely, the yield on 30-year
6 Treasury bonds, is the best measure of the risk-free
7 rate for use in the CAPM (footnote omitted)... The
8 expected common stock return is based on long-term
9 cash flows, regardless of an individual's holding time
10 period.²²

11 Pratt and Grabowski recommend a similar approach to selecting the
12 risk-free rate: “[i]n theory, when determining the risk-free rate and the
13 matching ERP you should be matching the risk-free security and the ERP
14 with the period in which the investment cash flows are expected.”²³

15 **2. Total Market Approach Risk Premium Model**

16 **Q. PLEASE EXPLAIN THE TOTAL MARKET APPROACH RPM.**

17 A. The total market approach RPM adds a representative public utility bond
18 yield to an average of: (1) an equity risk premium that is derived from a beta-
19 adjusted total market equity risk premium, and (2) an equity risk premium
20 based on the S&P Utilities Index.

²² Morin, at 169.

²³ Shannon Pratt and Roger Grabowski, *Cost of Capital: Applications and Examples*, 3rd Ed. (Hoboken, NJ: John Wiley & Sons, Inc., 2008), at 92. “ERP” is the Equity Risk Premium.

1 **Q. PLEASE EXPLAIN HOW YOU DETERMINED THE REPRESENTATIVE**
2 **BOND YIELDS USED IN YOUR ANALYSIS.**

3 A. The first step in the total market approach RPM analysis is to determine the
4 representative bond yield. Consistent with the selection of my risk-free rate,
5 I relied on four different bond yields which reflect the four years the WSIP
6 will be in effect. For the BY, I started with the three-month average yield on
7 A2-rated public utility bonds.²⁴ Since the Utility Proxy Group's average
8 Moody's long-term issuer rating is A3, another adjustment to the A2-rated
9 public utility bond yield is needed to reflect the difference in bond ratings.
10 An upward adjustment of 0.10%, which represents one-third of a recent
11 spread between A2- and Baa2-rated public utility bond yields, is necessary
12 to make the A2-rated prospective bond yield applicable to an A3-rated
13 public utility bond.²⁵

14 For the prospective utility bond yields for FY1, FY2, and FY3, I used
15 the consensus forecast of Aaa-rated corporate bonds for each year (i.e.,
16 2023, 2024, and 2025) from *Blue Chip*. I then adjusted that yield by the
17 recent spread between Aaa-rated corporate bond yields and A2-rated
18 public utility yields, or 0.51%, as shown on Schedule DWD-4, page 7, and

²⁴ From February – April 2022.

²⁵ As shown on line 5 and explained in note 4, page 6 of Schedule DWD-4. Moody's does not provide public utility bond yields for A3-rated bonds. As such, it was necessary to estimate the difference between A2-rated and A3-rated public utility bonds. Because there are two steps between Baa2 and A3 (Baa2 to Baa1 and Baa1 to A3) I assumed an adjustment of one-third of the difference between the A2-rated and Baa2-rated public utility bond yield was appropriate.

1 by one-third of the recent spread between A2-rated and Baa2-rated public
 2 utility bonds, to reflect the average long-term bond rating of the Utility Proxy
 3 Group, as discussed previously. Representative bond yields for the Utility
 4 Proxy Group for the years encompassed by the WSIP are presented on
 5 page 6 of Schedule DWD-4 and Table 4, below:

6 **Table 4: Representative Utility Proxy Group Bond Yields During**
 7 **WSIP²⁶**

Test Year	Time Frame	Source	Value
Base Year	YE 3/31/2022	Bloomberg	4.09%
Forecasted Year 1	YE 3/31/2023	<i>Blue Chip</i>	5.06%
Forecasted Year 2	YE 3/31/2024	<i>Blue Chip</i>	4.81%
Forecasted Year 3	YE 3/31/2025	<i>Blue Chip</i>	5.11%

8 To develop the total market approach RPM estimate of the
 9 appropriate return on equity, these prospective bond yields are then added
 10 to the average of two different equity risk premiums, which I discuss in turn.

11 a. **Beta-Derived Equity Risk Premium**

12 **Q. PLEASE EXPLAIN HOW THE BETA-DERIVED EQUITY RISK PREMIUM**
 13 **IS DETERMINED.**

14 A. The components of the beta-derived risk premium model are: (1) an
 15 expected market equity risk premium over corporate bonds, and (2) the
 16 beta. The derivation of the beta-derived equity risk premium that I applied
 17 to the Utility Proxy Group is shown on lines 1 through 9 of page 11 of

²⁶ From page 6 of Schedule DWD-4.

1 Schedule DWD-4. The total beta-derived equity risk premium I applied was
2 based on an average of three historical market data-based equity risk
3 premiums, two *Value Line*-based equity risk premiums, and a Bloomberg-
4 based equity risk premium. Each of these is described below.

5 **Q. HOW DID YOU DERIVE A MARKET EQUITY RISK PREMIUM BASED**
6 **ON LONG-TERM HISTORICAL DATA?**

7 A. To derive a historical market equity risk premium, I used the most recent
8 holding period returns for the large company common stocks from the
9 Stocks, Bonds, Bills, and Inflation (“SBBI”) 2022 Yearbook (“SBBI –
10 2022”)²⁷ less the average historical yield on Moody’s Aaa/Aa-rated
11 corporate bonds for the period 1928 to 2021. Using holding period returns
12 over a very long period of time is appropriate because it is consistent with
13 the long-term investment horizon presumed by investing in a going concern,
14 i.e., a company expected to operate in perpetuity.

15 SBBI’s long-term arithmetic mean monthly total return rate on large
16 company common stocks was 12.11% and the long-term arithmetic mean
17 monthly yield on Moody’s Aaa/Aa-rated corporate bonds was 5.98% from
18 1928 to 2021.²⁸ As shown on line 1 of page 11 of Schedule DWD-4,
19 subtracting the mean monthly bond yield from the total return on large

27 See SBBI – 2022, at Appendix A Tables: Morningstar Stocks, Bonds, Bills, & Inflation 1926-2021.

28 As explained in note 1 on page 11 of Schedule DWD-4.

1 company stocks results in a long-term historical equity risk premium of
2 6.13%.

3 I used the arithmetic mean monthly total return rates for the large
4 company stocks, and yields (income returns) for the Moody's Aaa/Aa-rated
5 corporate bonds, because they are appropriate for the purpose of
6 estimating the cost of capital as noted in SBBI – 2022.²⁹ Using the arithmetic
7 mean return rates and yields is appropriate because historical total returns
8 and equity risk premiums provide insight into the variance and standard
9 deviation of returns needed by investors in estimating future risk when
10 making a current investment. If investors relied on the geometric mean of
11 historical equity risk premiums, they would have no insight into the potential
12 variance of future returns because the geometric mean relates the change
13 over many periods to a constant rate of change, thereby obviating the year-
14 to-year fluctuations, or variance, which is critical to risk analysis.

15 **Q. PLEASE EXPLAIN THE DERIVATION OF THE REGRESSION-BASED**
16 **MARKET EQUITY RISK PREMIUM.**

17 A. To derive the regression analysis-derived market equity risk premium
18 shown on line 2 of page 11 of Schedule DWD-4, I used the same monthly
19 annualized total returns on large company common stocks relative to the
20 monthly annualized yields on Moody's Aaa/Aa-rated corporate bonds as

²⁹ SBBI – 2022, at 201.

1 mentioned above. The relationship between interest rates and the market
2 equity risk premium was modeled using the observed monthly market equity
3 risk premium as the dependent variable, and the monthly yield on Moody's
4 Aaa/Aa-rated corporate bonds as the independent variable. I used a linear
5 Ordinary Least Squares ("OLS") regression, in which the market equity risk
6 premium is expressed as a function of the Moody's Aaa/Aa-rated corporate
7 bond yields:

$$8 \quad RP = \alpha + \beta (R_{Aaa/Aa})$$

9 Using the representative Aaa/Aa-rated corporate bond for each year
10 produced the applicable market equity risk premium as shown on line 2 of
11 page 11 of Schedule DWD-4.

12 **Q. HOW DID YOU CALCULATE THE REPRESENTATIVE AAA/AA-RATED**
13 **CORPORATE BOND YIELDS FOR YOUR ANALYSES?**

14 A. Similar to my determination for my risk-free rate and bond yields applicable
15 to the Utility Proxy Group, I used four separate bond yields, which reflect
16 the four years the WSIP will be in effect. For the BY, I started with the three-
17 month average yield on Aaa- and Aa2-rated corporate bonds from
18 Bloomberg.³⁰ For FY1, FY2, and FY3, I used the forecasted Aaa-rated
19 corporate bond yields from *Blue Chip* for 2023, 2024, and 2025,

³⁰ From February – April 2022.

1 respectively. The representative Aaa/Aa-rated corporate bond yields are
 2 presented in Table 5, below:

3 **Table 5: Representative Aaa- and Aa-Rated Average Bond Yields**
 4 **During WSIP**

Test Year	Time Frame	Source	Value
Base Year	YE 3/31/2022	Bloomberg	3.56%
Forecasted Year 1	YE 3/31/2023	<i>Blue Chip</i>	4.45%
Forecasted Year 2	YE 3/31/2024	<i>Blue Chip</i>	4.20%
Forecasted Year 3	YE 3/31/2025	<i>Blue Chip</i>	4.50%

5 **Q. PLEASE EXPLAIN THE DERIVATION OF A PRPM EQUITY RISK**
 6 **PREMIUM.**

7 A. I used the same PRPM approach described previously to develop another
 8 equity risk premium estimate. The inputs to the model are the historical
 9 monthly returns on large company common stocks minus the monthly yields
 10 on Aaa/Aa-rated corporate bonds during the period from January 1928
 11 through April 2022.³¹ Using the previously discussed generalized form of
 12 ARCH, known as GARCH, the projected equity risk premium is determined
 13 using Eviews[®] statistical software. The resulting PRPM-predicted market
 14 equity risk premium is 8.35%.³²

³¹ Data from January 1926 – December 2021 is from SBBI – 2022. Data from January 2022 – April 2022 is from Bloomberg Professional Services.

³² Shown on Line No. 3 on page 11 of Schedule DWD-4.

1 **Q. PLEASE EXPLAIN THE DERIVATION OF A PROJECTED EQUITY RISK**
2 **PREMIUM BASED ON VALUE LINE SUMMARY & INDEX.**

3 A. The derivation of the *Value Line* Summary & Index market equity risk
4 premium can be found in note 4 on page 12 of Schedule DWD-4.
5 Consistent with the concept of total returns being broken down into income
6 returns and capital appreciation returns, the prospective market equity risk
7 premiums are derived from an average of the three- to five-year median
8 market price appreciation potential by *Value Line* for the 13 weeks ending
9 May 13, 2022, plus an average of the median estimated dividend yield for
10 the common stocks of the 1,700 firms covered in *Value Line's* Standard
11 Edition.³³

12 The average median expected price appreciation is 53%, which
13 translates to an 11.22% annual appreciation, and when added to the
14 average of *Value Line's* median expected dividend yields of 1.94%, equates
15 to a forecasted annual total return rate on the market of 13.16%.
16 Subtracting the relevant bond yield (Table 5) for each year results in an
17 indicated market equity risk premium, as shown on page 11, line 4 of
18 Schedule DWD-4.

33 As explained in detail in page 5, note 1 of Schedule DWD-5.

1 **Q. PLEASE EXPLAIN THE DERIVATION OF AN EQUITY RISK PREMIUM**
2 **BASED ON THE VALUE LINE DATA FOR S&P 500 COMPANIES.**

3 A. Using data from *Value Line*, I calculated an expected total return on the S&P
4 500 using expected dividend yields as a proxy for income returns and long-
5 term growth estimates as a proxy for capital appreciation. The expected
6 total return for the S&P 500 is 16.42%. Subtracting the representative yield
7 on Aaa-rated corporate bonds as described above results in equity risk
8 premiums as shown on line 5 of page 11 of Schedule DWD-4.

9 **Q. PLEASE EXPLAIN THE DERIVATION OF AN EQUITY RISK PREMIUM**
10 **BASED ON BLOOMBERG DATA.**

11 A. Using data from Bloomberg, I calculated an expected total return on the
12 S&P 500 using expected dividend yields as a proxy for income returns, and
13 long-term growth estimates as a proxy for capital appreciation, identical to
14 the method described above. The expected total return for the S&P 500 is
15 13.93%. Subtracting the representative yields on Aaa-rated corporate
16 bonds as described above from the prospective market return results in a
17 market equity risk premium as shown on line 6 of page 11 of Schedule
18 DWD-4.

1 **Q. WHAT IS YOUR CONCLUSION OF A BETA-DERIVED EQUITY RISK**
 2 **PREMIUM FOR USE IN YOUR RPM ANALYSIS?**

3 A. I gave equal weight to the six equity risk premiums for each year in arriving
 4 at my indicated market equity risk premiums as shown on line 7 of page 11
 5 of Schedule DWD-4.

6 After calculating the average market equity risk premiums, I adjusted
 7 them by beta to account for the risk of the Utility Proxy Group. As discussed
 8 below, beta is a meaningful measure of prospective relative risk to the
 9 market as a whole and a logical way to allocate a company's, or proxy
 10 group's, share of the market's total equity risk premium relative to corporate
 11 bond yields. As shown on page 1 of Schedule DWD-5, the average of the
 12 mean and median beta for the Utility Proxy Group is 0.82. Multiplying the
 13 beta of the Utility Proxy Group of 0.82 by the market equity risk premiums
 14 shown on line 7 of page 11 of Schedule DWD-4 result in beta-adjusted
 15 equity risk premiums for the Utility Proxy Group on line 9 of page 11 of
 16 Schedule DWD-4 and in Table 6, below:

17 **Table 6: Utility Proxy Group Equity Risk Premiums (Beta-Adjusted**
 18 **Approach)**³⁴

Test Year	Value
Base Year	7.72%
Forecasted Year 1	7.20%
Forecasted Year 2	7.35%

³⁴ From page 11 of Schedule DWD-4.

Forecasted Year 3	7.17%
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1 **b. S&P Utility Index-Derived Equity Risk Premium**

2 **Q. HOW DID YOU DERIVE THE EQUITY RISK PREMIUM BASED ON THE**
3 **S&P UTILITY INDEX AND MOODY'S A-RATED PUBLIC UTILITY**
4 **BONDS?**

5 **A.** I estimated three equity risk premiums based on S&P Utility Index holding
6 returns, and two equity risk premiums based on the expected returns of the
7 S&P Utilities Index, using *Value Line* and Bloomberg data, respectively.
8 Turning first to the S&P Utility Index holding period returns, I derived a long-
9 term monthly arithmetic mean equity risk premium between the S&P Utility
10 Index total returns of 10.74% and monthly Moody's A-rated public utility
11 bond yields of 6.46% from 1928 to 2021, to arrive at an equity risk premium
12 of 4.28%.³⁵ I then used the same historical data and the representative
13 yields on A-rated utility bonds³⁶ to derive equity risk premiums shown on
14 line 2 of page 15 of Schedule DWD-4 based on a regression of the monthly
15 equity risk premiums. The final S&P Utility Index holding period equity risk
16 premium involved applying the PRPM using the historical monthly equity
17 risk premiums from January 1928 to April 2022 to arrive at a PRPM-derived
18 equity risk premium of 5.89% for the S&P Utility Index.

35 As shown on Line No. 1 on page 15 of Schedule DWD-4.

36 See lines 3 and 4 of page 6 of Schedule DWD-4 for applicable A2-rated public utility bond yields.

1 I then derived expected total returns on the S&P Utilities Index of
 2 10.66% and 9.92% using data from *Value Line* and Bloomberg,
 3 respectively, and subtracted the representative A2-rated public utility bond
 4 yields³⁷ to determine two additional equity risk premiums as shown on lines
 5 4 and 5 of page 15 of Schedule DWD-4.

6 **Q. WHAT IS YOUR CONCLUSION FOR THE UTILITY-SPECIFIC EQUITY**
 7 **RISK PREMIUM?**

8 A. As with the market equity risk premiums, I averaged each risk premium to
 9 calculate the indicated utility-specific equity risk premiums as shown on line
 10 6 of page 15 of Schedule DWD-4 and Table 7, below:

11 **Table 7: Utility Proxy Group Equity Risk Premiums (S&P Utility**
 12 **Approach)**³⁸

Test Year	Value
Base Year	5.83%
Forecasted Year 1	5.28%
Forecasted Year 2	5.42%
Forecasted Year 3	5.25%

³⁷ See lines 3 and 4 of page 6 of Schedule DWD-4 for applicable A2-rated public utility bond yields.

³⁸ From page 11 of Schedule DWD-4.

1 **Q. WHAT WAS YOUR CONCLUSION OF AN EQUITY RISK PREMIUM FOR**
2 **USE IN YOUR TOTAL MARKET APPROACH RPM ANALYSIS?**

3 A. The equity risk premiums I applied to the Utility Proxy Group were 6.78%
4 (BY), 6.24% (FY1), 6.39% (FY2), and 6.21% (FY3) which represent the
5 average of the beta-derived and the S&P utility equity risk premiums.³⁹

6 **Q. WHAT IS THE INDICATED RPM COMMON EQUITY COST RATE BASED**
7 **ON THE TOTAL MARKET APPROACH?**

8 A. As shown on line 8 of Schedule DWD-4, page 6, I calculated common equity
9 cost rates for the Utility Proxy Group of 10.87%, 11.30%, 11.20%, and
10 11.32% applicable to the BY, FY1, FY2, and FY3, respectively, based on
11 the total market approach of the RPM.

12 **Q. WHAT ARE THE RESULTS OF YOUR APPLICATION OF THE PRPM**
13 **AND THE TOTAL MARKET APPROACH RPM?**

14 A. As shown on page 1 of Schedule DWD-4, the indicated RPM-derived
15 common equity cost rates are 11.12% (BY), 11.76% (FY1), 11.69% (FY2),
16 and 11.90% (FY3); each of which gives equal weight to the PRPM and the
17 adjusted market approach results.

³⁹ As shown on page 10 of Schedule DWD-4.

1 **C. THE CAPITAL ASSET PRICING MODEL**

2 **Q. PLEASE EXPLAIN THE THEORETICAL BASIS OF THE CAPM.**

3 A. CAPM theory defines risk as the co-variability of a security's returns with
4 the market's returns as measured by beta (β). A beta less than 1.0 indicates
5 lower variability than the market as a whole, while a beta greater than 1.0
6 indicates greater variability than the market.

7 The CAPM assumes that all non-market or unsystematic risk can be
8 eliminated through diversification. The risk that cannot be eliminated
9 through diversification is called market, or systematic, risk. In addition, the
10 CAPM presumes that investors require compensation only for systematic
11 risk, which is the result of macroeconomic and other events that affect the
12 returns on all assets. The model is applied by adding a risk-free rate of
13 return to a market risk premium, which is adjusted proportionately to reflect
14 the systematic risk of the individual security relative to the total market, as
15 measured by beta. The traditional CAPM model is expressed as:

1		R_s	=	$R_f + \beta(R_m - R_f)$
2	Where:	R_s	=	Return rate on the common stock;
3		R_f	=	Risk-free rate of return;
4		R_m	=	Return rate on the market as a whole; and
5		β	=	Adjusted beta coefficient (volatility of the
6				security relative to the market as a whole).

7 Numerous tests of the CAPM have measured the extent to which
8 security returns and betas are related as predicted by the CAPM, confirming
9 its validity. The empirical CAPM ("ECAPM") reflects the reality that while
10 the results of these tests support the notion that beta is related to security
11 returns, the empirical Security Market Line ("SML") described by the CAPM
12 formula is not as steeply sloped as the predicted SML.⁴⁰ The ECAPM
13 reflects this empirical reality.

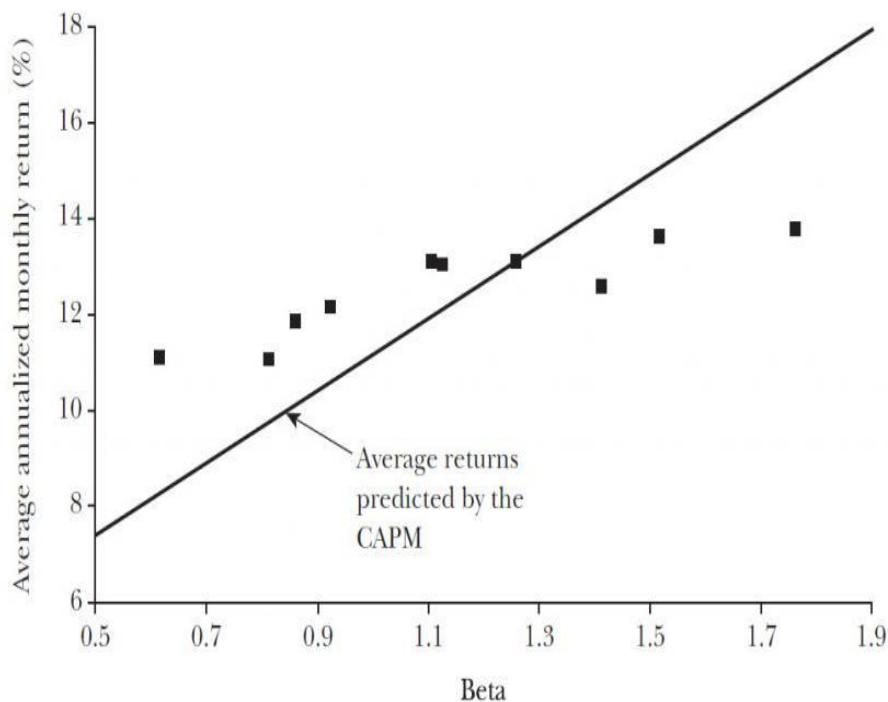
14 In their work on the CAPM, Fama and French clearly state regarding
15 Figure 2, below, that "[t]he returns on the low beta portfolios are too high,
16 and the returns on the high beta portfolios are too low."⁴¹

40 Morin at 205-209.

41 Eugene F. Fama and Kenneth R. French, "The Capital Asset Pricing Model: Theory and Evidence", Journal of Economic Perspectives, Vol. 18, No. 3, Summer 2004 at 33 ("Fama & French"). <http://pubs.aeaweb.org/doi/pdfplus/10.1257/0895330042162430>.

Figure 2 <http://pubs.aeaweb.org/doi/pdfplus/10.1257/0895330042162430>

Average Annualized Monthly Return versus Beta for Value Weight Portfolios Formed on Prior Beta, 1928–2003



1
2 In addition, Morin observes that while the results of these tests
3 support the notion that beta is related to security returns, the empirical SML
4 described by the CAPM formula is not as steeply sloped as the predicted
5 SML. Morin states:

6 With few exceptions, the empirical studies agree that ... low-
7 beta securities earn returns somewhat higher than the CAPM
8 would predict, and high-beta securities earn less than
9 predicted.⁴²

10 * * *

⁴² Morin, at 207.

1 Therefore, the empirical evidence suggests that the expected
2 return on a security is related to its risk by the following
3 approximation:

$$4 \quad K = R_F + x (R_M - R_F) + (1-x) \beta(R_M - R_F)$$

5 where x is a fraction to be determined empirically. The value
6 of x that best explains the observed relationship [is] Return =
7 0.0829 + 0.0520 β is between 0.25 and 0.30. If x = 0.25, the
8 equation becomes:

$$9 \quad K = R_F + 0.25(R_M - R_F) + 0.75 \beta(R_M - R_F)^{43}$$

10 Fama and French provide similar support for the ECAPM when they
11 state:

12 The early tests firmly reject the Sharpe-Lintner version of the
13 CAPM. There is a positive relation between beta and average
14 return, but it is too 'flat.'... The regressions consistently find
15 that the intercept is greater than the average risk-free rate...
16 and the coefficient on beta is less than the average excess
17 market return... This is true in the early tests... as well as in
18 more recent cross-section regressions tests, like Fama and
19 French (1992).⁴⁴

20 Finally, Fama and French further note:

21 Confirming earlier evidence, the relation between beta and
22 average return for the ten portfolios is much flatter than the
23 Sharpe-Linter CAPM predicts. The returns on low beta
24 portfolios are too high, and the returns on the high beta
25 portfolios are too low. For example, the predicted return on
26 the portfolio with the lowest beta is 8.3 percent per year; the
27 actual return as 11.1 percent. The predicted return on the
28 portfolio with the highest beta is 16.8 percent per year; the
29 actual is 13.7 percent.⁴⁵
30

⁴³ Morin, at 221.

⁴⁴ Fama & French, at 32.

⁴⁵ Fama & French., at 33.

1 Clearly, the justification from Morin, Fama, and French, along with
2 their reviews of other academic research on the CAPM, validate the use of
3 the ECAPM. In view of theory and practical research, I have applied both
4 the traditional CAPM and the ECAPM to the companies in the Utility Proxy
5 Group and averaged the results.

6 **Q. WHAT BETAS DID YOU USE IN YOUR CAPM ANALYSIS?**

7 A. For the beta in my CAPM analysis, I considered two sources: *Value Line*
8 and Bloomberg. While both of those services adjust their calculated (or
9 “raw”) betas to reflect the tendency of beta to regress to the market mean
10 of 1.00, *Value Line* calculates beta over a five-year period, while Bloomberg
11 calculates it over a two-year period.

12 **Q. PLEASE DESCRIBE YOUR SELECTION OF A RISK-FREE RATE OF**
13 **RETURN.**

14 A. As discussed previously, I present my CAPM analyses using four risk-free
15 rates reflecting the four years the WSIP will be in effect.

16 **Q. PLEASE EXPLAIN THE ESTIMATION OF THE EXPECTED RISK**
17 **PREMIUM FOR THE MARKET USED IN YOUR CAPM ANALYSES.**

18 A. The basis of the market risk premium is explained in detail in note 1 on page
19 5 of Schedule DWD-5. As discussed previously, the market risk premium
20 is derived from an average of three historical data-based market risk

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1 premiums, two *Value Line* data-based market risk premiums, and one
2 Bloomberg data-based market risk premium.

3 The long-term income return on U.S. Government Securities of
4 5.02% was deducted from the SBBI - 2022 monthly historical total market
5 return of 12.37%, which results in an historical market equity risk premium
6 of 7.35%.⁴⁶ I applied a linear OLS regression to the monthly annualized
7 historical returns on the S&P 500 relative to historical yields on long-term
8 U.S. Government Securities from SBBI - 2022. That regression analysis
9 yielded market equity risk premiums of 10.27% (BY), 9.34% (FY1), 9.38%
10 (FY2), and 9.05% (FY3). The PRPM market equity risk premium is 9.35%
11 and is derived using the PRPM relative to the yields on long-term U.S.
12 Treasury securities from January 1926 through April 2022.

13 The *Value Line* Summary & Index-derived forecasted total market
14 equity risk premiums are derived by subtracting the representative risk-free
15 rates, discussed above, from the *Value Line* Summary & Index projected
16 total annual market return of 13.16%, resulting in forecasted total market
17 equity risk premiums of 10.67% (BY), 9.83% (FY1), 9.86% (FY2), and
18 9.56% (FY3). The S&P 500 projected market equity risk premium using
19 *Value Line* data is derived by subtracting the representative risk-free rates
20 from the projected total return of the S&P 500 of 16.42%. The resulting

⁴⁶ 56-258, 274-276.

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1 market equity risk premiums are 13.93% (BY), 13.09% (FY1), 13.12%
2 (FY2), and 12.82% (FY3).

3 The S&P 500 projected market equity risk premium using Bloomberg
4 data is derived by subtracting the current and projected risk-free rates from
5 the projected total return of the S&P 500 of 13.93%. The resulting market
6 equity risk premiums are 11.44% (BY), 10.60% (FY1), 10.63% (FY2), and
7 10.33% (FY3).

8 These six market equity risk premiums, when averaged, result in an
9 average total market equity risk premiums of 10.50% (BY), 9.93% (FY1),
10 9.95% (FY2), and 9.74% (FY3).

11 **Q. WHAT ARE THE RESULTS OF YOUR APPLICATION OF THE**
12 **TRADITIONAL AND EMPIRICAL CAPM TO THE UTILITY PROXY**
13 **GROUP?**

14 A. As shown on pages 1 through 4 of Schedule DWD-5, the average of the
15 mean and median results of my CAPM/ECAPM analyses are as follows:

16 **Table 8: Indicated CAPM/ECAPM Cost Rates**⁴⁷

Test Year	CAPM/ECAPM ROE
Base Year	11.32%
Forecasted Year 1	11.68%
Forecasted Year 2	11.66%
Forecasted Year 3	11.79%

⁴⁷ From pages 1 through 5 of Schedule DWD-5.

1 **D. COMMON EQUITY COST RATES FOR A PROXY GROUP OF**
2 **DOMESTIC, NON-PRICE REGULATED COMPANIES BASED ON**
3 **THE DCF, RPM, AND CAPM**

4 **Q. WHY DID YOU ALSO CONSIDER A PROXY GROUP OF DOMESTIC,**
5 **NON-PRICE REGULATED COMPANIES?**

6 A. Although I am not an attorney, my interpretation of the *Hope* and *Bluefield*
7 cases is that they did not specify that comparable risk companies had to be
8 utilities. Since the purpose of rate regulation is to be a substitute for the
9 competition of the marketplace, non-price regulated firms operating in the
10 competitive marketplace make an excellent proxy if they are comparable in
11 total risk to the Utility Proxy Group being used to estimate the cost of
12 common equity. The selection of such domestic, non-price regulated
13 competitive firms theoretically and empirically results in a proxy group which
14 is comparable in total risk to the Utility Proxy Group, since all of these
15 companies compete for capital in the exact same markets.

16 **Q. HOW DID YOU SELECT NON-PRICE REGULATED COMPANIES THAT**
17 **ARE COMPARABLE IN TOTAL RISK TO THE UTILITY PROXY GROUP?**

18 A. In order to select a proxy group of domestic, non-price regulated companies
19 similar in total risk to the Utility Proxy Group, I relied on the betas and related
20 statistics derived from *Value Line* regression analyses of weekly market
21 prices over the most recent 260 weeks (i.e., five years). Using these
22 selection criteria resulted in a proxy group of 24 domestic, non-price
23 regulated firms comparable in total risk to the Utility Proxy Group. Total risk

1 is the sum of non-diversifiable market risk and diversifiable company-
2 specific risks. The criteria used in the selection of the domestic, non-price
3 regulated firms was:

- 4 (i) They must be covered by *Value Line* (Standard Edition);
5 (ii) They must be domestic, non-price regulated companies, i.e., not
6 utilities;
7 (iii) Their betas must lie within plus or minus two standard deviations of
8 the average unadjusted beta of the Utility Proxy Group; and
9 (iv) The residual standard errors of the *Value Line* regressions which
10 gave rise to the unadjusted betas must lie within plus or minus two
11 standard deviations of the average residual standard error of the
12 Utility Proxy Group.

13 Betas measure market, or systematic risk, which is not diversifiable.

14 The residual standard errors of the regressions were used to measure each
15 firm's company-specific, diversifiable risk. Companies that have similar
16 betas and similar residual standard errors resulting from the same
17 regression analyses have similar total investment risk.

18 **Q. HAVE YOU PREPARED A SCHEDULE WHICH SHOWS THE DATA**
19 **FROM WHICH YOU SELECTED THE 24 DOMESTIC, NON-PRICE**

1 **REGULATED COMPANIES THAT ARE COMPARABLE IN TOTAL RISK**
 2 **TO THE UTILITY PROXY GROUP?**

3 A. Yes. The basis of my selection, and both proxy groups' regression
 4 statistics, are shown in Schedule DWD-6.

5 **Q. DID YOU CALCULATE COMMON EQUITY COST RATES USING THE**
 6 **DCF, RPM, AND CAPM FOR THE NON-PRICE REGULATED PROXY**
 7 **GROUP?**

8 A. Yes. Because the DCF, RPM, and CAPM have been applied in an identical
 9 manner as described above, I will not repeat the details of the rationale and
 10 application of each model. One exception is in the application of the RPM,
 11 where I did not use public utility-specific equity risk premiums, nor did I apply
 12 the PRPM to the individual non-price regulated companies.

13 Page 2 of Schedule DWD-7 contains the derivation of the DCF cost
 14 rates. As shown, the indicated common equity cost rate using the DCF for
 15 the Non-Price Regulated Proxy Group comparable in total risk to the Utility
 16 Proxy Group, is 10.68%.

17 Pages 3 through 5 of DWD-7 contain the data and calculations that
 18 support the indicated RPM cost rates shown in Table 9, below:

19 **Table 9: Indicated ROEs Using the RPM for the Non-Price Regulated**
 20 **Proxy Group Similar in Total Risk to the Utility Proxy Group**⁴⁸

Test Year	Value
-----------	-------

⁴⁸ From page 3 of Schedule DWD-7.

Base Year	11.79%
Forecasted Year 1	12.33%
Forecasted Year 2	12.13%
Forecasted Year 3	12.25%

1 Pages 6 through 9 of Schedule DWD-7 contain the inputs and
2 calculations that support my indicated CAPM/ECAPM cost rates as shown
3 on Table 10, below:

4 **Table 10: Indicated ROEs Using the CAPM for the Non-Price**
5 **Regulated Proxy Group Similar in Total Risk to the Utility Proxy**
6 **Group**⁴⁹

Test Year	Value
Base Year	11.18%
Forecasted Year 1	11.55%
Forecasted Year 2	11.53%
Forecasted Year 3	11.66%

7 **Q. WHAT ARE THE RESULTS OF THE COST OF COMMON EQUITY**
8 **MODELS BASED ON THE NON-PRICE REGULATED PROXY GROUP**
9 **COMPARABLE IN TOTAL RISK TO THE UTILITY PROXY GROUP?**

10 **A.** The results of the DCF, RPM, and CAPM applied to the Non-Price
11 Regulated Proxy Group comparable in total risk to the Utility Proxy Group
12 are shown on page 1 of Schedule DWD-7. The average of the mean and
13 median of these models are 11.20% (BY), 11.54% (FY1), 11.49% (FY2),
14 and 11.60% (FY3).

⁴⁹ From page 11 of Schedule DWD-4.

1 **VII. CONCLUSION OF COMMON EQUITY COST RATE BEFORE**
 2 **ADJUSTMENT**

3 **Q. BASED ON YOUR ANALYSES WHAT IS THE RANGE OF INDICATED**
 4 **COMMON EQUITY COST RATES FOR THE UTILITY PROXY GROUP**
 5 **BEFORE ADJUSTMENTS?**

6 A. By applying multiple cost of common equity models to the Utility Proxy
 7 Group and the Non-Price Regulated Proxy Group, the indicated range of
 8 common equity cost rates attributable to the Utility Proxy Group before any
 9 relative risk adjustments are as follows:

10 **Table 11: Indicated Ranges of Common Equity Cost Rates Before**
 11 **Adjustment**

Test Year	Value
Base Year	9.85% - 10.85%
Forecasted Year 1	10.07% - 11.07%
Forecasted Year 2	10.03% - 11.03%
Forecasted Year 3	10.14% - 11.14%

12 The indicated ranges of ROEs shown on Table 11 are 50 basis points
 13 above and below the midpoint of my four model results for each time period
 14 as shown on page 2 of Schedule DWD-1.

15 I used multiple cost of common equity models as primary tools in
 16 arriving at my recommended common equity cost rate because each of
 17 these models is theoretically sound and available to investors, and because
 18 no single model is so inherently precise that it can be relied on to the
 19 exclusion of other theoretically sound models. As discussed previously,

1 using multiple models adds reliability to the estimated common equity cost
2 rate, with the prudence of using multiple cost of common equity models
3 supported in both the financial literature and regulatory precedent.

4 **VIII. ADJUSTMENTS TO THE COMMON EQUITY COST RATE**

5 **A. SIZE ADJUSTMENT**

6 **Q. DOES CWSNC'S SMALLER SIZE COMPARED WITH THE UTILITY
7 PROXY GROUP INCREASE ITS BUSINESS RISK?**

8 A. Yes. As a preliminary matter, because I have developed my cost of
9 common equity recommendation for the Company's operations based on
10 market data applied to the Utility Proxy Group of risk-comparable
11 companies, in order to assess the Company's risk associated with its
12 relative small size of its operations, it is necessary to compare the
13 Company's jurisdictional size relative to the Utility Proxy Group. The
14 Company's smaller size relative to the Utility Proxy Group companies
15 indicates greater relative business risk for the Company because, all else
16 being equal, size has a material bearing on risk.

17 Size affects business risk because smaller companies generally are
18 less able to cope with significant events that affect sales, revenues and
19 earnings. For example, smaller companies face more risk exposure to
20 business cycles and economic conditions, both nationally and locally.
21 Additionally, the loss of revenues from a few larger customers would have

1 a greater effect on a small company than on a bigger company with a larger,
2 more diverse, customer base. This is true for utilities, as well as for non-
3 regulated companies.

4 As further evidence that smaller firms are riskier, investors generally
5 demand greater returns from smaller firms to compensate for less
6 marketability and liquidity of their securities. Kroll's Cost of Capital
7 Navigators: U.S. Cost of Capital Module ("Kroll") discusses the nature of the
8 small-size phenomenon, providing an indication of the magnitude of the size
9 premium based on several measures of size. In discussing "Size as a
10 Predictor of Equity Returns," Kroll states:

11 The size effect is based on the empirical observation that
12 companies of smaller size are associated with greater risk
13 and, therefore, have greater cost of capital [sic]. The "size"
14 of a company is one of the most important risk elements
15 to consider when developing cost of equity capital
16 estimates for use in valuing a business simply because
17 size has been shown to be a *predictor* of equity returns. In
18 other words, there is a significant (negative) relationship
19 between size and historical equity returns - as size
20 *decreases*, returns tend to *increase*, and vice versa.
21 (footnote omitted) (emphasis in original)⁵⁰

22 Furthermore, in "The Capital Asset Pricing Model: Theory and
23 Evidence," Fama and French note size is indeed a risk factor which must
24 be reflected when estimating the cost of common equity. On page 14, they
25 note:

⁵⁰ Kroll, Cost of Capital Navigators: U.S. Cost of Capital Module, Size as a Predictor of Equity Returns, at 1.

1 . . . the higher average returns on small stocks and high
2 book-to-market stocks reflect unidentified state variables
3 that produce undiversifiable risks (covariances) in returns
4 not captured in the market return and are priced separately
5 from market betas.⁵¹

6 Based on this evidence, Fama and French proposed their three-
7 factor model which includes a size variable in recognition of the effect size
8 has on the cost of common equity.

9 Also, it is a basic financial principle that the use of funds invested,
10 and not the source of funds, is what gives rise to the risk of any investment.⁵²

11 Eugene Brigham, a well-known authority, states:

12 A number of researchers have observed that portfolios of
13 small-firms (sic) have earned consistently higher average
14 returns than those of large-firm stocks; this is called the
15 “small-firm effect.” On the surface, it would seem to be
16 advantageous to the small firms to provide average
17 returns in a stock market that are higher than those of
18 larger firms. In reality, it is bad news for the small firm;
19 **what the small-firm effect means is that the capital**
20 **market demands higher returns on stocks of small**
21 **firms than on otherwise similar stocks of the large**
22 **firms.** (emphasis added)⁵³

23 Consistent with the financial principle of risk and return discussed
24 above, increased relative risk due to small size must be considered in the
25 allowed rate of return on common equity. Therefore, the Commission’s

⁵¹ Fama & French, at 25-43.

⁵² Richard A. Brealey and Stewart C. Myers, Principles of Corporate Finance (McGraw-Hill Book Company, 1996), at 204-205, 229.

⁵³ Eugene F. Brigham, Fundamentals of Financial Management, Fifth Edition (The Dryden Press, 1989), at 623.

1 authorization of a cost rate of common equity in this proceeding must
2 appropriately reflect the unique risks of the Company, including its small
3 relative size to the Utility Proxy Group, which is justified and supported
4 above by evidence in the financial literature.

5 **Q. EARLIER YOU EXPLAINED THAT CREDIT RATINGS CAN ACT AS A**
6 **PROXY FOR A FIRM'S COMBINED BUSINESS AND FINANCIAL RISKS**
7 **TO EQUITY OWNERS. DO RATINGS AGENCIES ACCOUNT FOR**
8 **COMPANY SIZE IN THEIR BOND RATINGS?**

9 A. No. Neither S&P nor Moody's have minimum company size requirements
10 for any given rating level. This means, all else equal, a relative size analysis
11 must be conducted for equity investments in companies with similar bond
12 ratings.

13 **Q. IS THERE A WAY TO QUANTIFY A RELATIVE RISK ADJUSTMENT DUE**
14 **TO CWSNC'S SMALL SIZE RELATIVE TO THE UTILITY PROXY**
15 **GROUP?**

16 A. Yes. The Company has greater relative risk than the average company in
17 the Utility Proxy Group because of its smaller size, as measured by an
18 estimated market capitalization of common equity for CWSNC (whose
19 common stock is not publicly-traded).

Table 12: Size as Measured by Market Capitalization for the Company and the Utility Proxy Group⁵⁴

	Market Capitalization* (\$ Millions)	Times Greater Than the Company
CWSNC	\$330.292	
Utility Proxy Group Median	\$2,849.097	8.6x

The Company's estimated market capitalization was at \$330.292 million as of May 13, 2022, compared with the median market capitalization of the Utility Proxy Group of \$2.8 billion as of May 13, 2022. The Utility Proxy Group's market capitalization is 8.6 times the size of CWSNC's estimated market capitalization.

As a result, it is necessary to upwardly adjust the indicated range of common equity cost rates to reflect CWSNC's greater risk due to its smaller relative size. The determination is based on the size premiums for portfolios of New York Stock Exchange, American Stock Exchange, and NASDAQ listed companies ranked by deciles for the 1926 to 2021 period.⁵⁵ The average size premium for the Utility Proxy Group with a market capitalization of \$2.8 billion falls in the 6th decile, while CWSNC's market capitalization of \$330.292 million places the Company in the 9th decile. The size premium spread between the 6th decile and the 9th decile is 0.92%. Even though a 0.92% upward size adjustment is indicated, I applied a size

⁵⁴ From page 1 of Schedule DWD-8.

⁵⁵ Source: Kroll, Cost of Capital Navigator.

1 premium of 0.10% to CWSNC's indicated range of common equity cost
2 rates.

3 **Q. SINCE CWSNC IS A WHOLLY-OWNED SUBSIDIARY OF CRU, WHY IS**
4 **THE SIZE OF CRU NOT MORE APPROPRIATE TO USE WHEN**
5 **DETERMINING THE SIZE ADJUSTMENT?**

6 A. The return derived in this proceeding will not apply to CRU as a whole, but
7 only CWSNC. CRU is the sum of its constituent parts, including those
8 constituent parts' returns on common equity. Potential investors in CRU are
9 aware that it is a combination of operations in each state, and that each
10 state's operations experience the operating risks specific to their
11 jurisdiction. The market's expectation of CRU's return is commensurate with
12 the realities of its composite operations in each of the states in which it
13 operates.

14 **B. OTHER CONSIDERATIONS**

15 **Q. DID YOU CONSIDER THE WSIP IN YOUR DETERMINATION OF THE**
16 **COMPANY'S ROE?**

17 A. Yes, I did. In reviewing Commission Rule R1-17A, which establishes the
18 WSIP, I did not find that the mechanism lowered the Company's risk.

19 **Q. PLEASE EXPLAIN YOUR FINDINGS.**

20 A. Risk can be defined as volatility in revenues and earnings. The WSIP, as
21 far as I can gather from current documents, has the effect of generating fully
22 forecasted test years and associated revenue requirements, it better

1 matches future revenues to future expenses, and does not affect the
2 volatility of those revenues or resultant earnings.

3 **Q. DOES THE WSIP PROTECT THE CUSTOMER INTEREST OVER THE**
4 **COMPANY INTEREST?**

5 A. Yes, it does. Commission Rule R1-17A, subsection g(3) a and b state that
6 if a company earns a return in excess of 100 basis points over its authorized
7 return, the company must refund those earnings to their customers. If the
8 company earns less than 100 basis points under its authorized ROE, it does
9 not have the ability to collect a surcharge from its customers but can file a
10 base rate case. This section of the Commission Rule places a ceiling on
11 company earnings, but no floor, which would create an imbalance.

12 **Q. WHAT ARE YOUR CONCLUSIONS REGARDING WSIP'S EFFECT ON**
13 **THE COMPANY'S RISK PROFILE?**

14 A. While WSIP allows the Company to better match revenues and expenses,
15 the WSIP does not mitigate the volatility of those revenues or earnings,
16 which is a direct measure of risk. This, in addition to the WSIP introducing
17 an earnings ceiling without a corresponding earnings floor, leads me to the
18 conclusion that the WSIP does not reduce the Company's risk profile.

1 **IX. ECONOMIC CONDITIONS IN NORTH CAROLINA**

2 **Q. DID YOU CONSIDER THE ECONOMIC CONDITIONS IN NORTH**
3 **CAROLINA IN ARRIVING AT YOUR ROE RECOMMENDATION?**

4 A. Yes, I did. As a preliminary matter, I understand and appreciate that the
5 Commission must balance the interests of investors and customers in
6 setting the return on common equity. As the Commission has stated, it "...is
7 and must always be mindful of the North Carolina Supreme Court's
8 command that the Commission's task is to set rates as low as possible
9 consistent with the dictates of the United States and North Carolina
10 Constitutions."⁵⁶ In that regard, the return should be neither excessive nor
11 confiscatory; it should be the minimum amount needed to meet the *Hope*
12 and *Bluefield* Comparable Risk, Capital Attraction, and Financial Integrity
13 standards.

14 The Commission also has found the role of cost of capital experts is
15 to determine the investor-required return, not to estimate increments or
16 decrements of return in connection with consumers' economic environment:

17 *... adjusting investors' required costs based on factors upon*
18 *which investors do not base their willingness to invest is an*
19 *unsupportable theory or concept. The proper way to take into*
20 *account customer ability to pay is in the Commission's*
21 *exercise of fixing rates as low as reasonably possible without*

⁵⁶ State of North Carolina Utilities Commission, Docket No. E-7, Sub 1026, Order Granting General Rate Increase, Sept. 24, 2013 at 25; see also, North Carolina Utilities Commission, Docket No. E-7, Sub 989, Order on Remand, at 31 ("the Commission in every case seeks to comply with the N.C. Supreme Court mandate that the Commission establish rates as low as reasonably possible within Constitutional limits.").

1 *violating constitutional proscriptions against confiscation of*
2 *property. This is in accord with the “end result” test of Hope.*
3 *This the Commission has done.*⁵⁷

4 The North Carolina Supreme Court agreed, and upheld the
5 Commission’s Order on Remand.⁵⁸ The North Carolina Supreme Court has
6 also, however, made clear that the Commission “must make findings of fact
7 regarding the impact of changing economic conditions on customers when
8 determining the proper ROE for a public utility.”⁵⁹ In *Cooper II*, the North
9 Carolina Supreme Court directed the Commission on remand to “make
10 additional findings of fact concerning the impact of changing economic
11 conditions on customers”,⁶⁰ which the Commission made in its Order on
12 Remand.⁶¹ In light of the *Cooper II* decision and the North Carolina
13 Supreme Court precedent that preceded it,⁶² I appreciate the Commission’s
14 need to consider economic conditions in the state. As such, I have
15 undertaken several analyses to provide such a review.

⁵⁷ State of North Carolina Utilities Commission, Docket No. E-7, Sub 989, Order on Remand, October 23, 2013, at 34 - 35; *see also*, Dominion Remand Order, Docket No. E-22, Sub 479 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”).

⁵⁸ *State ex rel. Utils. Comm’n v. Cooper*, 366 N.C. 484, 739 S.E.2d 541 (2013) (“Cooper I”).

⁵⁹ *State of North Carolina ex rel. Utilities Commission v. Cooper*, 758 S.E.2d 635, 642 (2014) (“Cooper II”).

⁶⁰ *Cooper II*, 758 S.E.2d at 643.

⁶¹ DNCP Remand Order, at 4-10.

⁶² *Cooper I*, 366 N.C. 484, 739 S.E.2d 541 (2013).

1 **Q. PLEASE SUMMARIZE YOUR ANALYSES AND CONCLUSIONS.**

2 A. In its Order on Remand in Docket No. E-22, Sub 479, the Commission
3 observed that economic conditions in North Carolina were highly correlated
4 with national conditions, such that they were reflected in the analyses used
5 to determine the cost of common equity.⁶³ As discussed below, those
6 relationships still hold:

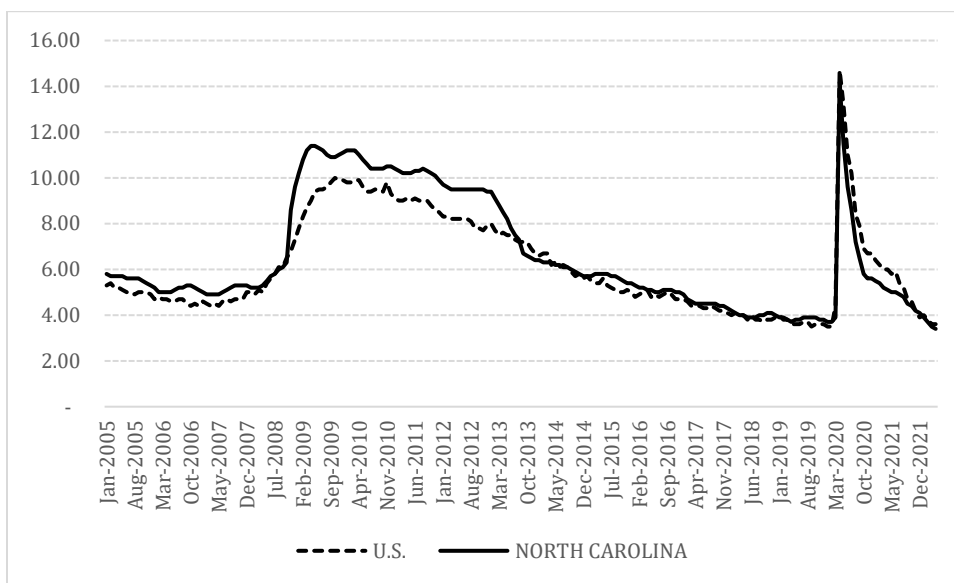
- 7
- 8 • Although economic conditions in North Carolina declined
9 significantly in the second quarter of 2020 as a result of the COVID-
10 19 pandemic, they have improved considerably since. Notably,
11 economic conditions in North Carolina continue to be strongly
12 correlated to the U.S. economy;
 - 13 • Unemployment at both the state and county level remains highly
14 correlated with national rates of unemployment;
 - 15 • Real Gross Domestic Product (“GDP”) in North Carolina also
16 remains highly correlated with U.S. real GDP growth; and
 - 17 • Median household income in North Carolina has grown at a rate
18 consistent with the rest of the U.S. and remains strongly correlated
with national levels.

⁶³ See, State of North Carolina Utilities Commission, Docket No. E-22, Sub 479, Order on Remand, July 23, 2015, at 39.

- 1 **Q. PLEASE NOW DESCRIBE THE SPECIFIC MEASURES OF ECONOMIC**
2 **CONDITIONS THAT YOU REVIEWED.**
- 3 A. Turning first to the seasonally adjusted unemployment rate, prior to April
4 2020, the unemployment rate had fallen substantially in North Carolina and
5 the U.S. since the 2008/2009 financial crisis. Although the unemployment
6 rate in North Carolina exceeded the national rate during and after the
7 2008/2009 financial crisis, by the latter portion of 2013, the two were largely
8 consistent. As the COVID-19 pandemic hit the U.S., unemployment in
9 North Carolina and across the U.S. spiked in April/May 2020 as many
10 communities closed non-essential businesses to contain the spread of the
11 COVID-19 virus. Notably, North Carolina's unemployment rate has fared
12 better than the overall U.S., even as both fell considerably by the beginning
13 of 2021 (see Chart 1, below).

1

Chart 1: Unemployment Rate (Seasonally Adjusted)⁶⁴



2

Between 2005 and March 2022, the correlation between North Carolina’s unemployment rate and the national rate was 95.96%, indicating the two are highly correlated.

3

4

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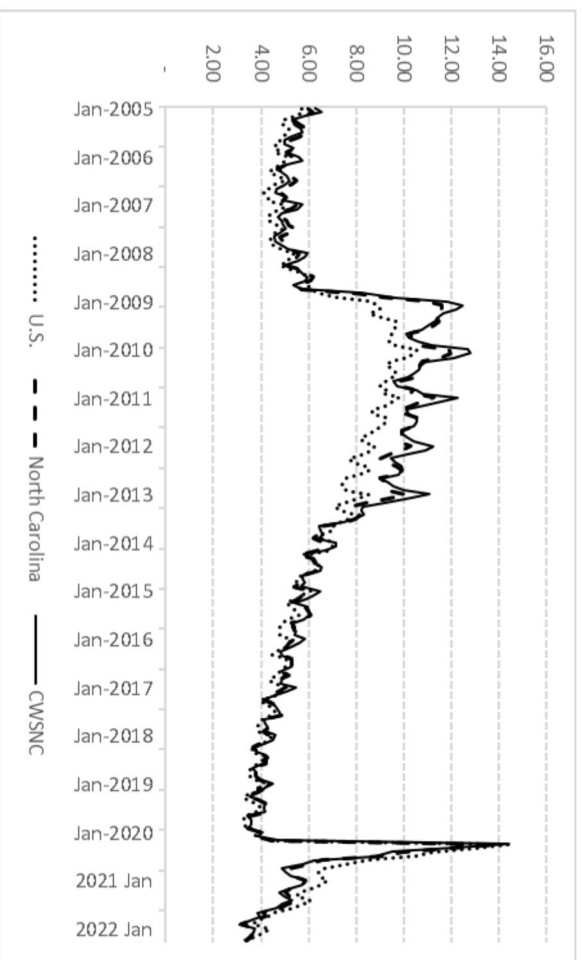
12

Second, I reviewed (seasonally unadjusted) unemployment rates in the counties served by CWSNC. As with the seasonally adjusted statistics described above, the unemployment rate in those counties spiked in April 2020 at 14.43% (0.53% above the state-wide average), but by February 2022 it had fallen substantially to 3.69%, slightly below the rate statewide in North Carolina (3.70%) and below the overall rate in the U.S. (4.10%). From 2005 through February 2022, the correlations in unemployment rates between the counties served by CWSNC and the U.S., as well as North

⁶⁴ Source: Bureau of Labor Statistics.

1 Carolina, were approximately 95.87% and 99.49%, respectively. In
 2 summary, county-level unemployment has fallen considerably since it
 3 recently spiked in April 2020, is similar to the U.S. and statewide
 4 unemployment rates, and is highly correlated to state and national
 5 unemployment rates.
 6

Chart 2: Seasonally Unadjusted Unemployment Rates⁶⁵

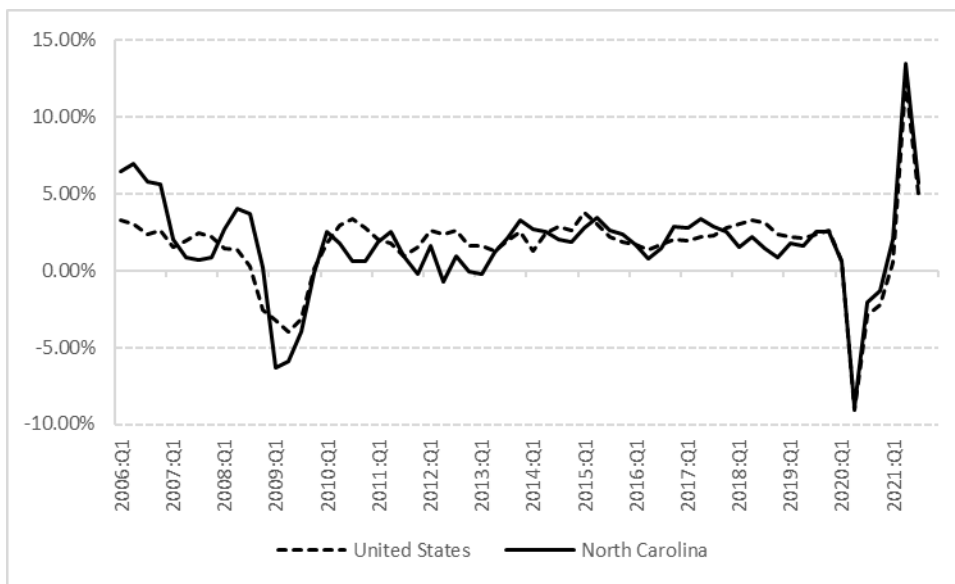


7 Looking to real GDP growth, there also has been a relatively strong
 8 correlation between North Carolina and the national economy
 9 (approximately 86.29%). While the national rate of growth at times
 10 outpaced North Carolina between 2010 and 2014, since the first quarter of
 11 2015, North Carolina's economic growth has been relatively consistent with
 12

⁶⁵ Source: Bureau of Labor Statistics, St. Louis Federal Reserve.

1 U.S. economic growth. Moreover, North Carolina's real GDP grew faster
 2 than the overall U.S. in the first three quarters of 2021.

3 **Chart 3: Real GDP Growth Rate (Year over Year)**⁶⁶



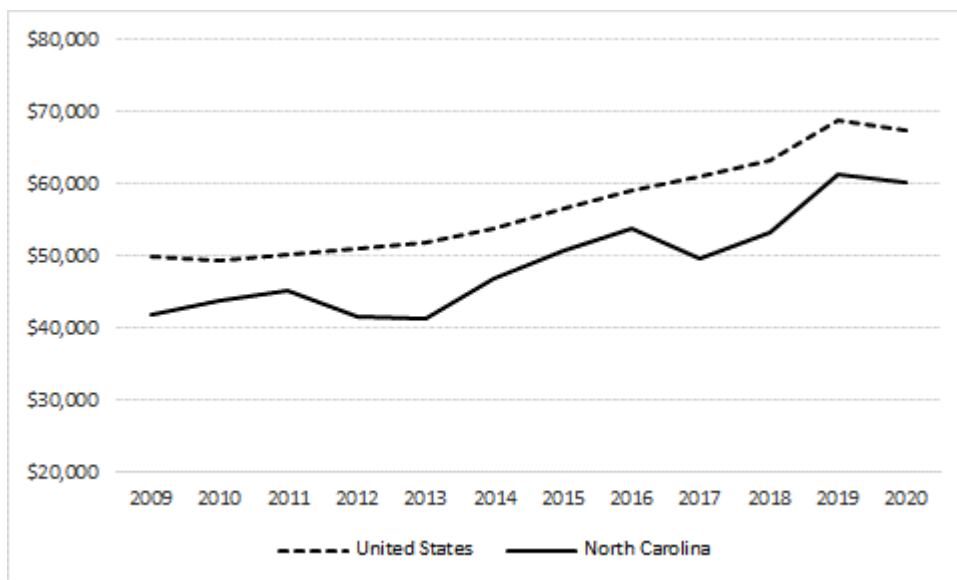
4
 5 As to median household income, the correlation between North
 6 Carolina and the U.S. is relatively strong (95.32% from 2005 through 2020).
 7 Since 2009 (that is, the years subsequent to the financial crisis), nominal
 8 median household income in North Carolina has grown at a slightly faster
 9 pace than the national median income (3.36% vs. 2.81%, respectively; see
 10 Chart 4, below). To put household income in perspective, the Missouri
 11 Economic Research and Information Center reports that in the first quarter

⁶⁶ Source: Bureau of Economic Analysis.

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1 of 2021, North Carolina had the 22nd lowest cost of living index among the
 2 50 states, the District of Columbia, and Puerto Rico.⁶⁷

3 **Chart 4: Median Household Income⁶⁸**



4 Similarly, as shown in Chart 5, below, since 2009 total personal
 5 income, disposable income, personal consumption, and wages and salaries
 6 have generally been on an increasing trend at the national level. Although
 7 wages and salaries dipped in the second quarter of 2020, they rebounded
 8 in late 2020 and continued through the first quarter of 2022.

⁶⁷ Source: meric.mo.gov/data/cost-living-data-series accessed February 26, 2022.

⁶⁸ Source: U.S. Census Bureau, Current Population Survey.

1

Chart 5: United States Income and Consumption⁶⁹



2

3 **Q. HOW WOULD YOU SUMMARIZE THE ECONOMIC INDICATORS THAT**
 4 **YOU HAVE ANALYZED AND DISCUSSED IN YOUR DIRECT**
 5 **TESTIMONY?**

6 **A.** Based on the data presented above, I observed the following:

- 7 • Unemployment at both the state and county level remains highly
- 8 correlated with national rates of unemployment. North Carolina’s
- 9 unemployment rate and the rate in the counties served by
- 10 CWSNC have fallen significantly since spiking in April 2020;
- 11 • The state’s real GDP remains highly correlated with national
- 12 GDP;

⁶⁹ Source: Bureau of Economic Analysis.

- 1 • Similarly, since 2005, median household income has grown in
2 North Carolina and has grown at a rate slightly faster than the
3 national average.
- 4 • The overall cost of living in North Carolina also is below the
5 national average; and
- 6 • At the national level, income has generally been increasing since
7 the financial crisis.

8 The U.S. and North Carolina economies both experienced an
9 historically difficult and challenging 2020 as a result of the COVID-19
10 pandemic; yet the data show that economic conditions have improved
11 significantly since then. Moreover, although economic conditions remain
12 uncertain, North Carolina and the counties contained within CWSNC's
13 service area have fared better than the rest of the U.S. during the COVID-
14 19 pandemic.

15 **Q. IN YOUR OPINION, ARE YOUR RECOMMENDED RANGES OF ROE**
16 **AND REQUESTED ROES OF 10.45% AND 10.70% FAIR AND**
17 **REASONABLE TO CWSNC, ITS SHAREHOLDERS, AND ITS**
18 **CUSTOMERS, AND NOT UNDULY BURDENSOME TO CWSNC'S**

1 **CUSTOMERS CONSIDERING THE CHANGING ECONOMIC**
 2 **CONDITIONS IN THE STATE?**

3 A. Yes. Based on the factors I have discussed here, I believe that my
 4 recommended ranges of ROE are fair and reasonable to CWSNC, its
 5 shareholders, and its customers in light of the uncertainty surrounding
 6 current market conditions.

7 **X. CONCLUSION**

8 **Q. WHAT IS YOUR RECOMMENDED RETURN ON INVESTOR-SUPPLIED**
 9 **CAPITAL FOR CWSNC?**

10 A. My recommended returns on invested capital for the Company are 7.55%
 11 and 7.67% for the base year and FYs 1 through 3, respectively, as
 12 presented in Tables 13a through 13b, below:

13 **Table 13a: Summary of Overall Rate of Return – Base Year**

<u>Type of Capital</u>	<u>Ratios</u>	<u>Cost Rate</u>	<u>Weighted Cost Rate</u>
Long-Term Debt	50.00%	4.64%	2.32%
Common Equity	<u>50.00%</u>	10.45%	<u>5.23%</u>
Total	<u>100.00%</u>		<u>7.55%</u>

14 **Table 13b: Summary of Overall Rate of Return – Projected Years 1**
 15 **through 3**

<u>Type of Capital</u>	<u>Ratios</u>	<u>Cost Rate</u>	<u>Weighted Cost Rate</u>
Long-Term Debt	50.00%	4.64%	2.32%
Common Equity	<u>50.00%</u>	10.70%	<u>5.35%</u>
Total	<u>100.00%</u>		<u>7.67%</u>

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1 Returns on invested capital as recommended above are consistent
2 with the *Hope* and *Bluefield* standard of a just and reasonable return, which
3 ensures the integrity of presently invested capital, and enables the attraction
4 of needed new capital on reasonable terms. It also ensures that CWSNC
5 will be able to continue providing safe, adequate, and reliable service to the
6 benefit of customers. Thus, it balances the interests of both customers and
7 the Company.

8 **Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

9 A. Yes, it does.

DOCKET NO. W-354, SUB 400

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

WITNESS SUMMARY –
DYLAN D'ASCENDIS – INITIAL TESTIMONY

1
2
3 **Summary of Initial Testimony:** My name is Dylan D'Ascendis. I am partner with
4 ScottMadden and I offer expert testimony on behalf of investor-owned utilities on issues
5 involving rate of return and class cost of service. I've testified in over 100 proceedings
6 before 35 regulatory jurisdictions.

7 I am a graduate of the University of Pennsylvania, where I received a Bachelor of Arts
8 degree in Economic History, and I also hold a Masters of Business Administration from
9 Rutgers University with a concentration in Finance and International Business. I'm a
10 Certified Rate of Return Analyst and a Certified Valuation Analyst.

11 My direct testimony recommends that the Commission authorize Carolina Water Service
12 an opportunity to earn a rate of return on equity of 10.45% for the base period and a rate
13 of return on equity of 10.70% percent for the 3 years of the multi-year rate plan. This is
14 based on Carolina Water's test year capital structure which consists of a target capital
15 structure of 50.00% long-term debt and 50.00% common equity, at an embedded long-
16 term debt cost rate of 4.64%, and my recommended common equity cost rate which is
17 10.45% in the base year and 10.70% during the WSIP period.

18 I derived my range of common equity cost rates by applying market-based common
19 equity models such as the discounted cash flow, or DCF model, the capital asset pricing
20 model, or CAPM, and the risk premium model, or RPM, to a group of publicly-traded water
21 utilities and a proxy group of non-regulated companies comparable in total risk to the
22 water utility group. Applying multiple market-based common equity models to the
23 companies comparable in risk to the regulated utilities is consistent with the principles of
24 fair rate of return established in the *Hope* and *Bluefield* Supreme Court cases. This is
25 especially important regarding the corresponding risk standard which mandates that an
26 authorized return on common equity for a utility be commensurate with returns on
27 investments in other enterprises having corresponding risk.

28 However, no proxy group of companies can be identical in risk to any one single company,
29 including Carolina Water. Therefore, adjustments must be made to the market results of
30 the proxy group to reflect any type of risk difference between the proxy group and the
31 Company. Through my selection criteria I selected seven water utility companies with
32 similar risk. I then applied the DCF, the CAPM, and the risk premium model to the group
33 of water utility companies and the group of the non-utilities that are comparable in risk

1 to the water proxy group. After reviewing the results of the models, I concluded that the
2 indicated ROE for the Utility Proxy Group ranged from 9.85% to 10.85% in the Base Year
3 and from 9.85% to 11.14% during the 3-year WSIP period, before any adjustment for risk
4 differences between the Company and the proxy group. To determine if there was any
5 risk difference due to size, I compared the market capitalization of Carolina Water to the
6 median market capitalization of the utility proxy group then calculated an average size
7 premium for the utility proxy group. I found that a 0.92% upward size adjustment would
8 be justified, but conservatively applied a 0.10% upward size adjustment to Carolina
9 Water's indicated range of common equity cost rates.

10 I also considered whether the existence of a multi-year rate plan such as the WSIP
11 affected a utility's risk and therefore its cost of equity. Risk can be defined as volatility in
12 revenues and earnings. I noted that, while a multi-year rate plan better matches future
13 revenues to future expenses, it does not affect volatility of revenues or resulting earnings.
14 Therefore, I do not believe a downward adjustment to Carolina Water's return on equity
15 would be appropriate in this case. This is particularly true because the WSIP, while not
16 affecting volatility of earnings, does cap earnings via the upward banding on return on
17 equity, through which overearnings are credited to customers. At the same time, the
18 WSIP does not contain a symmetrical debit to customers if the utility underearns below
19 the ROE band.

20 Applying the 10-basis point size adjustment to the indicated ROE based on the proxy
21 group results in a range of ROEs from 9.95% to 10.95% for the Base Year and 10.13% to
22 11.24% during the 3-year WSIP period. Given these ranges, an ROE of 10.45% during the
23 Base Year and 10.70% during the WSIP period are appropriate for Carolina Water.

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1 **I. INTRODUCTION, PURPOSE, AND SUMMARY**

2 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

3 A. My name is Dylan W. D'Ascendis. I am employed by ScottMadden, Inc., as
4 a Partner. My business address is 3000 Atrium Way, Suite 200, Mount
5 Laurel, NJ 08054.

6 **Q. ON WHOSE BEHALF ARE YOU SUBMITTING THIS TESTIMONY?**

7 A. I am submitting this rebuttal testimony (referred to throughout as my
8 "Rebuttal Testimony") before the North Carolina Utilities Commission
9 ("Commission") on behalf of Carolina Water Services Inc. of North Carolina
10 ("CWSNC" or the "Company").

11 **Q. DID YOU FILE DIRECT TESTIMONY IN THIS PROCEEDING?**

12 A. Yes, I did.

13 **Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?**

14 A. The purpose of my Rebuttal Testimony is two-fold; first, I update my
15 analyses using market data as of October 14, 2022. Second, I respond to
16 the Testimony of John R. Hinton ("Hinton Testimony") and the Joint
17 Testimony of John R. Hinton, Charles M. Junis, Kuei Fen Sun, and Fenge
18 Zhang ("Joint Testimony"), who testify on behalf of the Public Staff – North
19 Carolina Utilities Commission ("Public Staff") as it relates to the Company's
20 return on common equity ("ROE") in its North Carolina jurisdictional rate
21 base.

1 **Q. PLEASE SUMMARIZE YOUR REBUTTAL TESTIMONY.**

2 A. My Rebuttal Testimony responds to the flaws in Mr. Hinton's determination
3 of his recommended ROE. Specifically, I disagree with Mr. Hinton's
4 applications of the discounted cash flow ("DCF") model and his risk
5 premium model ("RPM"), his failure to reflect the Company's smaller size
6 relative to his proxy group in his ROE recommendation, and his proposal to
7 lower the Company's ROE 20 basis points if its requested water and sewer
8 investment plan ("WSIP") is approved. I also respond to Mr. Hinton's
9 critiques of my Direct Testimony.

10 **Q. HAVE YOU PREPARED AN EXHIBIT IN SUPPORT OF YOUR**
11 **RECOMMENDATION?**

12 A. Yes. I have prepared D'Ascendis Rebuttal Exhibit No. 1, which contains
13 Schedules DWD-1R through DWD-6R, which has been prepared by me or
14 under my direction.

15 **II. UPDATED ANALYSES**

16 **Q. HAVE YOU UPDATED YOUR COST OF COMMON EQUITY ANALYSES**
17 **FOR YOUR REBUTTAL TESTIMONY?**

18 A. Yes, I have. Due to the passage of time since my Direct Testimony analysis
19 (data as of May 13, 2022), I have updated my analysis using data as of
20 October 14, 2022.

1 **Q. HAVE YOU UPDATED YOUR UTILITY PROXY GROUP FOR YOUR**
2 **UPDATED ANALYSES?**

3 A. Yes, I have. The York Water Company is no longer covered by *Value Line*
4 *Investment Survey's* ("Value Line") Standard edition. As such, I have
5 eliminated them from my updated Utility Proxy Group.

6 **Q. HAVE YOU APPLIED ANY OF YOUR ROE MODELS DIFFERENTLY IN**
7 **YOUR UPDATED ANALYSES?**

8 A. No, I have not.

9 **Q. WHAT ARE THE RESULTS OF YOUR UPDATED ANALYSES?**

10 A. Using data available as of October 14, 2022, my updated results are
11 presented on page 2 of Exhibit DWD-1R and in Table 1, below.

12 **Table 1: Updated Cost of Common Equity Results**

	Using Current Interest Rates	Using Projected 2023 Interest Rates	Using Projected 2024 Interest Rates	Using Projected 2025 Interest Rates
Discounted Cash Flow Model	10.12%	10.12%	10.12%	10.12%
Risk Premium Model	11.44%	12.01%	11.91%	11.88%
Capital Asset Pricing Model	11.75%	12.03%	12.00%	12.00%
Cost of Equity Models Applied to Comparable Risk, Non-Price Regulated Companies	<u>11.81%</u>	<u>12.08%</u>	<u>12.02%</u>	<u>12.02%</u>
Indicated Range	10.47% - 11.47%	10.60% - 11.60%	10.57% - 11.57%	10.57% - 11.57%
Size Adjustment	0.10%	0.10%	0.10%	0.10%
Indicated Range of Common Equity Cost Rates After Adjustment	10.57% - 11.57%	10.70% - 11.70%	10.67% - 11.67%	10.67% - 11.67%

13

1 In view of the unadjusted and adjusted ranges of ROE, the Company
2 maintains its requested ROE of 10.45% for the base year ("BY") and
3 10.70% for each of the forecasted test years ("FY"). Upon reviewing my
4 updated results, two items became apparent: (1) the indicated results of my
5 ROE models have generally increased from my analyses presented in my
6 Direct Testimony, which is a directional indicator that the investor-required
7 return has increased since my Direct Testimony, and (2) since the
8 Company's requested ROEs of 10.45% for the BY and 10.70% for the FYs
9 are at the bottom of my ranges of ROEs attributable to the Company (and
10 in the case of the BY request below my indicated range of results), they are
11 conservative measures of the Company's ROE at this time.

12 **Q. DO ECONOMIC CONDITIONS INFLUENCE THE REQUIRED COST OF**
13 **CAPITAL AND REQUIRED RETURN ON COMMON EQUITY?**

14 A. Yes. The models used to estimate the cost of equity are meant to reflect,
15 and therefore are influenced by, current and expected capital market
16 conditions. Therefore, it is important to assess the reasonableness of any
17 financial model's results in the context of observable market data.

18 **Q. DOES YOUR UPDATED ROE ANALYSIS CONSIDER THE CURRENT**
19 **CAPITAL MARKET ENVIRONMENT?**

20 A. Yes, it does. From an analytical perspective, it is important that the inputs
21 and assumptions used to arrive at a ROE recommendation, including
22 assessments of capital market conditions, are consistent with the

1 recommendation itself. Although all analyses require an element of
2 judgment, the application of that judgment must be made in the context of
3 the quantitative and qualitative information available to the analyst and the
4 capital market environment in which the analyses were undertaken.

5 **Q. MR. HINTON SUMMARIZES THE COMPANY'S AUTHORIZED CAPITAL**
6 **STRUCTURE AND RATES OF RETURN FOR ITS LAST FOUR RATE**
7 **CASES ON PAGES 3 AND 4 OF HIS TESTIMONY. DO THOSE**
8 **AUTHORIZED RETURNS REFLECT CAPITAL MARKET CONDITIONS**
9 **AT THOSE PARTICULAR TIMES?**

10 A. Yes, they do.

11 **Q. WHAT ARE MARKET CONDITIONS NOW AS OPPOSED TO DURING**
12 **THE COMPANY'S LAST FOUR RATE CASES?**

13 A. Current capital market conditions are riskier now than during the Company's
14 last four rate cases. On Table 2, below, I have compared several measures
15 of risk throughout each of the Company's last four rate cases. They are (1)
16 proxy group average beta; (2) Fed Funds rate; (3) Average 30-year
17 Treasury bond yield; (4) the Coefficient of Variation ("CoV") of 30-year
18 Treasury bonds during the proceeding;¹ (5) Average A-rated public utility
19 bond yields; (6) the CoV of A-rated utility bond yields; (7) Average inflation
20 rate; (8) the annualized volatility² of the Utility Proxy Group; (9) the

¹ The Coefficient of Variation is used by investors and economists to determine volatility.

² The annualized standard deviation of daily price movements.

1 annualized volatility of the S&P 500; and (10) the average level of the
2 Chicago Board of Exchange's Volatility Index, or VIX.

3 **Table 2: Comparison of Risk Measures During the Pendency of the**
4 **Company's Last Four Rate Cases and the Instant Proceeding³**

	Sub 356	Sub 360	Sub 364	Sub 384	Sub 400
Average Beta	0.73	0.71	0.66	0.78	0.78
Fed Funds rate	0.75%- 1.25%	1.50%- 2.50%	0.00%- 2.50%	0.00%- 0.25%	1.50%- 4.00%
Average 30-year Treasury yield	2.86%	3.13%	2.14%	2.06%	3.33%
CoV of 30-year Treasury bond	1.95%	2.24%	5.79%	4.36%	4.13%
Moody's A-Rated Utility bond Yield	3.97%	4.34%	3.39%	3.25%	5.04%
CoV of Moody's A-Rated Utility bond	1.35%	1.27%	3.32%	3.03%	3.17%
Average Inflation rate (CPI)	1.96%	2.32%	1.96%	6.67%	8.32%
Annualized Proxy Group Volatility	19.97%	23.25%	47.61%	23.31%	26.66%
Annualized S&P500 Volatility	6.77%	15.97%	34.03%	15.97%	23.03%
VIX Index	10.99	16.47	20.25	20.92	25.65

5
6
7 As show in Table 2, current measures of beta, the Fed Funds target
8 rate, 30-year Treasury bond yields, A-rated public utility bond yields, the
9 level of VIX, and the Consumer Price Index ("CPI") are all the highest of the
10 five most recent Company rate cases, indicating higher risk. The increase
11 in risk, and resultant investor required return from last rate case is also
12 reflected in Mr. Hinton's recommended ROE. In Sub 384, Mr. Hinton
13 recommended an ROE of 8.93%, over 50 basis points lower than his
14 present ROE recommendation of 9.45%.

³ Source: Federal Reserve Data Download Program, Bloomberg Professional Services, Value Line Investment Survey

1 **Q. PLEASE SUMMARIZE THE CURRENT CAPITAL MARKET**
2 **ENVIRONMENT FROM WHICH YOUR UPDATED ANALYSIS IS BASED.**

3 A. The economy is currently in an inflationary environment, as evidenced by
4 increased levels of the CPI as compared to the Federal Reserve's ("Fed")
5 traditional inflation target of 2.00%. Inflation can be characterized as an
6 imbalance of supply and demand in the economy, specifically, when
7 demand is in excess of supply. When demand is in excess of supply, the
8 cost of goods and services increase.

9 Part of the Fed's Congressional mandate is to mitigate inflation and
10 they have two main tools to achieve their mandate: (1) raising the Fed
11 Funds Rate; or (2) decreasing the size of their balance sheet. In Fed
12 Chairman Jerome H. Powell's Press Conference on November 2, 2022, he
13 indicated that the Fed has the resolve to use both tools to restore price
14 stability on behalf of American families and businesses.⁴

15 Overall, the current market environment can be summarized as one
16 with increasing inflation⁵, and expectations are that the Fed will implement
17 both of its tools in an attempt to limit inflation.

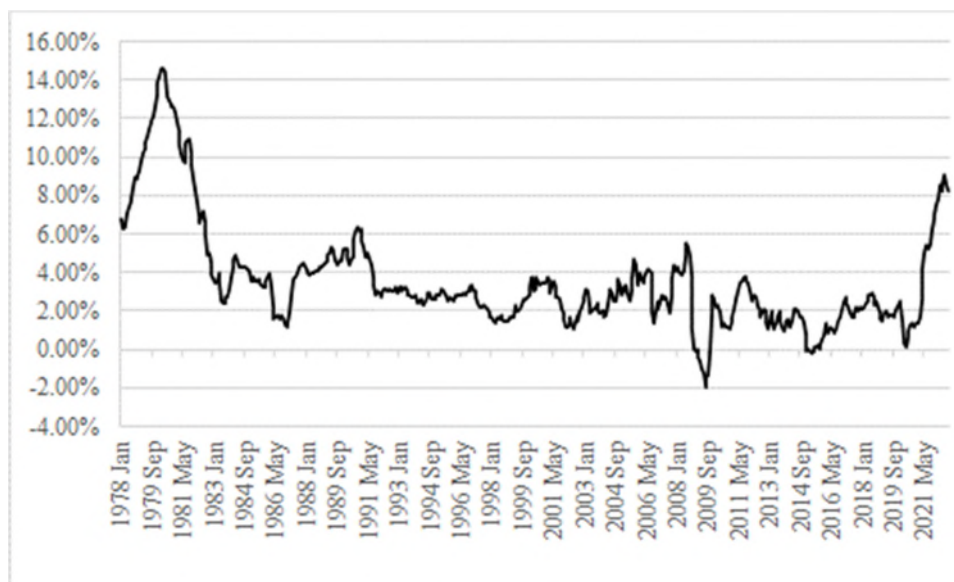
⁴ Transcript of Chair Powell's Press Conference, November 2, 2022.

⁵ As noted by Mr. Hinton on page 16 of his Direct Testimony.

1 **Q. HAS THE CPI RISEN RECENTLY?**

2 A. Yes, it has. As shown on Chart 1, the CPI has increased exponentially since
3 the beginning of the pandemic, and more recently has experienced year-
4 over-year increases not seen since the early 1980s.⁶

5 **Chart 1: Consumer Price Index Change, 1978-Current⁷**



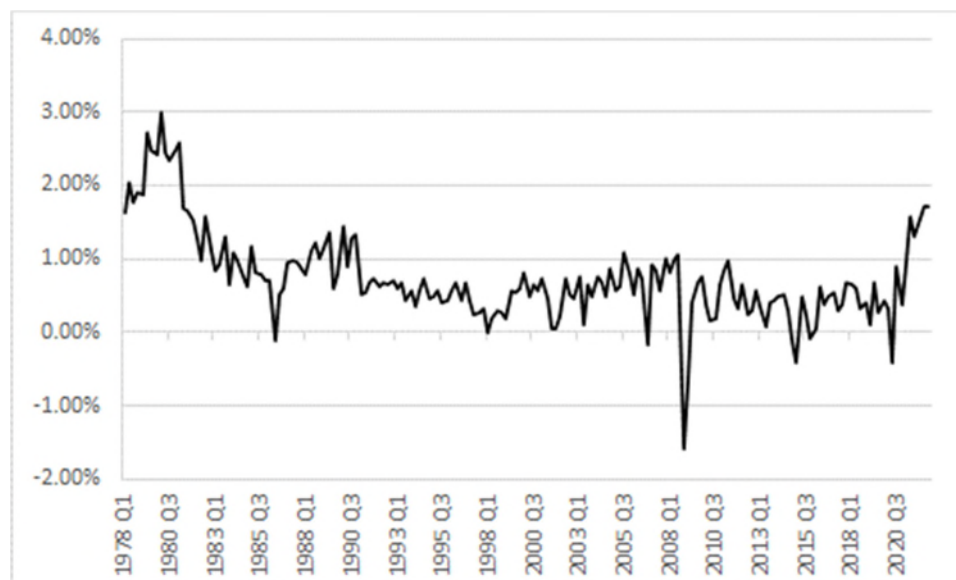
6
7 Further, looking to other measures of inflation such as the Personal
8 Consumption Expenditures Index, both with and without food and energy
9 costs, recent quarterly increases also are the highest they have been since
10 the 1980s.⁸

⁶ Source: Bureau of Labor Statistics, Series Title: All items in U.S. city average, all urban consumers, seasonally adjusted, Series ID: CUSR0000SA0 (https://data.bls.gov/timeseries/CUSR0000SA0?output_view=pct_1mth).

⁷ Source: Bureau of Labor Statistics, Series Title: All items in U.S. city average, all urban consumers, seasonally adjusted, Series ID: CUSR0000SA0 (https://data.bls.gov/timeseries/CUSR0000SA0?output_view=pct_1mth).

⁸ Bureau of Economic Analysis. Table 2.3.4. Price Indexes for Personal Consumption Expenditures by Major Type of Product (<https://apps.bea.gov/iTable/iTable.cfm?reqid=19&step=2#reqid=19&step=2&isuri=1&1921=survey>)

**Chart 2: Personal Consumption Expenditures Index Change,
1978-Current**



Given the rise in these measures as shown in Charts 1 & 2, even if inflation were to moderate to a degree, it would still remain significantly elevated compared to the last several years and the Fed's inflation target of 2.00%.

Q. IS INFLATION EXPECTED TO MODERATE TOWARDS THE FED'S TARGET OF 2.00% IN THE LONG TERM?

A. Yes, it is. In response to market conditions and Fed action, the 10- and 30-year breakeven inflation rates,⁹ represented as the 10-year and 30-year Treasury Inflation-Protected Securities ("TIPS") spreads are 2.41% and 2.33% as of October 14, 2022. These data are consistent with Mr. Powell's

⁹ The breakeven inflation rate is the market's determination of the level of inflation during the period it measures. For example, the 10-year breakeven inflation rate is the market's expectation of inflation over the next ten years.

1 statements in his November 2, 2022 press conference. Discussing the
2 anchoring¹⁰ of long-term inflation expectations, he warns: “But that [TIPS
3 spreads] is not grounds for complacency; the longer the current bout of high
4 inflation continues, the greater the chance that expectations of higher
5 inflation will become entrenched.”¹¹

6 Market-based inflation expectations like the breakeven inflation rate
7 are important benchmarks for the Fed. Michelle W. Bowman, Member of
8 the Board of Governors of the Federal Reserve System noted that:

9 One important factor that we often point to in driving
10 today’s spending decisions and inflation outlook are
11 expectations of future inflation. Near-term
12 expectations tend to rise as current inflation increases,
13 but when inflation expectations over the longer-term –
14 the next 5 to 10 years – begin to rise, it may indicate
15 that consumers and businesses have less confidence
16 in the Fed’s ability to address higher inflation and return
17 it to the Federal Open Market Committee’s (FOMC)
18 goal of 2 percent. If expectations move significantly
19 above our 2 percent goal, it would make it more difficult
20 to change people’s perceptions about the duration of
21 high inflation and potentially more difficult to get
22 inflation under control.¹²

23 **Q. HAS MR. POWELL DESCRIBED THE FED’S APPROACH TO BRING**
24 **INFLATION BACK TO ITS 2.00% TARGET?**

25 A. Yes, he has. During his press conference on November 2, 2022 Mr. Powell
26 stated:

¹⁰ Anchoring of inflation expectations is characterized as the market’s belief (as shown in market data) that inflation rates will normalize toward the Fed’s target of 2.00%.

¹¹ Transcript of Chair Powell’s Press Conference, November 2, 2022. [clarification added]

¹² Michelle W. Bowman, “The Outlook for Inflation and Monetary Policy”, At “Executive Officers Conference Massachusetts Bankers Association”, Harwich, Massachusetts, June 23, 2022.

1 My colleagues and I are strongly committed to bringing
2 inflation back down to our 2 percent goal. We have
3 both the tools that we need and the resolve it will take
4 to restore price stability on behalf of American families
5 and businesses.

6 ***

7 Today, the FOMC [Federal Open Market Committee]
8 raised our policy interest rate by 75 basis points, and
9 we continue to anticipate that ongoing increases will be
10 appropriate. We are moving our policy stance
11 purposefully to a level that will be sufficiently restrictive
12 to return inflation to 2 percent. In addition, we are
13 continuing the process of significantly reducing the size
14 of our balance sheet. Restoring price stability will likely
15 require maintaining a restrictive stance of policy for
16 some time.

17 ***

18 At some point, as I've said in the last two press
19 conferences, it will become appropriate to slow the
20 pace of increases, as we approach the level of interest
21 rates that will be sufficiently restrictive to bring inflation
22 down to our 2 percent goal. **There is significant**
23 **uncertainty around that level of interest rates.**
24 Even so, we still have some ways to go, and incoming
25 data since our last meeting suggest that the ultimate
26 level of interest rates will be higher than previously
27 expected.

28 ***

29 We are taking forceful steps to moderate demand so
30 that it comes into better alignment with supply. Our
31 overarching focus is using our tools to bring inflation
32 back down to our 2 percent goal and to keep longer-
33 term inflation expectations well anchored. Reducing
34 inflation is likely to require a sustained period of below-
35 trend growth and some softening of labor market
36 conditions. Restoring price stability is essential to set
37 the stage for achieving maximum employment and
38 stable prices in the longer run. The historical record

1 cautions strongly against prematurely loosening policy.
2 We will stay the course, until the job is done¹³

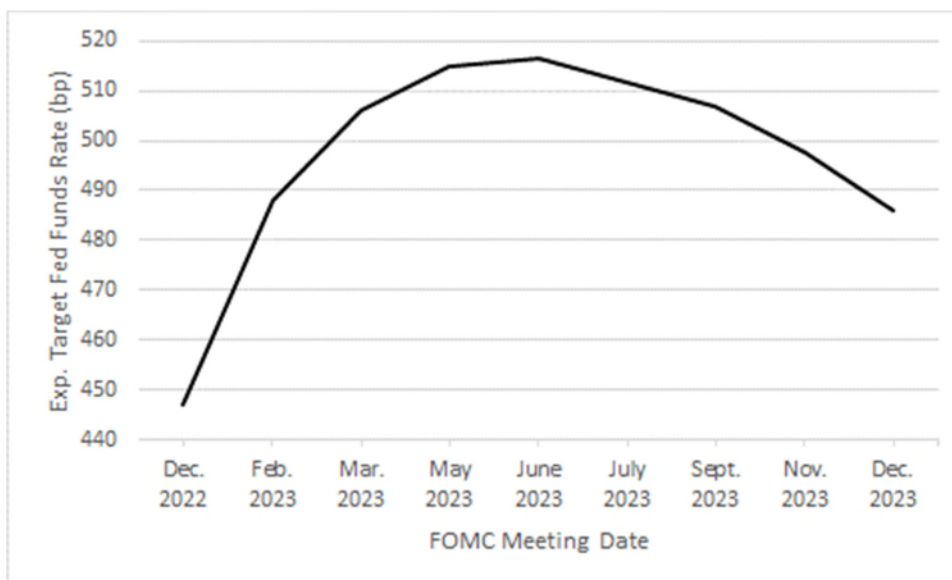
3 As can be gleaned from statements by members of the Fed, they
4 expect inflation to continue well into next year and they will continue to use
5 the tools at their disposal to support the economy and the labor market,
6 including accelerating the pace of rate increases of the Fed Funds Rate and
7 the roll off of assets from its balance sheet.

8 **Q. IS THE MARKET CURRENTLY PRICING EXPECTATIONS OF**
9 **SIGNIFICANT FUTURE FED FUNDS RATE INCREASES IN LINE WITH**
10 **THE FED'S STATEMENTS?**

11 A. Yes. The CME FedWatch Tool, as presented in Chart 3 below, indicates
12 that investors are pricing a Fed Funds Rate in excess of 4.50% through the
13 Fed's December 2023 meeting, as compared to the current level of the Fed
14 Funds Rate between 3.75% and 4.00% as of November 2, 2022.

¹³ Transcript of Chair Powell's Press Conference, November 2, 2022. [clarification and emphasis added]

**Chart 3: CME FedWatch Tool – Expected Fed Funds Rate Through
December 2023 Meeting¹⁴**



3
4 **Q. HOW DOES THE CURRENT INFLATIONARY ENVIRONMENT AFFECT**
5 **AUTHORIZED ROES AND INTEREST RATES?**

6 A. Increasing inflation drives *all* costs higher (e.g., prices for materials, labor,
7 capital). This is an economic reality that affects companies across the
8 board and CWSNC is not immune to such increases. As a result, among
9 other impacts inflation has on a utility's cost of service, higher inflation
10 increases risk, and hence, the investor-required return for utility investors.

11 **Q. PLEASE SUMMARIZE YOUR OBSERVATIONS OF THE CURRENT**
12 **MARKET ENVIRONMENT.**

13 A. In response to the current inflationary environment, the Fed recently raised
14 the Fed Funds Rate and anticipates additional increases over the next year

¹⁴ Source: <https://www.cmegroup.com/trading/interest-rates/countdown-to-fomc.html>,
accessed November 2, 2022.

1 in addition to rolling off of assets from their balance sheet. Regardless of
2 current and future actions of the Fed, it has acknowledged that inflation is
3 higher than its target average level of 2.00% and will continue to run higher
4 than that target.

5 Utilities are not immune from those inflationary pressures which will
6 lead to an increased level of risk, and a higher investor-required return for
7 utility investors.

8 **III. RESPONSE TO PUBLIC STAFF WITNESS HINTON**

9 **Q. PLEASE SUMMARIZE MR. HINTON'S RECOMMENDATIONS.**

10 A. Mr. Hinton accepts the Company's proposed capital structure, which
11 consists of 50.00% long-term debt and 50.00% common equity.¹⁵ Mr.
12 Hinton also accepts the Company's proposed long-term debt cost rate of
13 4.64%.¹⁶ Mr. Hinton has two recommended ROEs, depending on whether
14 the Company's requested WSIP is approved by the Commission. If the
15 WSIP is not approved, Mr. Hinton's recommended ROE is 9.45%.¹⁷ If the
16 Company's WSIP is approved, Mr. Hinton's recommended ROE is 9.25%.¹⁸

17 **Q. DO YOU HAVE ANY GENERAL COMMENTS ON MR. HINTON'S**
18 **RECOMMENDED ROE?**

19 A. There are some areas in which Mr. Hinton and I agree. For example, we
20 both accept the Company's proposed capital structure and debt cost rate,

15 Hinton Testimony, at 5.

16 Hinton Testimony, at 5.

17 Hinton Testimony, at 5.

18 Joint Testimony, at 62.

1 and we both rely on the DCF model and RPM in our analyses. However,
2 there are areas in which we disagree. As will be discussed below, I disagree
3 with (1) his application of the DCF model; (2) his application of the RPM; (3)
4 his failure to reflect the Company's smaller size relative to his proxy group;
5 and (4) his recommended 20-basis-point deduction to his recommended
6 ROE.

7 **A. DISCOUNTED CASH FLOW MODEL**

8 **Q. PLEASE SUMMARIZE MR HINTON'S DCF ANALYSIS.**

9 A. Mr. Hinton calculated his dividend yield by using the *Value Line* estimate of
10 the 12-month projected dividend yield for each of his proxy companies as
11 reported in the *Value Line* Summary and Index for the 13 weeks ended
12 October 7, 2022.¹⁹ He then added the average expected dividend yield of
13 1.87% to a range of growth rates from 6.73% to 7.48% to arrive at indicated
14 DCF cost rates from 8.60% to 9.35%. From these indicated cost rates, he
15 averaged all of them together for his historical & forecasted growth rate DCF
16 cost rate of 9.05%, averaged all of his indicated DCF cost rates using
17 projected measures of growth for his predicted growth rate DCF cost rate
18 of 8.60%, and then averaged all of his indicated DCF cost rates using
19 historical measures of growth for his historical growth rate DCF cost rate of
20 9.35%.²⁰

¹⁹ Hinton Testimony, at 29.

²⁰ Hinton Exhibit 5.

1 **Q. PLEASE COMMENT ON MR. HINTON'S GROWTH RATE ANALYSIS IN**
2 **HIS APPLICATION OF THE DCF MODEL.**

3 A. Mr. Hinton states on pages 30-31 of his testimony that he employed EPS,
4 dividends ("DPS"), and book value of equity per share ("BVPS") growth
5 rates as reported in *Value Line*, both five- and ten-year historical and
6 forecasted, and the five-year projected EPS growth rate as reported by
7 Yahoo! Finance. He includes both historical and forecasted growth rates,
8 "because it is reasonable to expect that investors consider both sets of data
9 in deriving their expectations".

10 As will be discussed below, there is a significant body of empirical
11 evidence supporting the superiority of analysts' EPS growth rates in a DCF
12 analysis, indicating that analysts' forecasts of earnings remain the best
13 predictor of growth to use in the DCF model. Such ample evidence of the
14 proven reliability and superiority of analysts' forecasts of EPS should not be
15 dismissed by Mr. Hinton.

16 **Q. PLEASE DESCRIBE SOME OF THE EVIDENCE SUPPORTING THE**
17 **RELIABILITY AND SUPERIORITY OF ANALYSTS' EPS GROWTH**
18 **RATES IN A DCF ANALYSIS.**

19 A. As discussed in my Direct Testimony,²¹ over the long run there can be no
20 growth in DPS without growth in EPS. Security analysts' earnings
21 expectations have a more significant, but not the only, influence on market

²¹ D'Ascendis Direct Testimony, at 32.

1 prices than dividend expectations. Thus, the use of projected EPS growth
2 rates in a DCF analysis provides a better match between investors' market
3 price appreciation expectations and the growth rate component of the DCF,
4 because they have a significant influence on market prices and the
5 appreciation or "growth" experienced by investors.²² This should be evident
6 even to relatively unsophisticated investors by listening to financial news
7 reports on radio, TV, or reading newspapers.

8 In addition, Myron Gordon, the "father" of the standard regulatory
9 version of the DCF model widely utilized throughout the United States in
10 rate base/rate of return regulation, recognized the significance of analysts'
11 forecasts of growth in EPS in a speech he gave in March 1990 before the
12 Institute for Quantitative Research and Finance²³, stating on page 12:

13 We have seen that earnings and growth estimates by
14 security analysts were found by Malkiel and Cragg to
15 be superior to data obtained from financial statements
16 for the explanation of variation in price among common
17 stocks... estimates by security analysts available from
18 sources such as IBES are far superior to the data
19 available to Malkiel and Cragg.

20 * * *

21 Eq (7) is not as elegant as Eq (4), but it has a good deal
22 more intuitive appeal. It says that investors buy
23 earnings, but what they will pay for a dollar of earnings
24 increases with the extent to which the earnings are

22 Roger A. Morin, Modern Regulatory Finance, Public Utilities Reports, Inc., 2021, at 373-380. ("Morin")

23 Myron J. Gordon, *The Pricing of Common Stock*, Presented before the Spring 1990 Seminar, March 27, 1990, of the Institute for Quantitative Research in Finance, Palm Beach, FL.

1 reflected in the dividend or in appreciation through
2 growth.

3 Professor Gordon recognized that the total return is largely affected
4 by the terminal price, which is mostly affected by earnings (hence
5 price/earnings ("P/E") multiples).

6 Studies performed by Cragg and Malkiel²⁴ demonstrate that
7 analysts' forecasts are superior to historical growth rate extrapolations.
8 While some question the accuracy of analysts' forecasts of EPS growth, the
9 level of accuracy of those analysts' forecasts well after the fact does not
10 really matter. What is important is the forecasts reflect widely held
11 expectations influencing investors at the time they make their pricing
12 decisions, and hence, the market prices they pay.

13 In addition, Jeremy J. Siegel also supports the use of security
14 analysts' EPS growth forecasts when he states:

15 For the equity holder, the source of future cash flows is
16 the earnings of firms. (p. 90)

17 * * *

18 Some people argue that shareholders most value
19 stocks' cash dividends. But this is not necessarily true.
20 (p. 91)

21 * * *

22 Since the price of a stock depends primarily on the
23 present discounted value of all expected future
24 dividends, it appears that dividend policy is crucial to

²⁴ John G. Cragg and Burton G. Malkiel, Expectations and the Structure of Share Prices
(University of Chicago Press, 1982) Chapter 4.

1 determining the value of the stock. However, this is not
2 generally true. (p. 92)

3 * * *

4 Since stock prices are the present value of future
5 dividends, it would seem natural to assume that
6 economic growth would be an important factor
7 influencing future dividends and hence stock prices.
8 However, this is not necessarily so. The determinants
9 of stock prices are earnings and dividends on a *per-*
10 *share* basis. Although economic growth may influence
11 *aggregate* earnings and dividends favorably, economic
12 growth does not necessarily increase the growth of
13 per-share earnings or dividends. It is earnings per
14 share (EPS) that is important to Wall Street because
15 per-share data, not aggregate earnings or dividends,
16 are the basis of investor returns. (italics in original) (pp.
17 93-94)²⁵

18 In view of the above, given the overwhelming academic and
19 empirical support regarding the superiority of security analysts' EPS growth
20 rate forecasts, such EPS growth rate projections should have been relied
21 on by Mr. Hinton in his DCF analysis.

22 **Q. IN REVIEWING THE FINANCIAL LITERATURE, DID YOU DISCOVER**
23 **ANY PUBLICATIONS THAT SUPPORTED THE USE OF PROJECTED**
24 **DPS OR BVPS GROWTH RATES FOR USE IN A DCF MODEL?**

25 A. No, I did not.

²⁵ Jeremy J. Siegel, *Stocks for the Long Run – The Definitive Guide to Financial Market Returns and Long-Term Investment Strategies*, McGraw-Hill 2002, pp. 90-94.

1 Q. LIKewise, ARE YOU AWARE OF ANY SOURCES OF DATA WHICH
2 PROVIDE PROJECTED DPS OR BVPS GROWTH RATES TO
3 INVESTORS?

4 A. *Value Line* is the only widespread, readily available source of which I am
5 aware that publishes projected DPS and BVPS growth rates. If investors
6 indeed valued projected DPS and BVPS growth rates, there would be a
7 market for those data. As they are not relied on by investors to determine
8 their required returns on investments, there is not. Conversely, projected
9 EPS growth rates are widely available to investors.

10 Q. WHAT WOULD MR. HINTON'S DCF RESULT BE HAD HE ONLY RELIED
11 ON EPS GROWTH FORECASTS?

12 A. As shown on Schedule DWD-2R, when looking at individual company
13 results and the average of *Value Line* and Yahoo! Finance projected EPS
14 growth rates the mean and median DCF model results are 10.0% and
15 10.8%, respectively. In view of these indicated results, Mr. Hinton's
16 indicated DCF cost rate of 9.00% is severely understated.

17 Q. IN SCHEDULE DWD-2R, YOU ELIMINATE INDIVIDUAL INDICATED
18 ROES LESS THAN THE YIELD ON A-RATED UTILITY BONDS, WHICH

1 **IS CURRENTLY 5.26%.²⁶ IS ELIMINATING THESE INDICATED ROES**
2 **CONSISTENT WITH BASIC FINANCIAL PRECEPTS?**

3 A. Yes, it is. Yields on debt exceeding the investor required return on equity
4 violates the fundamental financial principle of risk and return, namely that
5 investors require greater returns for bearing greater risk. Because common
6 equity capital has greater investment risk than debt capital, as common
7 equity shareholders are behind debt holders in any claim on a company's
8 assets and earnings, any indicated ROE that is below the yield on long-term
9 debt is non-sensical and should be eliminated.

10 **B. APPLICATION OF THE RISK PREMIUM MODEL**

11 **Q. PLEASE SUMMARIZE MR. HINTON'S RPM.**

12 A. Mr. Hinton's RPM estimates the relationship between average allowed
13 equity returns for water utilities published by Regulatory Research
14 Associates, Inc. ("RRA") and annual average Moody's Investor Service
15 ("Moody's") A-rated utility bond yields. Using data from the years 2009
16 through 2022, Mr. Hinton conducts a regression analysis, which he then
17 combines with recent monthly yields on Moody's A-rated public utility bonds,
18 to develop his risk premium estimate of 5.09% and a corresponding ROE
19 of 9.88%.²⁷

²⁶ Average A-rated utility bond yield for September 2022 as shown on page 16 of Schedule DWD-1R.

²⁷ Hinton Exhibit 4.

1 **Q. DO YOU HAVE ANY CONCERNS REGARDING MR. HINTON'S**
2 **APPLICATION OF THE RPM?**

3 A. Yes, I do. While I agree with Mr. Hinton's methodology (*i.e.*, regression
4 analysis of historical equity risk premiums), I disagree with (1) his exclusive
5 use of current interest rates; (2) his use of annual average return data
6 instead of individual rate case data; and (3) his use of a subset of rate case
7 data instead of the entire RRA water rate case database.

8 **Q. DO YOU BELIEVE THAT MR. HINTON SHOULD RELY EXCLUSIVELY**
9 **ON CURRENT INTEREST RATES IN THE APPLICATION OF HIS RPM?**

10 A. No. Because both cost of capital and ratemaking are prospective in nature,
11 Mr. Hinton should also consider using projected interest rates in his RPM.
12 The cost of capital, including the cost rate of common equity, is
13 expectational in that it reflects investors' expectations of future capital
14 markets, including an expectation of interest rate levels, as well as future
15 risks. Ratemaking is prospective in that the rates set in this proceeding will
16 be in effect for a period in the future.

17 Even though Mr. Hinton relies, in part, on projected growth rates in
18 his DCF analyses, noting that growth in the DCF is expected, stating "I
19 include both known historical growth rates and forecasted growth rates
20 because it is reasonable to expect that investors consider both sets of data

1 in deriving their expectations.”²⁸ Despite this statement, he fails to consider
2 projected measure of interest rates in his RPM analysis.

3 **Q. MR. HINTON STATES THAT HE DOES NOT BELIEVE INTEREST RATE**
4 **FORECASTS ARE RELIABLE IN DETERMINING THE ROE BECAUSE**
5 **THEY DO NOT MATERIALIZE AS EXPECTED²⁹. PLEASE RESPOND.**

6 A. Whether Mr. Hinton believes those forecasts will prove to be accurate is
7 irrelevant to estimating the market-required cost of common equity.
8 Published industry forecasts, such as *Blue Chip Financial Forecasts*’ (“*Blue*
9 *Chip*”) consensus interest rate projections, reflect industry expectations.
10 Additionally, investors’ expectations are not improper inputs to cost of
11 common equity estimation models simply because prior projections were
12 not proven correct in hindsight. As the Federal Energy Regulatory
13 Commission (“FERC”) noted in Opinion No. 531, “the cost of common equity
14 to a regulated enterprise depends upon what the market expects, not upon
15 what ultimately happens.”³⁰ Because our analyses are predicated on
16 market expectations, the expected increase in bond yields is a measurable,
17 observable, and relevant data point that should be reflected in Mr. Hinton’s
18 analysis. Therefore, Mr. Hinton should have considered forecasted interest
19 rates in his analysis.

²⁸ Hinton Direct Testimony, at 30.

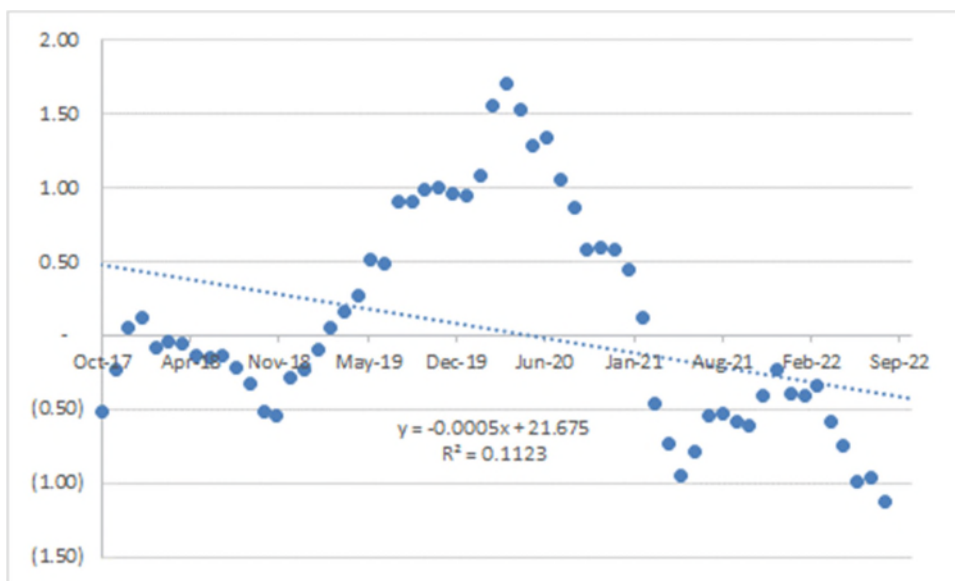
²⁹ Hinton Direct Testimony, at 36-37.

³⁰ Opinion No. 531, 147 FERC ¶ 61,234 at P 88.

1 Q. ARE CURRENT INTEREST RATES ACCURATE PREDICTORS OF
2 FUTURE INTEREST RATES?

3 A. No, they are not. Current interest rates are not proven to be a better
4 predictor of future interest rates than predicted interest rates. In Chart 4
5 (below) I compare actual monthly yields to the three-month yield average
6 from twelve months prior. This chart demonstrates that current Treasury
7 yields have not been accurate predictors of future yields. Those results
8 make intuitive sense. With the recent market dislocation, Treasury yields
9 have decreased significantly and have been volatile. As interest rates
10 decreased, historical Treasury yields over-projected current yields. As
11 interest rates subsequently increased, the opposite was true.

12 **Chart 4: Forecast Error of Three-Month Average Treasury Yields³¹**



13
³¹ Source: Federal Reserve Schedule H.15.

1 **Q. DO YOU AGREE WITH MR. HINTON'S USE OF ANNUAL AUTHORIZED**
2 **RETURNS AND INTEREST RATE DATA IN HIS RPM?**

3 A. No, I do not. Instead of using yearly average authorized returns and
4 Moody's A-rated public utility bond yields, it is preferable to use the
5 authorized returns and Moody's A-rated public utility bond yields on a case-
6 by-case basis. One reason why one should use individual cases instead of
7 an annual average is that some years have more rate case decisions than
8 others, and years with less rate case decisions will garner unnecessary
9 weight. Another reason to use individual cases over an annual average is
10 that interest rates and market conditions change during the year (e.g., the
11 beginning and end of 2020), if one uses annual average authorized returns
12 and annual average interest rates, the fluctuation between the interest rates
13 and equity risk premiums during the year are lost.

14 **Q. DO YOU AGREE WITH MR. HINTON'S USE OF AUTHORIZED ROES**
15 **FOR THE PERIOD 2009-2022 WHEN RATE CASE DATA FROM THE**
16 **PERIOD 2006-2022 IS AVAILABLE?**

17 A. No, I do not. Kroll's 2022 SBBI® Yearbook ("SBBI – 2022") makes it clear
18 that the arbitrary selection of historical periods is highly suspect and unlikely
19 to be representative of long-term trends in market data. For example, SBBI
20 - 2022 states:

21 The estimate of the equity risk premium depends on the length
22 of the data series studied. A proper estimate of the equity risk
23 premium requires a data series long enough to give a reliable
24 average without being unduly influenced by very good and

1 very poor short-term returns. When calculated using a long
 2 data series, the historical equity risk premium is relatively
 3 stable. Furthermore, because an average of the realized
 4 equity risk premium, is quite volatile when calculated using a
 5 short history, using a long series makes it less likely that the
 6 analyst can justify any number he or she wants.³²

7 Given the above, Mr. Hinton should have used the entire
 8 dataset provided by Regulatory Research Associates.

9 **Q. WHAT IS THE RESULT OF THE REGRESSION ANALYSIS AFTER**
 10 **REFLECTING A PROSPECTIVE MOODY'S A-RATED PUBLIC UTILITY**
 11 **BOND YIELD AND USING INDIVIDUAL RATE CASE DATA IN PLACE**
 12 **OF ANNUAL RATE CASE DATA?**

13 A. The range of RPM results reflecting the consideration of projected interest
 14 rates and individual rate case results for the period 2006-2022 is from
 15 9.88% (using current interest rates) and 10.12% (using projected interest
 16 rates). As shown on Schedule DWD-3R, the analysis is based on a
 17 regression of 194 rate cases for water utility companies from August 2006
 18 through May 2022. It shows the implicit equity risk premium relative to the
 19 yields on Moody's A-rated public utility bonds immediately prior to the
 20 issuance of each regulatory decision.³³

21 I determined the appropriate prospective Moody's A-rated public utility
 22 yield by relying on a consensus forecast of about 50 economists of the

³² SBBI – 2022 at 201-202.

³³ If the Order was in the first half of the month, the Moody's A-rated utility bond from two months prior would be used. If the Order was in the second half of the month, the Moody's A-rated public utility bond from the last prior month was used.

1 expected yield on Moody's Aaa-rated corporate bonds for the six calendar
2 quarters ending with the first calendar quarter of 2024, and *Blue Chip's* long-
3 term projections for 2024 to 2028, and 2029 to 2033.³⁴ As described on
4 page 2 of Schedule DWD-3R, the average expected yield on Moody's Aaa-
5 rated corporate bonds is 5.18%. I then derived an expected yield on
6 Moody's A2-rated public utility bonds, by making an upward adjustment of
7 0.70%, which represents a recent spread between Moody's Aaa-rated
8 corporate bonds and Moody's A2-rated public utility bonds. Adding the
9 recent 0.70% spread to the expected Moody's Aaa-rated corporate bond
10 yield of 5.18% results in an expected Moody's A2-rated public utility bond
11 yield of 5.88%.

12 I then used the regression results to estimate the equity risk premium
13 applicable to the both the projected yield and current yields on Moody's A2-
14 rated public utility bonds of 5.88% and 4.93%, respectively. Given the
15 expected Moody's A-rated utility bond yield of 5.88%, the indicated equity
16 risk premium is 4.24%, which results in an indicated ROE of 10.12%, as
17 shown on Schedule DWD-3R. Also shown on Schedule DWD-3R, using a
18 current three-month average Moody's A-rated Utility bond yield of 4.93%,
19 the indicated ROE using the RPM is 9.88%.

³⁴ *Blue Chip Financial Forecasts*, September 30, 2022, at 2, June 1, 2022, at 14.

1 **C. COMPARABLE EARNINGS ANALYSIS**

2 **Q. DID MR. HINTON INCLUDE A COMPARABLE EARNINGS MODEL**
3 **("CEM") ANALYSIS?**

4 A. No. Despite the fact that in at least two recent rate cases, Docket No. G-9,
5 Sub 781 Re: Piedmont Natural Gas Company, Inc., and Docket No. G-5,
6 Sub 632 Re: The Public Service Company of North Carolina, Mr. Hinton
7 considered a CEM as a check on his results, he chose not to do so in this
8 proceeding.

9 **Q. HAVE YOU CONDUCTED A CEM ANALYSIS SIMILAR TO WHAT MR.**
10 **HINTON HAS CONDUCTED IN PRIOR RATE CASES?**

11 A. Yes, I did. Though I disagree with the application of Mr. Hinton's CEM
12 analysis, I examined six years of *Value Line* historical earned returns on
13 equity for each company in his proxy group, as Mr. Hinton did in both of the
14 prior mentioned proceedings. Additionally, as previously discussed, the
15 cost of capital and ratemaking are expectational in nature and, as such,
16 need to use projected data, so I have also examined *Value Line's* projected
17 earned returns for the 2022, 2023, and 2025-2027 periods.

18 **Q. WHAT ARE THE RESULTS OF THAT ANALYSIS?**

19 A. As shown on Schedule DWD-4R, based on historical returns, the average
20 ROE is 10.01% (median 10.00%) and based on projected returns the
21 average ROE is 9.81% (median 10.25%). Even if used as a check, Mr.
22 Hinton's CEM analysis would indicate that his DCF result of 9.00% and his
23 overall ROE recommendation of 9.45% is woefully inadequate.

1 **D. CONCLUSION OF HINTON ADJUSTED RESULTS**

2 **Q. WHAT ARE THE RESULTS OF MR. HINTON'S ROE MODELS AFTER**
 3 **MAKING THE ADJUSTMENTS DESCRIBED TO HIS DCF AND RPM?**

4 A. As shown in Table 3, below, Mr. Hinton's adjusted results are as follows:

5 **Table 3: Mr. Hinton's Adjusted ROE Model Results**

Model	Range	Midpoint
Discounted Cash Flow	10.00% - 10.80%	10.40%
Risk Premium Model	9.88% - 10.12%	10.00%

6 Mr. Hinton's corrected DCF model and RPM results are within the range of
 7 9.88% and 10.80%. The CEM result between 9.81% and 10.25% confirms
 8 that range. These indicated ranges of ROE do not reflect the Company's
 9 smaller size relative to the proxy group and as such, do not yet reflect the
 10 investor-required return for CWSNC.

11 **Q. DOES MR. HINTON MAKE A SPECIFIC ADJUSTMENT TO REFLECT**
 12 **THE SMALLER SIZE OF THE COMPANY RELATIVE TO HIS PROXY**
 13 **GROUP?**

14 A. No. As discussed in my Direct Testimony,³⁵ relative company size is a
 15 significant element of business risk for which investors expect to be
 16 compensated through greater returns. Smaller companies are simply less
 17 able to cope with significant events which affect sales, revenues and
 18 earnings. For example, smaller companies face more exposure to business

³⁵ D'Ascendis Direct Testimony, at 63-66.

1 cycles and economic conditions, both nationally and locally. Additionally,
2 the loss of revenues from a few large customers would have a far greater
3 effect on a small company than on a larger company with a more diverse
4 customer base. Finally, smaller companies are generally less diverse in
5 their operations and have less financial flexibility. Consistent with the
6 financial principle of risk and return in my Direct Testimony,³⁶ such
7 increased risk due to small size must be reflected in the allowed rate of
8 return on common equity.

9 **Q. IS THERE AN EMPIRICAL STUDY IN ADDITION TO THE EMPIRICAL**
10 **ANALYSIS YOU PERFORMED IN YOUR DIRECT TESTIMONY WHICH**
11 **EVALUATES THE EFFECT OF SIZE ON THE COST OF EQUITY?**

12 A. Yes. Kroll's Cost of Capital Navigator: U.S. Cost of Capital Module ("Kroll")
13 presents a Size Study based on the relationship of various measures of
14 size and return. Relative to the relationship between average annual
15 return and the various measures of size, Kroll states:

16 **The "size" of a company is one of the most**
17 **important risk elements to consider when**
18 **developing cost of equity estimates for use in**
19 **valuing a business** simply because size has been
20 shown to be a *predictor* of equity returns.

21 Traditionally, researchers have used market value of
22 equity (market capitalization, or simply "market cap")
23 as a measure of size in conducting historical rate of
24 return studies. However, as we discuss later in this
25 chapter, market cap is not the only measure of size that

³⁶ D'Ascendis Direct Testimony, at 10, 65.

1 can be used to predict return, nor is it necessarily the
2 best measure of size to use.³⁷

3 The Size Study uses the following eight measures of size, all of which
4 have empirically shown that over the long-term, the smaller the company,
5 the higher the risk:

- 6 ■ Market Value of Common Equity (or total capital if no debt /
7 equity);
- 8 ■ Book Value of Common Equity;
- 9 ■ Net Income (five-year average);
- 10 ■ Market Value of Invested Capital;
- 11 ■ Total Assets (Invested Capital);
- 12 ■ Earnings Before Interest, Taxes, Depreciation & Amortization
13 (“EBITDA”) (five-year average);
- 14 ■ Sales / Operating Revenues; and
- 15 ■ Number of Employees.

16 I used the Kroll Size Study to determine the approximate magnitude
17 of any necessary risk premium due to the size of the Company relative to
18 Mr. Hinton’s proxy group. Schedule DWD-5R shows the relative size of
19 each Company compared with my and Mr. Hinton’s combined proxy groups.
20 Indicated size adjustments based on these relative measures range from
21 1.31% to 3.42% for CWSNC. From these results, it is clear that the

³⁷ Kroll, Cost of Capital Navigator: U.S. Cost of Capital Module, Size as a Predictor of Returns, at 1.

1 Company is riskier than our combined proxy groups due to its small size,
2 and that my proposed size adjustment of 10 basis points for the Company
3 is conservative.

4 **Q. PLEASE DISCUSS MR. HINTON'S CONCERNS WITH YOUR**
5 **APPLICATION OF A SMALL SIZE PREMIUM FOR CWSNC.**

6 A. While Mr. Hinton acknowledges that “[i]t is factually correct that rating
7 agencies and investors add a risk factor for small companies with relatively
8 limited capital resources”³⁸ and that “there are published studies that
9 address how the small size of a company relates to higher risks³⁹, he
10 contends, however, is that the size premium does not apply to regulated
11 utilities, and he cites an article by Dr. Annie Wong stating that “utility stocks
12 do not exhibit a significant size premium.”

13 **Q. IS THERE A PUBLISHED RESPONSE TO DR. WONG'S ARTICLE?**

14 A. Yes, there is. In response to Professor Wong's article, *The Quarterly*
15 *Review of Economics and Finance* published an article in 2003, authored
16 by Thomas M. Zepp, which commented on the Wong article cited by Mr.
17 Hinton. Relative to Dr. Wong's results, Dr. Zepp concluded in the Abstract
18 on page 1 of his article: “Her weak results, however, do not rule out the
19 possibility of a small firm effect for utilities.”⁴⁰ Dr. Zepp also noted on page
20 582 that: “Two other studies discussed here support a conclusion that

³⁸ Hinton Direct Testimony, at 38.

³⁹ Hinton Direct Testimony, at 40.

⁴⁰ Thomas M. Zepp, “Utility Stocks and the Size Effect --- Revisited”, *The Quarterly Review of Economics and Finance*, 43 (2003), at 578-582.

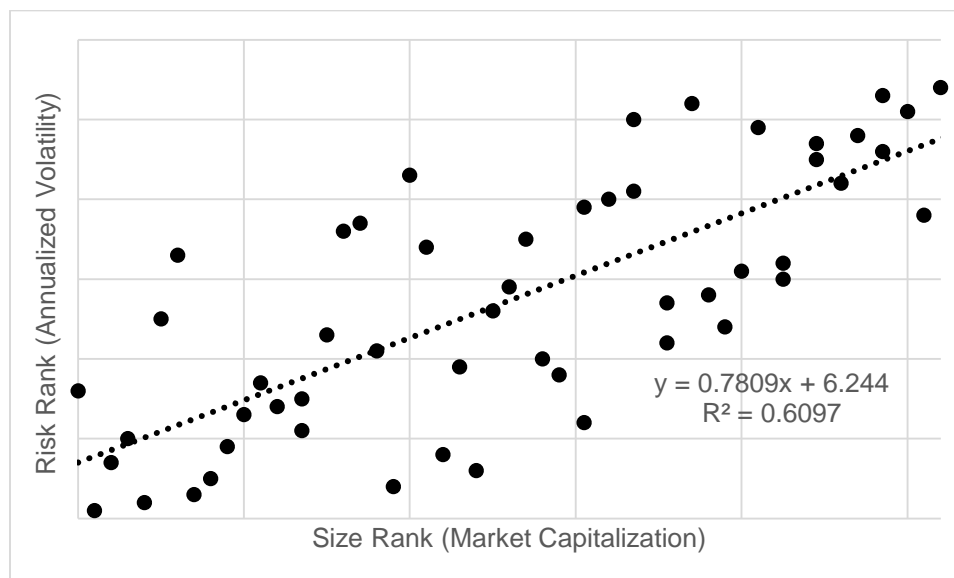
1 smaller water utility stocks are more risky than larger ones. To the extent
2 that water utilities are representative of all utilities, there is support for
3 smaller utilities being more risky than larger ones.”⁴¹

4 **Q. HAVE YOU PERFORMED STUDIES SPECIFIC TO UTILITY COMPANIES**
5 **THAT LINK SIZE AND RISK?**

6 A. Yes, I have performed two studies that link size and risk for utility
7 companies. My first study included the universe of electric, gas, and water
8 companies included in *Value Line Standard* and *Small and Mid-Cap*
9 *Editions*. From each of the utilities’ *Value Line Ratings & Reports*, I
10 calculated the 10-year annualized volatility of daily prices (a measure of
11 risk) and current market capitalization (a measure of size) for each
12 company. After ranking the companies by size (largest to smallest) and risk
13 (least risky to most risky), I made a scatter plot of the data, as shown on
14 Chart 5, below:

41 Thomas M. Zepp, “Utility Stocks and the Size Effect --- Revisited”, *The Quarterly Review of Economics and Finance*, 43 (2003), at 578-582.

**Chart 5: Relationship Between Size and Risk for the
Value Line Universe of Utility Companies⁴²**



As shown in Chart 5 above, as company size decreases (increasing size rank), the annualized volatility increases, linking size and risk for utilities, which is significant at 95.0% confidence level.

The second study used the same universe of companies, but instead of using annualized volatility, I used the *Value Line* Safety Ranking, which is another measure of total risk.⁴³ After ranking the companies by size and Safety Ranking, I made a scatterplot of those data, as shown on Chart 6, below:

⁴² Source: *Value Line*

⁴³ *Value Line* also ranks stocks for Safety by analyzing the total risk of a stock compared to the approximately 1,700 stocks in the *Value Line* universe. Each of the stocks tracked in the *Value Line Investment Survey* is ranked in relationship to each other, from 1 (the highest rank) to 5 (the lowest rank). Safety is a quality rank, not a performance rank, and stocks ranked 1 and 2 are most suitable for conservative investors; those ranked 4 and 5 will be more volatile. Volatility means prices can move dramatically and often unpredictably, either down or up. The major influences on a stock's Safety rank are the company's financial strength, as measured by balance sheet and financial ratios, and the stability of its price over the past five years.

1 **Chart 6: Relationship Between Size and Safety Ranking for the**
 2 **Value Line Universe of Utility Companies**⁴⁴



3
 4 Similar to the first study, as company size decreases, Safety Ranking
 5 degrades, indicating a link between size and risk for utilities. This study is
 6 also significant at the 95% confidence level.

7 **Q. ARE YOU AWARE OF ANOTHER ACADEMIC ARTICLE RELATING TO**
 8 **THE APPLICABILITY OF A SIZE PREMIUM?**

9 A. Yes. An article by Michael A. Paschall, ASA, CFA, and George B. Hawkins
 10 ASA, CFA, "Do Smaller Companies Warrant a Higher Discount Rate for
 11 Risk?" also supports the applicability of a size premium. As the article
 12 makes clear, all else equal, size is a risk factor which must be taken into
 13 account when setting the cost of capital or capitalization (discount) rate.
 14 Paschall and Hawkins state in their conclusion as follows:

⁴⁴ Source: *Value Line*.

1 The current challenge to traditional thinking about a
2 small stock premium is a very real and potentially
3 troublesome issue. The challenge comes from bright
4 and articulate people and has already been
5 incorporated into some court cases, providing further
6 ammunition for the IRS. Failing to consider the
7 additional risk associated with most smaller
8 companies, however, is to fail to acknowledge reality.
9 Measured properly, small company stocks have
10 proven to be more risky over a long period of time than
11 have larger company stocks. This makes sense due to
12 the various advantages that larger companies have
13 over smaller companies. Investors looking to purchase
14 a riskier company will require a greater return on
15 investment to compensate for that risk. There are
16 numerous other risks affecting a particular company,
17 yet the use of a size premium is one way to quantify
18 the risk associated with smaller companies.⁴⁵

19 Hence, Paschall and Hawkins corroborate the need for a small size
20 adjustment, all else equal.

21 **Q. WHAT WOULD MR. HINTON'S CORRECTED RANGE OF ROES BE**
22 **AFTER ADJUSTMENT FOR THE COMPANY'S SMALL RELATIVE**
23 **SIZE?**

24 A. Applying a small size premium of 0.10% to Mr. Hinton's 10.00% to 10.80%
25 indicated range of ROEs applicable to his proxy group would result in a
26 Company-specific ROE range between 10.10% and 10.90%. Mr. Hinton's
27 adjusted range of ROEs includes the Company's requested BY and FY
28 ROEs of 10.45% and 10.70%, respectively.

⁴⁵ Michael A. Paschall, ASA, CFA and George B. Hawkins ASA, CFA, *Do Smaller Companies Warrant a Higher Discount Rate for Risk?*, CCH Business Valuation Alert, Vol. 1, Issue No. 2, December 1999.

1 Q. MR. HINTON JUSTIFIES HIS RECOMMENDED ROE OF 9.45% BY
2 REVIEWING THE INTEREST COVERAGE RATIO AND CONFIRMING
3 THAT HIS ROE WOULD ALLOW THE COMPANY A SINGLE "A"
4 RATING.⁴⁶ DOES ONE MEASURE OF FINANCIAL RISK SUCH AS PRE-
5 TAX INTEREST COVERAGE INDICATE A SPECIFIC CREDIT RATING?

6 A. No. While I do not take issue with Mr. Hinton's inputs or calculations in
7 determining CWSNC's pre-tax interest coverage ratio, I note that the ratios
8 of pre-tax coverage needed to qualify for a single "A" rating range from 3.0
9 to 6.0. As can be seen in Schedule DWD-6R, ROEs ranging from as low
10 as 7.15% to as high as 17.87% all allow CWSNC to qualify for a single "A"
11 rating based on its pre-tax coverage ratio. Clearly, a significantly large
12 range of results indicates that simply relying on a single measure, out of a
13 multitude of measures reviewed by the bond/credit ratings agencies, to
14 determine a company's bond rating is without significance.

15 E. THE COMPANY'S PROPOSED WATER AND SEWER
16 INFRASTRUCTURE PLAN AND ITS EFFECT ON ROE

17 Q. MR. JUNIS, MS. SUN, AND MS. ZHANG SUGGEST THAT BECAUSE
18 THE FY ROE IS GREATER THAN THE BY ROE, THE COMPANY
19 BELIEVES THAT THE "WSIP PRESENTS GREATER RISKS AND THAT

⁴⁶ Hinton Direct Testimony, at 35.

1 **CUSTOMERS SHOULD COMPENSTATE FOR THAT RISK WITH A**
2 **HIGHER ROE”⁴⁷ IS THIS A VALID CHARACTERIZATION?**

3 A. No, it is not. As stated in my Direct Testimony, the recommended ROEs for
4 the BY and FY periods are based solely on underlying changes in
5 forecasted interested rates during the FY period relative to the BY period.⁴⁸

6 **Q. MR. HINTON PROPOSES A 20-BASIS-POINT DEDUCTION TO THE**
7 **COMMISSION-AUTHORIZED ROE IF THE COMMISSION APPROVES**
8 **THE COMPANY’S REQUESTED WSIP.⁴⁹ WHAT REASONS DOES MR.**
9 **HINTON GIVE TO JUSTIFY HIS 20-BASIS-POINT ADJUSTMENT?**

10 A. Mr. Hinton’s main reason to deduct 20 basis points from the approved ROE
11 in this case is due to the WSIP’s effect on regulatory lag, as it allows
12 enhanced cost recovery of eligible capital improvements.⁵⁰ Mr. Hinton also
13 mentions that the reduction in regulatory lag will enhance the Company’s
14 ability to match revenues and expenses, which in turn should reduce the
15 non-weather related volatility of earnings.⁵¹

47 Joint Testimony, at 19.

48 D’Ascendis Direct Testimony, at 4.

49 Joint Testimony, at 63-64.

50 Joint Testimony, at 63.

51 Joint Testimony, at 63-64.

1 **Q. DO YOU AGREE WITH MR. HINTON'S PROPOSED 20-BASIS-POINT**
2 **DEDUCTION?**

3 A. No, I do not. I do not agree with Mr. Hinton's adjustment because he did
4 not prove that the Company's requested WSIP is unique relative to his proxy
5 group.

6 **Q. WHAT IS YOUR POSITION ON REGULATORY MECHANISMS AND THE**
7 **COST OF COMMON EQUITY?**

8 A. It is important to remember that determining the cost of capital is a
9 comparative exercise, so if similar mechanisms are common throughout the
10 companies on which one bases their analyses, the comparative risk is zero,
11 because any impact of the perceived reduced risk of the mechanism(s) by
12 investors would be reflected in the market data of the proxy group. This is
13 a critical and necessary aspect of assessing whether an annual rate
14 mechanism affects a utility's overall risk. As discussed in my Direct
15 Testimony, the WSIP serves as a multi-year rate plan, generating fully
16 forecasted future test years and associated revenue requirements.

17 **Q. DID MR. HINTON ATTEMPT TO SURVEY HIS PROXY GROUP FOR**
18 **SIMILAR REGULATORY MECHANISMS?**

19 A. No, he did not.

1 **Q. HAVE YOU IDENTIFIED THE COMPANIES IN YOUR PROXY GROUP**
2 **WHOSE MARKET DATA WOULD REFLECT FULLY FORECASTED**
3 **FUTURE TEST YEARS?**

4 A. Yes, I have. In response to discovery from Public Staff, I identified that
5 multi-year rate plans are common in the state of California, which would be
6 reflected in the market data of American States Water Company, American
7 Water Works Co., Inc., (through California American Water), California
8 Water Service, and SJW Corp. Similarly, fully forecasted future test years
9 are common in Iowa, Tennessee, Virginia, Pennsylvania, and New York,
10 which would be reflected in the market data of American Water Works, Co.,
11 Inc. (through IA American, TN American, VA American, and PA American),
12 and Essential Utilities, Inc (through Aqua PA and VA).⁵² As detailed above,
13 fully forecasted future test years are reflected in the market data of every
14 proxy group company except for Middlesex Water Company. As such, any
15 risk reduction attributable to a multi-year rate plan would be reflected in their
16 market data, and a further reduction to the Company's ROE would
17 constitute as a double count.

18 **Q. MR. HINTON MENTIONS THAT RATINGS AGENCIES VIEW MULTI-**
19 **YEAR RATE PLANS FAVORABLY. ⁵³ DID HE PROVIDE ANY**

⁵² Fully forecasted test years would also have been reflected in the market data of the York Water Company, as used in the Utility Proxy Group in my Direct Testimony, Joint Testimony, at 64-65.

⁵³

1 **EXAMPLES OF A UTILITY’S CREDIT RATING BEING UPGRADED**
2 **UPON APPROVAL OF A MULTI-YEAR RATE PLAN?**

3 A. No, he did not. As no utility’s credit rating been upgraded upon approval of
4 a multi-year rate plan, Mr. Hinton’s quantification of a 20-basis-point
5 deduction to the Company’s authorized ROE has no basis.

6 **Q. MR. HINTON CRITIQUES YOUR ROE BAND OF 200 BASIS POINTS⁵⁴**
7 **PLEASE RESPOND.**

8 A. In the order adopting Commission Rule R1-17A establishing the WSIP,
9 specifically, Issue 6: Banding of Authorized Rates of Return, the Public Staff
10 proposed the rule that “Any banding of the water utility’s authorized return
11 shall not exceed 100 basis points above or below the midpoint.” My
12 recommended band between 9.70% - 11.70% is consistent with Public
13 Staff’s proposed rule.

14 **Q. MR. HINTON ALSO STATES THAT THE ROE BAND PROVIDES “NO**
15 **BENEFITS TO RATEPAYERS” BECAUSE THE LOWER LIMIT IS 30**
16 **BASIS POINTS ABOVE THE COMMISSION-APPROVED ROE IN THE**
17 **COMPANY’S LAST RATE CASE.⁵⁵ PLEASE RESPOND.**

18 A. The ROE is not constant, as investor expectations are constantly changing
19 to reflect the latest market data and changes in capital markets. As stated
20 in *Bluefield*, an ROE “may be reasonable at one time and become too high
21 or too low by changes affecting opportunities for investment, the money

⁵⁴ Joint Testimony, at 66.

⁵⁵ Joint Testimony, at 67.

1 market and business conditions generally".⁵⁶ Mr. Hinton's own
2 recommended ROE has also increased from the Company's last rate case
3 by 50 basis points, illustrating that capital costs are higher today than they
4 were in 2021. As a result, the fact that capital costs have increased from
5 the Company's last rate case is not sufficient to deem that the ROE band is
6 not beneficial to ratepayers.

7 **F. RESPONSE TO STAFF WITNESS HINTON'S CRITICISMS OF**
8 **COMPANY ANALYSES**

9 **Q. DOES MR. HINTON HAVE ANY CONCERNS WITH YOUR DIRECT**
10 **TESTIMONY?**

11 A. Yes. Mr. Hinton has concerns with my use of interest rate forecasts and my
12 adjustment for CWSNC's small size compared to the proxy group. I have
13 already discussed the appropriateness of using projected interest rates and
14 the application of size adjustments for cost of capital purposes and will not
15 discuss them again here.

16 **IV. CONCLUSION**

17 **Q. PLEASE SUMMARIZE YOUR REBUTTAL TESTIMONY.**

18 A. Using market data as of October 14, 2022, I updated my ROE model
19 analyses, which generally increased since the filing of my Direct Testimony
20 and reflects current and expected capital market conditions. Regarding Mr.
21 Hinton's direct analyses, I discuss flaws in his analysis that are not

⁵⁶ *Bluefield*, at para [6].

1 consistent with financial literature, resulting in a corrected range of ROEs
2 between 10.10% and 10.90%, which overlap my recommended range. I
3 also discuss the Company's requested WSIP and why Mr. Hinton's
4 recommended 20-basis point downward adjustment is unwarranted.

5 Given all of the above, the Company's requested ROE of 10.45% in
6 the BY and 10.70% in the FY is reasonable.

7 **Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?**

8 **A.** Yes, it does.

1 DOCKET NO. W-354, SUB400
2 BEFORE THE NORTH CAROLINA UTILITIES COMMISSION
3 WITNESS SUMMARY-
4 DYLAN D'ASCENDIS-REBUTTAL TESTIMONY
5 **Summary of Rebuttal Testimony:** My rebuttal
6 testimony responds to the direct testimony of Mr.
7 John R. Hinton of the Public Staff and updates my
8 recommended cost of common equity analysis with data
9 as of October 14, 2022. My updated analysis confirms
10 The Base Year cost of equity of 10.45% and WSIP plan
11 years cost of equity of 10.70%. I would note,
12 however, that these are conservative cost of equity
13 recommendations, as there has been an upward trend
14 in the ROE model results since my initial testimony.
15 Also, in my rebuttal testimony, I address several
16 concerns that I have with Mr. Hinton's analysis.
17 Specifically, I disagree with Mr. Hinton's
18 application of the DCF and risk premium models, his
19 failure to reflect the Company's smaller size
20 relative to his proxy group in his ROE
21 recommendation, and his proposal to lower the
22 Company's ROE if the WSIP multi-year rate plan is
23 approved. I also respond to Mr. Hinton's criticisms
24 of my initial testimony.

1 Key points in my rebuttal testimony are as follows:

2 ▪ The economy is currently in an inflationary
3 environment, and inflation affects all costs,
4 including a company's cost of equity.

5 ▪ Mr. Hinton uses and combination of historical
6 and forecasted growth rates, but empirical evidence
7 supports the superiority of using analysts'
8 forecasts of earnings as the best predictor of
9 growth to use in the DCF model. If Mr. Hinton would
10 have used forecasted growth rates, his mean and
11 median DCF model results would be 10.0% and 10.8%,
12 respectively. Accordingly, Mr. Hinton's indicated
13 DCF cost rate of 9.00% is severely understated.

14 ▪ Mr. Hinton exclusively uses current interest
15 rates in his risk premium analysis. Because cost of
16 capital and ratemaking are prospective in nature, he
17 should also consider projected interest rates in his
18 risk premium model, consistent with his use of
19 projected growth rates in his DCF analysis.

20 ▪ Mr. Hinton uses annual authorized returns and
21 interest rate data in his risk premium model. It is
22 preferable to use such data on a case-by-case basis,
23 because some years have more rate case decisions
24 than others, and years with fewer cases then garner

1 unreasonable weighting. In addition, using annual
2 averages ignores changes that occur during the year
3 in interest rates and authorized returns.

4 ▪ Mr. Hinton failed to use a comparable earnings
5 analysis to check his results, although he did
6 perform such an analysis in other recent cases. A
7 comparable earnings analysis similar to the
8 methodology he employed in recent cases indicates
9 that his recommended ROE of 9.45% is woefully
10 inadequate.

11 ▪ Mr. Hinton fails to give consideration to
12 Carolina Water's smaller size in his cost of equity
13 analyses.

14 ▪ Mr. Hinton's proposed 20 basis point reduction
15 to Carolina Water's return on equity if the WSIP is
16 approved is unreasonable because the WSIP is not
17 unique relative to his proxy group. Cost of equity
18 is a comparative analysis, so if similar mechanisms
19 are used by proxy group utilities, the comparative
20 risk is zero. For example, Mr. Hinton's proxy group
21 includes California utilities, where multi-year rate
22 plans are common; and utilities in states where
23 fully forecasted test years are common. Further, no
24 utility's credit rating has been upgraded upon

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approval of a multi-year rate plan.
For all the reasons stated in my direct and rebuttal testimonies, I conclude that 10.45%and 10.70%returns on equity for Carolina Water Service for their Base Year and WSIP plan years, respectively, should be authorized by the Commission in this proceeding.

1 DIRECT EXAMINATION BY MR. ALSON:

2 Q. Mr. D'Ascendis, could you please state your
3 name and spell it for the record.

4 A. Sure. It's Dylan, D-Y-L-A-N; D'Ascendis, D,
5 apostrophe, capital A-S-C-E-N-D-I-S.

6 Q. And what is your business address?

7 A. It's 3000 Atrium Way, Suite 200, in Mount
8 Laurel, New Jersey 08054.

9 Q. And who is your employer and what is your
10 title?

11 A. I'm a partner at ScottMadden, Inc.

12 Q. Thank you very much, Mr. D'Ascendis.

13 MR. ALSON: The witness is available for
14 cross.

15 COMMISSIONER CLODFELTER: Any cross
16 examination of the witness?

17 MR. FREEMAN: Yes, Commissioner.

18 CROSS EXAMINATION BY MR. FREEMAN:

19 Q. Mr. D'Ascendis, my name is Will Freeman. I
20 think we met briefly before this proceeding started.

21 A. Yes.

22 Q. And before that, we've never met before,
23 right?

24 A. I don't think so.

1 Q. I'd like to start in areas where the Public
2 Staff and Carolina Water agree, if you don't mind.

3 A. Sure.

4 Q. We agree that the capital structure utilized
5 should be 50 percent long-term debt and 50 percent
6 common equity?

7 A. Yes, sir.

8 Q. And that's not the actual structure of
9 Carolina Water, but that's the goal structure of
10 Carolina Water's parent corporation, Corix, right?

11 A. That's right.

12 Q. And, in fact, Carolina Water is a wholly
13 owned subsidiary of Corix, and therefore Carolina Water
14 itself isn't issuing debt solely or -- it's not even
15 publicly traded, right?

16 A. It's Corix Regulated Utilities, yes. I would
17 say yes.

18 Q. And so what we're doing is, sort of, imputing
19 a value that a reasonable investor would need in order
20 to be attracted to this entity, Carolina Water?

21 A. I don't know if there is any reasoning behind
22 it, but there's an agreement that the 50/50 capital
23 structure is correct.

24 Q. Okay. And we can agree that Carolina Water's

1 current equity -- return on equity figure is
2 9.4 percent?

3 A. Current as of the last settlement, yes. Yes.

4 Q. Okay. And with respect to long-term debt, we
5 have deemed that that should be 4.64 percent, correct?

6 A. That sounds correct, yes.

7 Q. Yes?

8 A. Yes. Yes.

9 Q. And so the area that I want to focus on today
10 is that 50 percent return on equity, equity cost,
11 equity value, right?

12 So when I say "equity," I'm talking about
13 that 50 percent part.

14 A. Okay.

15 Q. But if you have a better term, I'll use it.

16 A. No. I'm gonna let you stumble around.

17 Q. Okay. So you -- in Exhibit 1 to your
18 testimony, you used a Utility Proxy Group?

19 A. Yes, sir.

20 Q. And so what I'd like to do now is talk about
21 you have added 0.10 percent, or 10 basis points, to
22 Carolina Water because it is smaller, right?

23 A. That's right.

24 Q. All right. And you state that Carolina Water

1 has a size smaller than the Utility Proxy Group, right?

2 A. Yes, sir.

3 Q. So if we take this to its logical conclusion,
4 if North Carolina had a policy of awarding higher ROEs
5 due to smaller company sizes, wouldn't it incentivize
6 companies to create smaller units of themselves within
7 the state?

8 A. No, I don't think so.

9 Q. Well, isn't that what we're doing here?

10 A. No. This -- so the entirety of the Company's
11 North Carolina operations are consolidated and are
12 regulated by this Commission, correct?

13 So what we're looking at is the risk of
14 what's under the jurisdiction of the Commission, what
15 the risk of that operations is compared to the Proxy
16 Group companies.

17 So -- and if you look at this, and the way
18 that you have to take a look at regulation as a
19 stand-alone proposition, you have to look at the
20 investor in this company, this North Carolina
21 jurisdictional rate base and their risk, and it has to
22 reflect that risk. Not the risk of, say, Corix or
23 things like that.

24 Q. Well, one of the utilities in your Proxy

1 Group is Essential, isn't it?

2 A. It is.

3 Q. That's Aqua, who's here in North Carolina,
4 right?

5 A. That's right.

6 Q. When you were analyzing Essential, you never
7 broke it out by Aqua or any other subdivisions; you
8 just used Essential in your Proxy Group, right?

9 A. Yes. Because that's the publicly traded
10 entity.

11 Q. Okay. So if we did -- and I know you
12 disagree, but if we did a similar thing here, we would
13 look at Corix as the parent company, right?

14 A. They're not -- so the reason there's a -- why
15 we use a proxy group is because we use the market data
16 from that proxy group company to estimate a rate of
17 return.

18 If Corix was publicly traded, they would be
19 in my proxy group. The reason why they're not is
20 because they're not publicly traded.

21 And if I could, say, get -- if Aqua
22 North Carolina was publicly traded, they would be in my
23 proxy group, but they're not. Same with this company.
24 If this company was publicly traded, they would be in

1 my proxy group also.

2 So it's not that we're looking at -- we're
3 looking at the data that we have and then making a
4 relative risk adjustment based on size. We cannot
5 break down the component parts of the operating
6 subsidiaries of these companies, because then the
7 market data falls apart.

8 Q. Okay. Well, let's look at what Corix says
9 about itself, if you don't mind.

10 If you would look with me at Exhibit 11 on
11 the -- the prefiled Exhibits 11 on the third and ninth
12 pages, please.

13 A. Give me a second.

14 (Public Staff D'Ascendis Proposed Cross
15 Exhibit 11 was identified as it was
16 marked when prefiled.)

17 Q. That's our prefiled cross examination
18 exhibit. If you would look at Exhibit 11 of our
19 prefiled cross examination --

20 A. Okay. I'm there.

21 Q. And I'll represent to you that the third and
22 ninth pages are identical, but we'll start on the third
23 one.

24 You see where it says "we are local"?

1 A. Yes.

2 Q. Excuse me one moment.

3 A. Sure.

4 MR. FREEMAN: Commissioners, do I need
5 to mark this exhibit?

6 COMMISSIONER CLODFELTER: You do not
7 need to mark this exhibit, Mr. Little [sic]. Thank
8 you for reminding me.

9 I remind Commissioners that pursuant,
10 again, to the Additional Procedures Order, the
11 parties were directed to premark and to file with
12 the Commission on or before November 22, 2022, a
13 notebook containing all proposed exhibits that they
14 might consider offering at this hearing.

15 And so Mr. Hinton's [sic] -- Mr. Little
16 is referring to --

17 Excuse me, Mr. Hinton.

18 Mr. Little --

19 Excuse me, Mr. Little.

20 Mr. Little is referring to the premarked
21 Exhibit Number 11 in your notebooks. All exhibits
22 premarked by the parties pursuant to the Additional
23 Procedures Order shall carry the identification as
24 premarked.

1 MR. FREEMAN: I'm afraid Mr. Little is
2 going to be offended that you have -- he doesn't
3 want to be Mr. Freeman. He's a lot better than me.
4 You got the second string. That's right. I'm
5 Will Freeman, Commissioner.

6 COMMISSIONER CLODFELTER: I'm too busy
7 up here reading my numbers to remember my names.

8 Q. So if we can go to premarked Exhibit 11,
9 third page, "we're local."

10 Do you see where I am?

11 A. I do.

12 Q. "As our name suggests, Corix is a group of
13 Companies who leverage shared economies and
14 efficiencies but provide localized services
15 through regional and state operations. Local
16 operations are backed up by regional and
17 national teams, which provides operational
18 redundancy and risk mitigation in emergencies
19 such as weather events."

20 Do you see where I read that?

21 A. Yes.

22 Q. Did I read it correctly?

23 A. Yes.

24 Q. So can we say that Corix is telling the world

1 that it's a big group of companies?

2 A. Right. But what's under the purview of this
3 Commission is North Carolina's operations and the risk.
4 The ROE that's going to be accepted or authorized in
5 this proceeding is going to be -- is going to reflect
6 the risk of the North Carolina operations, not the
7 entirety of Corix.

8 Q. Do you think investors look at Corix, or do
9 they treat it like -- you did Essential, and just say,
10 "Oh, Aqua, Essential, it's all just one Value Line
11 page"?

12 A. I think you mischaracterized my testimony. I
13 didn't say that Aqua is just Aqua, it's all Essential.
14 I said that Essential is the market data from which I
15 make my analysis for that company, not Aqua
16 North Carolina.

17 Q. Also in this case, Mr. Philip Drennan filed
18 testimony on pages 18 and 19.

19 A. I won't have that in front of me.

20 Q. Ah. Well, I'll represent to you what it
21 says, and we can have your counsel, I bet, check it
22 while I talk.

23 A. Yeah, I'll wait for them to bring it up.

24 MR. ALSON: May I approach,

1 Commissioner?

2 COMMISSIONER CLODFELTER: You may.

3 THE WITNESS: And you said pages 18 and
4 19?

5 Q. Correct.

6 A. All right. Give me a second.

7 (Witness peruses document.)

8 Can I mark this if I need to?

9 Q. Yes. Yes. I have a copy if you need it.

10 A. I'm good. I just -- I didn't know if anybody
11 else was gonna need it, and I'm putting red pen all
12 over it.

13 Q. I want to go over what Corix says about
14 itself as well.

15 Benefits -- do you see the question "please
16 explain the benefits"?

17 A. Yes, sir.

18 Q. "Benefits provided by" -- I'm gonna read
19 portions of that.

20 "Benefits provided by this corporation" --
21 "by this corporate support service structure
22 include human resources, payroll, billing,
23 accounts payable, treasury, legal, and other
24 services."

1 A. Yes.

2 Q. "The parent company also has experts across
3 a range of essential areas such as
4 construction, engineering, operations,
5 accounting, data processing, billing,
6 regulation, and customer service."

7 A. Okay. Now, you skipped the part where the --

8 Q. Yes.

9 A. -- the customers receive savings because of
10 this, right?

11 Q. I was trying not to read the whole paragraph.

12 A. Oh, okay.

13 Q. I was trying to highlight some of the things
14 Corix says about itself and Carolina Water and their
15 integration.

16 A. Okay.

17 Q. And then the next paragraph, Carolina
18 Water -- I'm sorry.

19 "CWSNC customers benefit by having access to
20 investment capital to meet crucial funding
21 needs."

22 A. Yes.

23 Q. Do you have Mr. Hinton's testimony with you?

24 A. I do.

1 Q. If you'll look at WSIP Exhibit 2, page 1?

2 A. Say that one more time.

3 Q. WSIP, W-S-I-P, Exhibit 2, page 1? It's
4 like --

5 A. Is that the joint testimony?

6 Q. -- four-fifths of the way -- yes.

7 A. I don't have the -- I have the portion of the
8 testimony that has to do with cost of capital. I do
9 not have the entire testimony with me.

10 So give me a sec. What page is it? Let me
11 see if I have it.

12 Q. It's Exhibit 2, page 1. However, I have a
13 copy if you need it.

14 A. Yeah, let me -- yes. I just have the words
15 of the testimony, so I definitely don't have the
16 exhibit.

17 MR. FREEMAN: Commissioners, do you mind
18 if I approach?

19 COMMISSIONER CLODFELTER: You may
20 approach, Mr. Freeman.

21 THE WITNESS: I separated my shoulder a
22 couple weeks ago, so that didn't feel great.

23 Okay. Thank you.

24 Q. That is discussing that there's gonna be a

1 merger, correct?

2 A. Sure, yes. I didn't read this, but go ahead.

3 Q. Southwest Water Company is going to serve
4 1.3 million people, right?

5 A. Right.

6 Q. And this is that exhibit created by Corix?

7 A. That's exactly right, yes.

8 (Public Staff D'Ascendis Proposed Cross
9 Exhibit Number 10 was identified as it
10 was marked when prefiled.)

11 Q. Okay. So before we get to the 1.3 million,
12 we can look at exhibit -- pardon -- Exhibit 10.

13 May I borrow that back?

14 A. No.

15 MR. FREEMAN: Commissioners.

16 THE WITNESS: So 10's this guy here?
17 It's close to the same as the last one, right?

18 Q. Yes. I just wanted to --

19 A. Okay.

20 Q. Let's talk about the size of Carolina Water,
21 itself.

22 A. Okay. Are we finished with 10?

23 Q. I was gonna just ask you, if you'll look at
24 the second page of 10, that Carolina Water, itself, has

1 516 miles of --

2 A. I apologize. I asked you if we were finished
3 with 10, but it was 11 that I was asking you if we were
4 finished with. Go ahead.

5 Q. I apologize. Yes, 10.

6 Carolina Water has 516 miles -- 516 main --
7 516 miles of distribution mains --

8 A. Yes.

9 Q. -- 284 potable wells in North Carolina?

10 A. Yes, sir.

11 Q. Okay. So let's talk about size just for --
12 keep on talking about size, if we can --

13 A. Sure.

14 Q. -- for a few more minutes.

15 A. Sure.

16 (Public Staff D'Ascendis Proposed Cross
17 Exhibit Number 12 was identified as it
18 was marked when prefiled.)

19 Q. If you'll -- you would agree with me -- and
20 if you can -- if you'd like to look at a map, we have
21 one as well, filed in a prior case, behind Exhibit 12.

22 A. Yes, I have it. I just didn't print it out
23 in color, so I missed the yellow counties. But --

24 Q. I understand.

1 A. -- I'm generally aware of this.

2 Q. And you can also see Exhibit 12 has a map,
3 and there's also a list of areas where there -- where
4 service is provided.

5 You can see that it's across the entire
6 state, correct?

7 A. Yes. But it's another -- another thing where
8 it's putting your eggs in all in one basket. All of
9 these counties, this entire operation, is still subject
10 to regulation for North Carolina.

11 Now, if we want to talk about Corix or the
12 new combined company, you have a company that's
13 diversified across 18 and 20 different regulatory
14 commissions, regulatory jurisdictions. That is size.

15 "Size" meaning across the state is one thing,
16 but the -- what you're talking about and what you're
17 looking at and the risk and the relative risk of this
18 system versus the Proxy Group is that you're in
19 North Carolina, not everywhere.

20 You under -- like, that's the key to the
21 relative risk argument. That's the key to the size
22 adjustment. You have one jurisdiction, not 18 or 20,
23 where the -- where one jurisdiction may be less
24 constructive, you have one that's more constructive,

1 and then, overall, it evens out.

2 Q. Thank you for that. Maybe I should have been
3 slightly more clear, so I will apologize.

4 I will say to you that Corix and Carolina
5 Water both represent to the world that they are part of
6 something larger. Can we agree with that, based on the
7 websites?

8 A. They may be a part of something larger, but
9 each individual company within their jurisdiction has
10 different risks. And because of that, they have to be
11 reflected in their rate of return from their
12 jurisdictional commissions.

13 So there's -- while you can be part of a
14 whole, you have your own specific risks. If you think
15 about portfolio theory, you could have a bunch of
16 things, things with low risks, things with high risk,
17 and then all of a sudden, when you put them all
18 together, you're less risky.

19 This company does not have that.
20 North Carolina does not have that. So because of that,
21 the risk has to be reflective of the North Carolina
22 jurisdictional risks. And I'm saying that they're
23 smaller than the Companies, which is absolutely true.

24 Q. Okay. I wanted to do the very small thing,

1 which is say they represent to the world that they're
2 part of something larger.

3 A. And I think I answered the question.

4 Q. Okay. Then I'd like to say another fact,
5 which is: The thing you just talked about, breaking
6 them down, looking at each jurisdiction, is not an
7 analysis that you performed on the proxy utility
8 groups, right?

9 A. You cannot. Because once you break down
10 the -- because what you're doing is you're taking the
11 market data of that proxy group company, and that's
12 what is reflected from the market data.

13 So if you take, say, Essential, you can't
14 break down their specific risk and then change their
15 size around, because that's not what you -- you're
16 deriving your rate of return from the market data of
17 the Proxy Group company.

18 So you can't say, "All right. Well, there's
19 40 different companies in" -- let's just call it
20 Essential, even though it's less than that. But you
21 can't break it down because that doesn't reflect the
22 cost rate. Because then you would have to change the
23 cost rate for each entire one of those.

24 Q. Okay. I think that's the long way to say,

1 "Yes, you're right, Will."

2 A. I don't -- I don't think so.

3 Q. Okay.

4 A. I think -- I did not break them down, but
5 there's a reason why I didn't break them down. You
6 can't break down that type. You can't get market data
7 for subsidiaries of the Proxy Group companies because
8 they're not publicly traded.

9 (Public Staff D'Ascendis Proposed Cross
10 Exhibit Number 4 was identified as it
11 was marked when prefiled.)

12 Q. If you'd look with me at the exhibit --
13 Proposed Cross Exhibit Number 4, which was prefiled on
14 November 22nd.

15 A. Sure.

16 Q. And you'll turn --

17 A. Give me a second.

18 Q. Yes.

19 A. (Witness peruses document.)

20 Okay. And just confirming it's the partial
21 settlement for Carolina Water in 2018, correct?

22 Q. And the second page of that has "85" at the
23 bottom?

24 A. Yes, sir. I got it.

1 Q. And if you'll look at the final paragraph at
2 the bottom of page 85, I will read parts of it, and you
3 can tell me if I got it wrong.

4 "While a small water/wastewater utility might
5 face greater risk than a publicly traded peer
6 group because, for example, the service area
7 was confined to a hurricane-prone coastal
8 geographic area, evidence of such factual
9 predicates is absent from the record. The
10 Commission notes that the witnesses also
11 disagree with respect to whether the studies
12 discussed and the testimony concerning size
13 and risk are reliable or even applicable to
14 regulated utilities."

15 A. You are correct. But there was a reason --
16 if you go to the top of that paragraph, it talks about
17 insufficient evidence.

18 Q. Correct.

19 A. And if you look at pages 33 through 35 of my
20 direct -- or my rebuttal testimony, it shows that I
21 made -- I provided additional evidence which was not in
22 that case that was settled, which means that none of
23 this is precedent-setting anyway.

24 But -- but if you look at this, on Chart 5 of

1 my rebuttal testimony on page 34, the -- if you look
2 at, as the size of the company decreases, the
3 annualized volatility of their stock price increases,
4 which would indicate higher risk for utility companies.

5 And then if you look at Chart 6 on that -- on
6 the next page, on page 35, you'll see a safety ranking.
7 Similar -- similar comparison. As the size of the
8 company goes down, the safety ranking degrades. And
9 Mr. Hinton agrees with me that safety rank is a
10 relevant measure of total risk in his direct testimony.

11 So while there was insufficient evidence in
12 2018, I have provided additional evidence in this
13 docket.

14 Q. Well, you said a couple of things there.
15 First, it's rebuttal testimony, so I'd like to go into
16 that in depth a little bit later.

17 Second, you talked about a study. And I'd
18 like to put a pin in that and come back to it.

19 But, third, I'd like to go back to page 85.
20 And there the Commission was looking for -- it
21 specifically noted, hey, if you're just in the
22 hurricane coastal region, yeah, we might consider a
23 risk adjustment.

24 But here we have in this case -- now stop

1 speaking as the Commission. In this case, we have
2 geographic diversity, and that satisfies the concerns
3 that are on page 85 which would otherwise trigger that
4 small mom-and-pop increase to ROE, right?

5 We have geographic diversity. That's what
6 the Commission said. "If you've got geographic
7 diversity, that's what we're looking for for an upward
8 increase."

9 A. I disagree with geo- -- that this is
10 geographically diverse, because it's not regulatory
11 diverse. It could be one -- it could be different
12 areas of one state, but it's still just one state in my
13 testimony that I talked about. It's still staying that
14 way.

15 Q. Well, I'm going to let you and the Commission
16 argue about whose rules govern this one. Is that okay?

17 A. That's fine. There are different
18 Commissioners in this case than there are in the last
19 one too.

20 Q. I understand.

21 So you mentioned the study, and I said I
22 wanted to put a pin in that.

23 MR. FREEMAN: And I'm bad to forget
24 things. So, Gina, you can kick me if I do.

1 (Public Staff D'Ascendis Proposed Cross
2 Exhibit Number 2 was identified as it
3 was marked when prefiled.)

4 Q. But there was a study that you -- there was a
5 study performed, and it's attached. If you'll look
6 with me at Exhibit 2 -- Prefiled Exhibit --
7 D'Ascendis Proposed Cross Exhibit 2, filed on
8 November 2, 2022.

9 A. Say that one more time.

10 Q. Exhibit 2.

11 A. All right. Thank you. This is the
12 Annie Wong article?

13 Q. And do you have it in front of you?

14 A. I do.

15 Q. Page 98:

16 "Utility stocks are consistently less risky
17 than industrial stocks."

18 That's in section -- and if you'll look with
19 me at Section 6, which is at the page number in the top
20 left corner, 98.

21 A. Okay.

22 Q. It's talking about betas, which I think we
23 could say is a risk word there, right?

24 A. I could -- I could -- so a beta is a measure

1 of market risk. Size is a diversifiable risk.

2 So this study generally, since they're using
3 changes of beta to measure the difference in the risk
4 of size, doesn't make any sense. Because if it's a
5 market risk, that's an absence of diversifiable risk.
6 So size, since it's a diversifiable risk, it has -- it
7 won't even be reflected in beta.

8 Furthermore, beta has low explanatory power.
9 There are squares, which means, you know, the variance
10 of prices by -- you know, the beta explaining the
11 variance in prices. They're like 15 percent, which
12 is -- which means 85 percent of the variation in the
13 prices are unexplained by betas.

14 So, number one, betas don't reflect
15 diversifiable risk. And, number two, betas don't
16 explain the -- it doesn't -- it only explains
17 15 percent.

18 And I guess one more thing is Mr. Hinton
19 doesn't even use the beta in his analysis. He doesn't
20 use a CAPM. So how -- how much does the Public Staff
21 think of beta if they don't even use a CAPM in their
22 analysis?

23 Q. Can we agree, then, that Annie Wong of
24 Western Connecticut State University stated that

1 utility betas or risk do not decrease with the size of
2 the company? And I'm gonna quote here.

3 "These findings maybe attributed to the fact
4 that all public utilities operate in an
5 environment with regional monopolistic power
6 and regulated financial structure. As a
7 result, the business and financial risks are
8 very similar among utilities regardless of
9 their sizes."

10 That was her determin- -- I know you disagree
11 very strongly with her, but that was her determination,
12 right?

13 A. I agree with what this says, and then also
14 there was a direct rebuttal to that article that I
15 cited in my rebuttal testimony at pages 32 and 33.

16 So, I mean, it's not just me who disagrees
17 with it. There is another academic article that
18 disagrees with it. And from that article, there was no
19 response from Dr. Wong.

20 Q. Is that the Zepp article?

21 A. It is.

22 Q. All right. Well, let's talk about that.

23 Help me remember when it's time for your rebuttal to
24 talk about the Zepp article.

1 A. I mean, I would, but what -- your cross
2 exhibits are bleeding into my rebuttal testimony.

3 Q. I understand. I'm trying to keep it
4 separate, though.

5 A. So then -- then if that's the case, then --
6 well, you can ask the questions.

7 Q. So we can agree that at least one academic
8 paper disagrees with you?

9 A. Sure.

10 Q. Carolina Water is -- doesn't have a few
11 large, huge industrial customers; it's got many, many
12 small residential and small business customers, right?

13 A. I take that -- I would take that
14 characterization, but I don't know for sure. I --

15 Q. Okay. It has 56,000 customers in
16 North Carolina.

17 A. Okay.

18 Q. That's from your testimony.

19 A. Yeah. It's out of 1 point, what, 3 or
20 4 million, right?

21 Q. Of the SouthWest Water figure?

22 A. Yes.

23 Q. Well, it's not that big because they haven't
24 officially merged yet, right?

1 A. Okay.

2 Q. I would now like to talk to you about a
3 different topic, which is whether the multiyear nature
4 of this proceeding increases or decreases risk.

5 Are you okay? Are you with me?

6 A. I doubt that I'm with you, but we'll see.

7 Q. Okay. I want to move on entirely from that
8 topic. And we can go back to it if we need to, but I
9 think I'd like to move on, if you're ready.

10 A. Sure thing. Thank you.

11 Q. Okay. On this point whether a multiyear
12 gives more or less risk, you and Mr. Hinton completely
13 diverged, correct?

14 Well, let me -- let me -- let me -- how about
15 this. You thought that the return on equity should go
16 from 10.45 up to 10.7, an increase of 25 basis points;
17 and Mr. Hinton thought that there should -- go from
18 4 point -- 9.45 to 9.25, a decrease of 20 basis points.

19 A. I think that's a mischaracterization, and
20 I'll explain.

21 So when the difference between my delta
22 between the 10.45 and the 10.70, they're based on the
23 changes and projected interest rates as compared to the
24 base period.

1 So the base period I use, I use current
2 interest rates. And then the other -- the other
3 future-year periods, I use the projected interest
4 rates. And those projected interest rates are shown to
5 increase over time.

6 So that is why the Company selected a 10.70
7 on those future years, because they stayed -- they went
8 up, but then they kind of flattened out in those
9 future-year periods.

10 Mr. Hinton, he -- he decreased it because he
11 thinks that it's less risky. I did not increase my ROE
12 recommendation because of the multiyear rate plan. I
13 increased my ROE because of the change -- the
14 forecasted changes in interest rates.

15 Q. I see the difference. Thank you.

16 A. Okay.

17 Q. So you actually would put zero percent on the
18 multiyear nature of this?

19 A. I would, yes.

20 Q. He put negative 0.2 or negative 20 basis
21 points?

22 A. That's true.

23 Q. Now, is that right? Did I get it right now?

24 A. Yes.

1 Q. Okay.

2 A. The situation is correct, yes.

3 Q. All right. So if we can discuss why, in
4 fact, I think the multiyear plan reduces risk.

5 (Public Staff D'Ascendis Proposed Cross
6 Exhibit Number 5 was identified it was
7 marked when prefiled.)

8 Q. If you would turn with me to Exhibit 5 --
9 D'Ascendis Proposed Cross Exhibit 5, filed
10 November 22, 2022.

11 A. Now did you --

12 Q. It's the Fitch -- sorry.

13 A. Did you say you don't believe or Mr. Hinton
14 doesn't believe?

15 Q. The Public Staff.

16 A. Okay. Because Hinton was the one. That was
17 his testimony, right?

18 Q. I didn't mean to be casual with my pronouns.
19 Thank you.

20 A. Okay.

21 Q. If we -- you have the Fitch item in front of
22 you?

23 A. I do. Thank you.

24 Q. The first two paragraphs on the first page,

1 this is discussing Puget Energy and Puget Sound Energy?

2 A. Yes, sir.

3 Q. In Washington State?

4 A. Yes.

5 Q. Okay. You will see that Fitch states the
6 ratings outlook for both entities has been revised
7 upward from negative to stable, right?

8 A. Yes. It goes into the key rating drivers on
9 the bottom of that first page and that -- and they say
10 that Fitch believes the -- and this is the last
11 sentence on that last page.

12 It says:

13 "Fitch believes the legislation is largely
14 positive, but it is subject to interpretation
15 and implementation by the Commission."

16 So while they may be hopeful, they don't know
17 how it is in practice, it looks like.

18 Q. Well, we do know in practice what they did.
19 They revised it from sta- -- from negative to stable,
20 right? That's what they're doing in this article?

21 A. They are, but it says that it's subject to
22 interpretation. So they may have had it as stable now,
23 but depending on the interpretation and implementation
24 by the Washington Commission, they may back -- revise

1 it back down to negative.

2 Q. Well, respectfully, the only reason that
3 Fitch is saying that these two entities are less risky
4 is because of a multiyear rate plan.

5 A. But this isn't an upgrade, right? This is
6 from danger of being downgraded to okay, we'll keep
7 them at the bottom of investment grade.

8 Q. It was at negative, and now it's at stable.
9 And that's good, right?

10 A. Yup.

11 Q. That's favorable for the companies, right?

12 A. It is. But it wouldn't change their debt
13 cost rate or their cost of equity because there's no
14 change in the actual bond rating.

15 Q. If I am working for Puget Energy or Puget
16 Sound Energy, I very much want my debt rating to not be
17 negative and instead to be stable, right?

18 A. Right. But it's not -- that's not reflected
19 in, say, if Puget Sound's treasurer wants to go out and
20 get debt. They're still rated BBB minus.

21 Q. I understand.

22 A. And that's what the key is. You're still
23 getting the same -- you're still gonna get the same
24 debt at the same price at the same credit rating,

1 regardless of positive or negative.

2 Q. Let's, if we can, look at the second
3 paragraph of Exhibit 5 -- Proposed Cross Exhibit 5.

4 "PE and PSE, which is Puget Energy and Puget
5 Sound Energy, their ratings out -- their
6 rating outlooks improved as a result of the
7 Senate Bill 5295" -- this is in Washington,
8 right -- "which was signed into law in
9 May 2021. The legislation allows for
10 multiyear rate plans reducing regulatory
11 lag."

12 A. I agree.

13 Q. That's what Fitch thought about multiyear
14 rate plans.

15 A. I agree that they reduce regulatory lag.
16 It's a relative risk measure, which I did a survey of
17 the companies in the Proxy Group, and the companies, by
18 and large, had either multiyear rate plans or fully
19 forecasted future test years.

20 Q. Reducing regulatory rate lag is good for the
21 companies, correct?

22 A. Absolutely.

23 Q. It's good for the ability of companies to
24 borrow money?

1 A. If they -- I mean, it's better for the
2 company and it's better for the customers, because
3 they're more able to forecast revenues and expenses.

4 Q. How about this hypothetical, Mr. D'Ascendis?
5 If you have \$100, and you can pick between two
6 identical companies and you can invest in either one,
7 and one company -- the only difference in the companies
8 is that one has the ability to get multiyear -- to
9 enter into multiyear rate plans, and the other one does
10 not, you're gonna go with the multiyear rate plan,
11 right?

12 A. Right. But, in reality, every single one of
13 the proxy group companies have some form of either
14 multiyear rate plans for a future test year.

15 So because of that -- so your hypothetical
16 may be correct in a perfect world, when all else is --
17 the one is unequal. But because of the companies that
18 are subsumed in mine and Mr. Hinton's proxy group, they
19 all contain these type of mechanisms that, frankly, are
20 the same.

21 So you're not picking between one and the
22 other. You're picking through all of them that have
23 the same risk when it comes to forecasting revenues,
24 expenses. And some of these MYRPs have true-ups behind

1 them and decoupling mechanisms, which make them even
2 less riskier than the Company in this case.

3 So there's a lot of different things that you
4 have to think about when you talk about risk and
5 return. And the key is relative risk.

6 And what I see and from what I did with my
7 study and what Mr. Hinton didn't do in his study, he
8 didn't do a survey. I'm the only one, only party in
9 this proceeding, that went and went through each of the
10 parent companies of the Proxy Groups and determined
11 whether or not they had an equivalent mechanism or
12 plan, and it shows that it's reflected in the Proxy
13 Group prices.

14 So because of that, that relative risk
15 adjustment, that ROE adjustment, it would be subsumed
16 in the market data of the proxy group.

17 Q. All right. That was not quite my question,
18 so -- I understand, though.

19 We can agree, all things being equal, Fitch,
20 you, Mr. Hinton believe, if I've got that \$100 and can
21 invest in either company and everything else is
22 identical, you're going to pick the multiyear.

23 A. Agree.

24 Q. And I understand there's a longer answer that

1 you just gave.

2 A. And that's why I'm just saying "agree" --

3 Q. Okay.

4 A. -- this time.

5 Q. Okay. So here's my next question, which is
6 what I was trying to get to.

7 In order for you to pick the company that
8 doesn't have a multiyear, they'd need to up their
9 return on equity, right?

10 A. There's a lot of moving parts to that
11 question. But generally, if all else is equal and all
12 of the management and all that stuff is equal, the same
13 jurisdiction, things like that, they would be riskier
14 and hence reflective -- based on what I just said with
15 the relative risk adjustment, they would need a higher
16 rate of return to get my dollars.

17 Q. So you're gonna put them with the multiyear,
18 all else being equal, unless the single year is higher?

19 A. I was gonna say, maybe I'm a risk-taker. If
20 they give me a higher rate of return, maybe I'll take
21 it.

22 Q. Right. You want the higher rate of return.

23 A. Right.

24 Q. Okay.

1 A. But, like I said, all that hypothetical falls
2 apart in the face of the Proxy Group data.

3 Q. I understand that.

4 A. Okay.

5 Q. Okay. So let's talk about the, sort of,
6 impact of a multiyear rate plan, sort of, in more
7 detail.

8 The legislation here in North Carolina was a
9 pretty substantial change, because before, when
10 Carolina Water made a capital improvement or capital
11 investment project, it could only be recovered after it
12 was placed into service and there had been a -- a rate
13 case had been filed and the Commission had allowed
14 them. But now the expense is recoverable on the first
15 day of the year in which that asset is forecast to come
16 into service.

17 So if we fast-forward to it's -- if we
18 forecast that something is gonna come into effect
19 November 28, 2024, ratepayers are gonna start paying
20 for that asset on April 1, 2024, which is the start of
21 the year.

22 A. You mean before it's put into service?

23 Q. Yeah.

24 A. So I don't know if your -- the beginning of

1 your question is correct. Didn't Carolina Water
2 Service have an infrastructure replacement rider before
3 this?

4 Q. I'm talking about just the effect of the
5 multiyear on replacing what the -- I'm not talking
6 about, like, WSIC and WSIP and all those other -- WSIC
7 and SSIC. I'm just talking about how it used to work.

8 A. Right. But if you -- if you put it -- but I
9 don't know how this -- I don't know how it works, but I
10 thought they had an infrastructure rider beforehand
11 which was able to recover the capital -- capital costs
12 in between rate cases.

13 They didn't have to file a rate case to get
14 that, right? Is --

15 Q. And stuff like --

16 A. I'm not entirely sure, but I --

17 Q. I understand.

18 A. -- thought that's something --

19 Q. I understand what you're saying now. If they
20 filed the rider. If they filed a -- let's say "filed a
21 document." Let me put it a little more generically.

22 A. Okay.

23 Q. Right? Then they could recover.

24 A. Okay. So it's -- I think it's different than

1 what it is now, right, if it's approved. But I do
2 think they had -- they were able to recover some
3 capital costs in between rate cases if they needed to.

4 Q. So assume with me that, now that you can
5 recover those costs before it goes into service and
6 without having to file another document -- and I --
7 just take my word for it, as a hypothetical.

8 A. Sure.

9 Q. That is a favorable thing for a company.

10 A. Right. But then, like I said, you have to
11 look at it relative to the other companies.

12 But I would say, generally, what you're
13 saying is true. It's beneficial for the company to get
14 revenue faster and -- than not getting it, right?
15 That's the definition of a lag.

16 So I agree with that. It's just the issue is
17 more the -- what does the other companies -- what do
18 those companies have. And that's where you take your
19 risk assessment.

20 Q. Understand. I'd like to look at another
21 benefit of multiyears, which is rate -- excuse me --
22 rate case expenses.

23 A. I don't like that.

24 Q. Okay.

1 A. Because I -- because --

2 Q. I know. I can imagine.

3 A. You understand.

4 Q. So let me start back --

5 A. You understand.

6 Q. Carolina Water has filed rate cases in
7 March of 2017, April 2018, June 2019, July 2021, and
8 then this one in July of 2022.

9 A. Right.

10 Q. So each of those cases costs money and time.
11 Experts, attorneys, administrative, corporate time,
12 right?

13 A. Yes, sir.

14 Q. And we put all that expense into a basket and
15 we call it "rate case expenses."

16 A. Yes, sir.

17 Q. The most recent rate case expense from
18 July of 2021, \$492,515. The one from June 2019,
19 \$519,000. The one from April 2018, \$395,000. And the
20 one from March 2017, \$424,000.

21 If you average those five years, that's
22 \$457,936.50 in rate case expenses.

23 A. Okay. I'll take your word for it.

24 Q. Does that sound so unreasonable that you

1 clearly can tell me that I'm wrong?

2 A. No. I'm sure they pale in comparison to,
3 say, Duke and those other folks.

4 Q. If Carolina Water has filed five rate cases
5 in the last six years, they stuck to that average over
6 the next two -- over the next multiyear -- over the
7 horizon of the multiyear plan, they could file two or
8 three rate cases, but instead they won't do that,
9 because they have the multiyear.

10 A. It depends if they under-earn, correct?

11 Q. If they --

12 A. Because there's something in that rule where,
13 if you go over the band, it goes all -- all of the
14 excess profits go to the customers, and then there's no
15 downside protection for the Company on the other end.

16 Q. If it works as it's supposed to work,
17 Carolina Water won't have to come in again.

18 A. Yes.

19 Q. And thereby they could avoid, what, \$900,000
20 to \$1.3 million in rate case expenses?

21 A. And that's good for both the Company and the
22 customers, and I agree with that.

23 Q. And that is good for the Company and the
24 customers.

1 And, again, you're that hypothetical investor
2 with \$100, everything else is equal, but this company's
3 gonna spend a million bucks less, you're gonna put your
4 money in it, right?

5 A. It's another one of those things where all of
6 those other companies have that same paradigm, right?
7 And they have -- I'm not gonna say "better," but they
8 have true-up mechanisms behind it, so they're protected
9 on the bottom side.

10 So if they go under a band or if they go --
11 if they don't earn their rate of return, their dollars
12 true up. And in North Carolina, they do not. So that
13 provides an extra piece of risk for the Company, as
14 opposed to the other companies that are in my proxy
15 group.

16 I didn't reflect that risk in my ROE.

17 Q. Okay.

18 A. Okay? But there is a risk there.

19 Q. I think my question was more narrow, which
20 is: A company that has a million extra dollars is more
21 attractive to investors?

22 A. I started with "yes" and then went --

23 Q. Okay.

24 A. -- went on.

1 MR. FREEMAN: If I could have one
2 moment, Commissioners?

3 COMMISSIONER CLODFELTER: Sure.
4 (Pause.)

5 MR. FREEMAN: Thank you, Commissioners.

6 Q. Mr. D'Ascendis, I'd like to move on to
7 another topic and talk about your return on equity
8 testimony. Again, 10.45 for the first year and 10.7
9 for rate years -- for the next three rate years, right?

10 A. That's right.

11 (Public Staff D'Ascendis Proposed Cross
12 Exhibit Number 6 was identified as it
13 was marked when prefiled.)

14 Q. Okay. And if you'd look with me at
15 Exhibit 6.

16 A. All right. I have it.

17 Q. We calculated the dollar impact of 9.25 and
18 the 10.4/10.7 here in this. Do you understand?

19 A. I don't understand how -- I can't verify any
20 of these numbers, because I only -- I only do the
21 percentages. I don't run it through the revenue
22 requirement model.

23 So I couldn't say any of these numbers are
24 accurate, generally. But I would agree, say, that

1 moving the ROE from 9.25 to 10.45 would result in a
2 higher revenue requirement.

3 Q. Okay. And in this case, \$6,762,088.32 over
4 the whole period -- right? That's all the years
5 together -- is the number that we came up with. And by
6 "we" I mean the Public Staff.

7 A. Right. I wouldn't know whether or not that
8 number is accurate, just based on disagreements between
9 the parties and whether or not some would be disallowed
10 or subsequently corrected or anything like that, or any
11 type of adjustments to the formula.

12 Like I said, I don't have any familiarity, so
13 I can't say yes, that 6.7 is right or not right.

14 Q. Mr. D'Ascendis, you are -- you are making me
15 feel eerie because I had the same thoughts you did.
16 And these numbers came from the stipulated agreement.
17 That's where they came from.

18 A. Okay. Well, like I said, I don't -- I don't
19 know. I mean, with this, we didn't get any back-up
20 Excel spreadsheets or anything like that, so.

21 Q. I understand totally. I just --

22 A. Yeah.

23 Q. I had the same thoughts as you. I thought
24 that was kind of interesting.

1 A. Yeah. I'm not an accountant, so I'm like --

2 Q. All right. That's enough.

3 Let's talk about your use of the DCF model,
4 and I think that's around page 30 of your testimony.

5 A. Direct testimony, correct?

6 Q. I'm trying to stick with just direct, but --
7 we can bleed over a little bit, but --

8 A. No, no. It's fine. I just want to make sure
9 I'm where you are.

10 (Witness peruses document.)

11 Okay. I'm there.

12 Q. And this is, sort of, a theory that investors
13 are going to purchase or invest in a company because of
14 a stream of dividends, right?

15 A. Yes, sir.

16 Q. And it's -- is it a common method?

17 A. Yes.

18 Q. Okay. The two smallest companies -- and I
19 know they change in your rebuttal testimony, but the
20 two smallest companies, Middlesex and York, have
21 returns of 4.81 percent and 6.83 percent in your --
22 in -- if you look at your Exhibit 1.

23 A. (Witness peruses document.)

24 There is something where, in my rebuttal

1 testimony -- and I'm just gonna say it.

2 Q. You take one out?

3 A. Yeah. I take one out, because the indicated
4 ROE is less than the A-rated bond, and because it's
5 general common knowledge that the marginal cost of
6 equity is more expensive than the marginal cost of
7 debt, it's nonsensical. In this case, I kept it in,
8 because the A-rated bond was not at that level at that
9 point.

10 Q. It changed. It changed between when you
11 filed and when you rebutted, correct?

12 A. Right. So --

13 Q. So if we just look at Middlesex,
14 4.81 percent, is that your -- that was your
15 determination, right?

16 A. That's right.

17 Q. Certainly you don't think 4.81 percent is a
18 good return on equity in this case, do you?

19 A. Well, that's why you use a proxy group,
20 right?

21 Q. Right.

22 A. So you have -- you have your companies, and
23 they're gonna -- even though they're similar in risk,
24 right, they're all water companies, they're gonna spit

1 out varying rates of return. And then from that noise,
2 you get the signal. And then -- and that's why I use
3 the mean and the median to get to that 9.37 in my
4 direct.

5 Q. Well, before we get to the 9.37, the average
6 of the proxy group in your direct -- I know it changed
7 in rebuttal, but in your direct, 9.03.

8 A. That's right.

9 Q. Much closer to Mr. Hinton's number than your
10 number, correct?

11 A. Right. But, like I said, Mr. Hinton includes
12 several indicated rates of return that are below the
13 A-rated bond.

14 Q. Is one of the problems you have with Mr. --
15 well, I'll save that. I'm sorry.

16 Do you -- do investors consider historical
17 data when -- when you're doing a DCF, discounted cash
18 flow model analysis, do you use future data or
19 historical?

20 A. You use future, because the cost of capital
21 is prospective in nature. And then, further, if --
22 say, if you look at the forecasted earnings per share
23 growth rates, just like I do in my testimony, those
24 analysts take history into account in addition to

1 interviews with management, all the other earnings
2 calls that they have.

3 And if you take and you use the historical
4 growth rates with your projected growth rates,
5 effectively you're double-counting the analysts' work
6 that they've already done.

7 Q. So can we agree that, actually, historical
8 data is important?

9 A. To inform the analyst-projected growth rate,
10 yes.

11 Q. Okay. All right. I want to say -- I'm
12 trying not to bleed over into rebuttal, too, so let
13 me -- we'll come back to this a little bit more when
14 you're back on the stand, if you don't mind.

15 A. Sure.

16 Q. Let's talk about your predictive risk premium
17 model.

18 A. Okay.

19 Q. Which is a model that you based on an article
20 written by you, I noticed.

21 A. So it's not based on -- the article is based
22 on -- the model is based on the GARCH-in-mean model,
23 which was pioneered by Dr. Engle, and we applied it to
24 utility companies.

1 So it's the GARCH-in-mean model. We just put
2 a new name on top of it.

3 Q. Well, I'm gonna have to start calling you
4 professor, right?

5 A. I'm not there yet.

6 Q. The predictive risk premium model believes
7 that historical volatility can be used to predict
8 future volatility?

9 A. That's correct.

10 Q. So you performed this evaluation analysis on
11 the proxy companies -- seven of them, in this case --
12 right?

13 A. Yes.

14 Q. Okay. And it gives -- it spits out a pretty
15 large number, doesn't it?

16 A. (Witness peruses document.)

17 It's higher than my recommended rate of
18 return in this case, yes.

19 Q. If you would look with me at DWD-4 of your
20 direct testimony on page 2 of 16?

21 A. Yes, sir.

22 Q. There are seven companies in the proxy group,
23 correct?

24 A. Yes, sir.

1 Q. American States Water Company; American Water
2 Works Company, Inc.; California Water Service Group;
3 Essential Utilities, Inc. -- that's Aqua, right?

4 A. Yes.

5 Q. -- Middlesex Water Company; SJW Group; and
6 the York Water Company?

7 A. Yes, sir.

8 Q. But you didn't perform this analysis for
9 American Water Works Company, Inc.?

10 A. Well, I did. I put a nonmeaningful figure
11 there because it was over 19 percent, and I didn't
12 think that 19 percent is a -- it fails an outlier test,
13 a two-tail -- a two-tail test.

14 Q. Well, yeah. It's 19.23 percent, if I did the
15 math right.

16 A. Yeah. So I excluded it because it failed a
17 two-standard-deviation test. So if you take the
18 average and you run a standard deviation and then you
19 put two standard deviations off the mean, that 19 is
20 over the two standard deviations, so I got rid of it.

21 Q. And if we carried it forward to 2023, it
22 would have been 20.07; 2024, 20.04; and 2025,
23 20.34 percent return on equity, right?

24 A. Yes.

1 Q. So your model failed with respect to
2 one-seventh of the companies you applied it to?

3 A. It's not a failure. It's one of those --
4 it's a result that I don't deem reasonable. It may or
5 may not prove to be true. It's a prospective model.

6 And if you look at the stock price of
7 American Water Works, it has gone up significantly.
8 And it may or may not, but I wasn't gonna use it in my
9 analysis.

10 Q. In your direct testimony, where did you
11 discuss the decision to not use American Water Works
12 Company?

13 A. I didn't.

14 Q. You just had to hump through this teeny-tiny
15 print and figure it out?

16 A. It's not teeny-tiny.

17 Q. Okay. I understand.

18 There's also a method called the total market
19 approach risk premium model that you use?

20 A. Yes, sir.

21 Q. And that's where you take the entire market
22 equity risk premium and the equity risk premium for the
23 S&P utilities index, right, and then you add on an
24 interest rate?

1 A. Try it again.

2 Q. You have an interest rate component, and then
3 you have a sort of -- I guess you'd call it a risk-free
4 utilities -- a risk-free market component?

5 A. It's an equity risk premium added to a
6 utility bond.

7 Q. Okay. Utility bond?

8 A. Yes.

9 Q. It relies on interest rates in the future?

10 A. The base year does not. The base year is the
11 last three months, and then the other ones are -- the
12 projected ones are -- the projected interest rates are
13 based on projections from blue-chip and some relative
14 spreads between AAA-rated and A-rated bonds.

15 Q. Do you have Mr. Hinton's testimony with you?

16 A. I do.

17 Q. His direct, not his panel testimony?

18 A. Yes, sir.

19 Q. If we can look at -- let's start on page 37.

20 A. (Witness peruses document.)

21 I'm there.

22 Q. Oh, sorry. Okay. And if you'd like to, we
23 can also look at page 20 at the same time. And I'd
24 like to use these two pages to talk about the dangers

1 of forecasting interest rates into the future.

2 A. This is gonna bleed into my rebuttal
3 testimony, but go ahead.

4 Q. Okay. Well, we can pause it and talk about
5 it when you come up.

6 A. No, go -- we could --

7 Q. All right. Well, Mr. Hinton said it in his,
8 so we'll talk about it with you then.

9 The interest rates in the Carolina Water case
10 W-354, Sub 360, you predicted interest rates would rise
11 to 3.8 percent by the third quarter of 2019, but, in
12 fact, they averaged 2.29. That's from page 20.

13 And from page 37, that's W-354, Sub 364,
14 127 basis points. So we were 151 basis points off and
15 then 127 basis points off guessing about future
16 interest rates.

17 A. Sure. There's two things -- two responses to
18 that. The first one is it doesn't -- it doesn't
19 particularly matter whether the interest rate
20 projections are accurate or not. It's -- it's
21 important that there's -- those projections are
22 investor-influencing.

23 So when you look at blue chip financial
24 forecasts, the federal government uses those

1 projections in some of their projections, and those are
2 the best projections that we have at this time.

3 The second thing -- and I go over this in my
4 rebuttal testimony -- is that current interest rates
5 are no better at projecting the future interest rate
6 and the rate of return -- future interest rates,
7 either. So in my testimony, I used both.

8 And I think Chair Mitchell, actually, was the
9 one who got me to do both, and I think it was probably
10 the 2018 case. And I agree with her, because both of
11 those measures have their drawbacks. Both of them are
12 worth consideration in this type of exercise.

13 Q. All right. I understand.

14 The two methods I just discussed, not the DCF
15 but the total market approach risk premium model and
16 the predictive risk premium model, are less commonly
17 used, correct?

18 A. Risk premium models, in general, are commonly
19 used in places -- in regulatory proceedings and in
20 investor actions. So I wouldn't say one's more or less
21 used than the others.

22 Q. The two that I just mentioned, the exact
23 model that you chose to pick, the one based on your
24 article, that, itself, is not as commonly used outside

1 of -- not commonly used, right?

2 A. It was accepted in this case in 2018, which
3 is fully litigated, in my CAPM and in my risk premium
4 model.

5 And I could -- if I -- if you want me to pick
6 out the -- pick out the docket number, the Commission
7 approved my CAPM and my risk premium analysis that used
8 the PRPM in their -- in their recommended ROE.

9 Q. I'd like to talk about what the Commission's
10 orders have said about CAPM and your models in a
11 moment.

12 A. Okay.

13 Q. But the capital asset pricing model, can we
14 talk about that?

15 A. Sure.

16 Q. That is -- one of the critical components
17 there is the expected long-term rate of return on the
18 market?

19 A. You said the long-term rate of return on the
20 market?

21 Q. Right.

22 A. Yes.

23 (Public Staff D'Ascendis Proposed Cross
24 Exhibit Number 9 was identified as it

1 was marked when prefiled.)

2 Q. And if you look with me at Exhibit 9, you
3 used -- one of your many methods was to look at the
4 S&P 500?

5 A. Yes. Give me a second. I got to do a little
6 clean-up here.

7 You said -- your cross Exhibit 9, sir?

8 Q. I should have been more precise. Thank you.

9 A. Okay.

10 Q. Yes.

11 A. Hold on. That's a little easier with no
12 cleaning up.

13 Okay. I have it, sir.

14 Q. I'm not trying to rush you, Mr. D'Ascendis.
15 You can take all the time you need.

16 A. No, no. That's -- when you said Exhibit 9, I
17 was like, I don't have an Exhibit 9. So we're good.
18 Go for it.

19 Q. Measure 5 here in Exhibit 9, 16.42 percent
20 was the total return based on the S&P 500?

21 A. And this is my -- this is based off my
22 rebuttal exhibit. Give me a second.

23 Q. It's also found, if you'll look, at DWD-1R.

24 A. Just give me a second.

1 Q. Okay.

2 A. (Witness peruses document.)

3 Never mind. You're right. It's DWD-5,
4 page 5 of my direct.

5 Q. Okay.

6 A. I was looking at the one that's not bolded
7 and boxed, so I apologize.

8 Q. Don't apologize. We're all here together
9 trying to figure it out.

10 Okay. But this is an excerpt from that,
11 because I -- this is a larger part of that exhibit?

12 A. Yes.

13 Q. And you thought the S&P 500 was gonna be
14 16.42 percent?

15 A. Now, if you look at my -- if you look at the
16 average of the six -- right? So I -- I have used six
17 measures. I did not use one. I did not use two. I
18 used six.

19 And if you look at the six measures, and the
20 average of that and the average MRP based on that, it's
21 not different than -- it's at the 49th percentile of
22 all market risk premiums over the last -- 1926 to
23 19- -- or 2021.

24 So, I mean, if you look at one, there might

1 be one high, one low, whatever, what may have you. But
2 all in all, my final answer, my final -- my final
3 recommended MRP is comparable with historical measures.

4 Q. Well, I'm just talking about the ingredients
5 that make up the cake.

6 A. I understand. But you don't eat raw eggs.
7 You eat the cake.

8 Q. Okay. Well, let's talk about this particular
9 raw egg, 16.42.

10 (Public Staff D'Ascendis Proposed Cross
11 Exhibit Number 8 was identified as it
12 was marked when prefiled.)

13 Q. And if we flip back to Exhibit 8, which is
14 the newspaper from the day we filed, which is right
15 there also, but Exhibit 8 has the S&P 500 at
16 8.4 percent, about half of what Exhibit 9 says.

17 A. Say that again.

18 Q. Exhibit 9 has 16.42 percent, and Exhibit 8
19 identifies the S&P 500 as having 8.4 percent.

20 A. Can you point me to that?

21 Q. If you look at the -- see it says on the left
22 side, underneath the charts, Dow Jones, S&P, S&P Index,
23 and you follow it across with your finger? And I'll
24 get the newspaper for you.

1 MR. FREEMAN: If I can approach,
2 Commissioners?

3 COMMISSIONER CLODFELTER: You may.
4 (Pause.)

5 THE WITNESS: What is that, the
6 three-year average return? And that's a geometric
7 average, which isn't appropriate for cost of
8 capital purposes, because it takes out all of the
9 variance in those returns.

10 So that number, that 8.4, first of all,
11 isn't projected, and, second of all, isn't
12 applicable because of the use of a geometric mean
13 data.

14 Q. We can agree that that particular component
15 of your model is high?

16 A. No.

17 Q. So you do think that the S&P 500 can return
18 16?

19 A. Yes. Its return -- the average is 12. The
20 last 10 years it's been 16, this year uninclusive.

21 Q. This year uninclusive?

22 A. Right.

23 Q. Okay. All right.

24 I'd like to talk about some of the orders

1 that have addressed the issues we've talked about
2 today.

3 A. And we're done with 8 and 9, I assume?

4 Q. We are done with 8 and 9. Thank you.

5 COMMISSIONER CLODFELTER: Mr. Freeman,
6 is it possible to get a more legible copy of 8? I
7 know it's a photocopy of a newspaper --

8 MR. FREEMAN: If I may approach?

9 COMMISSIONER CLODFELTER: -- which is
10 difficult, but it's very hard to read the shaded
11 columns.

12 MR. FREEMAN: (Handing.)

13 COMMISSIONER CLODFELTER: That's fine.
14 Do you think it's possible to get a better copy
15 substituted for the record?

16 MR. FREEMAN: Yes.

17 COMMISSIONER CLODFELTER: I mean, you've
18 got this, but we need to make sure the witness and
19 the court reporter have legible copies also.

20 MR. FREEMAN: We will make a better
21 copy, Commissioner.

22 COMMISSIONER CLODFELTER: We'll do that.
23 All right. Thank you.

24 Proceed. I'm sorry to interrupt your

1 questioning.

2 MR. FREEMAN: No, I appreciate your
3 keeping the record literally clean.

4 Q. We are gonna discuss some of the orders.

5 A. Yes, sir.

6 Q. If you need a minute to collect yourself.

7 A. I think we're good. I don't want to put my
8 papers on the Bible anymore.

9 All right. We're good.

10 Q. All right. If you would look with me at the
11 final exhibits here.

12 MR. FREEMAN: Excuse me one minute.

13 (Pause.)

14 MR. FREEMAN: Thank you for your
15 patience.

16 (Public Staff D'Ascendis Proposed Cross
17 Exhibit Number 17 was identified as it
18 was marked when prefiled.)

19 Q. If you will turn with me to, oh, Exhibit 17,
20 which is the start of the last -- the last three
21 exhibits are various orders from -- 17 is from the
22 Virginia State Corporation Commission.

23 A. Now, this order, I wasn't a witness in the
24 case and it wasn't in this jurisdiction.

1 Q. I completely understand.

2 A. Okay.

3 Q. If you would look with me at -- on the
4 bottom, they are numbered pages 4 and 5.

5 A. (Witness peruses document.)

6 Sure.

7 Q. Okay? Thank you.

8 I'm not -- I'm not trying to rush you,
9 Mr. D'Ascendis. I know you probably haven't studied
10 these.

11 At the bottom of page 4, the sentence that
12 starts "as the" -- the last line.

13 You see:

14 "As the Commission has previously stated,
15 using only earnings per share as the measure
16 of long-term growth results in unreasonably
17 high growth rates that upwardly skew
18 results."

19 A. And that's not this Commission and not
20 somebody -- and somebody else's testimony, right?

21 Q. Totally true.

22 A. Okay.

23 Q. "Virginia explicitly rejected the use of
24 projected interest rates in prior cases."

1 That's on page 5 in the middle.

2 A. Again, another commission on another case
3 with me not being the witness.

4 Q. Right.

5 A. Okay. And I guess I could add that I use
6 current interest rates in this case.

7 Q. I understand.

8 A. Okay.

9 Q. Well, you projected them out for years one,
10 two, and three, right?

11 A. Well, it shows -- the Company projected out
12 their expenses and revenues, correct?

13 Q. Absolutely.

14 A. Okay. So the rate of return would also
15 reflect the forward nature of that.

16 Q. You're making your best guess about what you
17 think the interest will be in 2025?

18 A. Well, it's not my best guess. It's the
19 economists that are paid to do these things.

20 Q. It was humanly possible for you to have used
21 the interest rates that exist today or 2 percent or any
22 number. You chose to use the best guess of economists
23 into the future?

24 A. That's right.

1 Q. Okay. And page 5:

2 "In this case, the Company exclusively used
3 earnings per share as a measure of long-term
4 growth to develop the market risk premium
5 component of its CAPM analysis, which results
6 in an overstatement of the cost of equity."

7 A. Again, that's -- first of all, that's not my
8 exclusive use. Second of all, this isn't -- I mean,
9 it's all the same. It's not -- I don't think it's
10 relevant.

11 (Public Staff D'Ascendis Proposed Cross
12 Exhibit Number 18 was identified as it
13 was marked when prefiled.)

14 Q. Okay. Let's talk then about Exhibit 18,
15 which is North Carolina.

16 A. (Witness peruses document.)

17 All right. I'm the witness in this one, so
18 let's see what they say.

19 Q. North Carolina and you're the witness.

20 A. All right.

21 Q. Okay. If you will flip with me to -- well,
22 now I've gotten out of order. If you will flip with
23 me -- well, good. I'm glad it's not just me -- to, the
24 bottom of the page is 74. "In addition" is at the top

1 left of it.

2 A. You said 70 -- oh, yeah, top of 74. Yeah.

3 Go for it.

4 Q. The page number at the bottom is 74, even
5 though it is not the 74th page. The top -- first two
6 words on the top of the page are "in addition."

7 A. Yes, sir.

8 Q. And this is Exhibit 18.

9 A. I'm ready.

10 Q. The bottom paragraph says:

11 "The uncontroverted evidence is that both
12 Carolina Water," CWSNC, Carolina Water, "and
13 the Public Staff used utilities capital
14 structure"?

15 A. Yes, sir.

16 Q. "It obtains all of its debt" -- "Carolina
17 Water obtains all of its debt and equity from
18 its parent Company."

19 Correct?

20 A. Yes.

21 Q. And if we turn the page, "based on the
22 foregoing"? This is that 0.14 percent that we
23 discussed.

24 A. You mean --

1 Q. The 0.4.

2 A. -- the 0.4 -- yeah, yeah.

3 Q. The size adjustment that we discussed
4 earlier.

5 A. I understand what you're saying.

6 Q. And the size adjustment was rejected in that
7 case?

8 A. It was.

9 (Public Staff D'Ascendis Proposed Cross
10 Exhibit Number 19 was marked for
11 identification.)

12 Q. Okay. If you'll turn with me to Exhibit 19.

13 A. Now, this is a settlement that I'm not the
14 witness on either, right?

15 Q. No, Mr. Hevert. Is that correct?

16 A. That's right.

17 Q. I think you worked with him?

18 A. I did.

19 COMMISSIONER CLODFELTER: Just a second,
20 Mr. Freeman. Some of our books have a 19 and some
21 do not. Some stop at 18.

22 COMMISSIONER McKISSICK: 2017 order.
23 2017. It was heard then.

24 COMMISSIONER CLODFELTER: We're gonna

1 take a break shortly here for the court reporter.
2 During the break, we need you to make sure all the
3 exhibit books are complete. Okay?

4 MR. FREEMAN: Thank you.

5 COMMISSIONER CLODFELTER: Proceed.

6 Q. This is an order -- exhibit dated
7 23rd February 2018 not involving you.

8 A. Yes.

9 Q. And if you look with me at page 85:
10 "Witness Hevert's risk premium component of
11 the CAPM uses a constant DCF for the S&P 500
12 companies using analysts' projected earnings
13 per share forecasts as the growth component."
14 Do you see where I am?

15 A. No.

16 Q. Are we on Exhibit 19?

17 A. We are, page 85. Which paragraph, sir?

18 Q. The second -- the first full paragraph.

19 A. Okay.

20 Q. The last -- let me just read the last
21 sentence of the first full paragraph, "Witness Hevert's
22 DCF." Do you see that sentence?

23 A. Okay. I'm there.

24 Q. "Witness Hevert's DCF dividend growth

1 component, based solely on analysts' earning
2 per share growth projections without
3 consideration of any historical results, is
4 upwardly biased and unreliable."

5 A. Correct. But, like I said, I use six
6 different, and I take into account historical risk
7 premiums. It's my first -- measure one of my -- of my
8 risk -- market risk premium analysis.

9 So, like I said, this doesn't apply, because
10 you're talking about an egg and I'm talking about the
11 cake.

12 Q. Okay.

13 (Public Staff D'Ascendis Proposed Cross
14 Exhibit Number 20 was identified as it
15 was marked when prefiled.)

16 Q. "A similar" in Exhibit 20.

17 "A similar rejection of DCF dividend growth
18 is upwardly biased and unreliable based
19 solely on" --

20 This is on page 63 at the top, partial
21 paragraph, the final sentence of that paragraph.

22 The whole sentence:

23 "Witness Hevert's DCF dividend growth
24 component, based solely on analysts' EPS

1 growth projections without consideration of
2 any historical results, is upwardly biased
3 and unreliable."

4 Almost identical language to the prior order.

5 A. I disagree with what they say in the order.

6 If you -- if you look at a study, there's a
7 study by Easton and Summers, and some of the -- some of
8 the intervening witnesses talk about it in some other
9 cases. If we're bringing up other cases, we'll bring
10 this one up.

11 And they talk about the analysts' accuracy
12 and analyst bias in their reporting of the EPS growth
13 rates. And they say that, on average, the EPS growth
14 rates are overstated by, I think, 2 or 3 percent.

15 What the authors come up with, they say
16 analyst bias -- bias goes down and accuracy increases
17 as the size of the company is -- grows. So the bigger
18 the company, the more accurate the analyst growth rate
19 and the less biased the analyst growth rate is.

20 So I don't agree with the Commission in these
21 last couple of cases, because there's academic articles
22 that show that as the companies get bigger -- and the
23 S&P are the biggest companies in the country -- those
24 growth rates are both accurate and unbiased.

1 Q. Thank you.

2 MR. FREEMAN: Commissioner, I only
3 mention this because you thought it might be an
4 appropriate time for a break, but I was gonna move
5 on to another topic.

6 COMMISSIONER CLODFELTER: Let's do take
7 our break and give the court reporter and all of us
8 a stretch break. We'll come back at 3:45.

9 And if I could ask Mr. Freeman, during
10 the interim, again, we've got some books that go
11 through Exhibit 20 and some that stop at
12 Exhibit 18. So we just may need you to confirm
13 that all exhibit books are complete during the
14 break. Okay?

15 MR. FREEMAN: Thank you very much.

16 COMMISSIONER CLODFELTER: We'll be in
17 recess until 3:45.

18 (At this time, a recess was taken from
19 3:35 p.m. to 3:47 p.m.)

20 COMMISSIONER CLODFELTER: Let's come
21 back to order and continue.

22 Mr. Freeman, you're still up.

23 MR. FREEMAN: Thank you, Commissioner.

24 Q. Mr. D'Ascendis, if you'd like to proceed?

1 A. Sure.

2 Q. You use a nonregulated proxy group in one of
3 your analyses?

4 A. Yes, sir.

5 Q. It included like Northrop Grumman, UPS, Eli
6 Lilly, lots of companies that aren't regulated, right?

7 A. That's right. And the selection criteria is
8 based on betas, which we established is market risk,
9 and the standard error of that regression, which
10 measures nonmarket risk.

11 Q. None of the ones in that -- in that group are
12 regulated, correct?

13 A. No. It's a -- there's a specific criterion
14 that they're not -- that they're not regulated.

15 Q. Also, they're not monopolies, correct?

16 A. No, they are not.

17 Q. And water is an absolutely vital and
18 essential service, correct?

19 A. I agree with that.

20 Q. Different than the others?

21 A. Yes. And if you -- like I said, if you look
22 at the definition of "total risk" being market risk
23 plus not market risk, which is systematic/unsystematic
24 risk, you get the total risk.

1 So if you have similar ranges of betas and
2 the standard error of the regression, you would have a
3 company of similar risk. And that's -- and that's
4 where I base my selection criteria on.

5 Q. Thank you.

6 A. Yes.

7 Q. We -- excuse me one minute, Mr. D'Ascendis.

8 A. Sure.

9 (Pause.)

10 Q. We were talking a minute ago, Mr. -- thank
11 you for your patience.

12 A. Sure.

13 Q. Thank you.

14 We were talking a minute ago about that you
15 had actually done an R-square and a regression
16 analysis, not in this context but in -- on other --
17 when performing your other evaluations of the stocks,
18 correct?

19 A. Are you talking about the general proposition
20 that R-squares for betas --

21 Q. Yes.

22 A. -- are less than around 15 to 20 percent?

23 Q. Yes.

24 A. Yes.

1 Q. Okay. That means, what, 85 percent is not?

2 A. That's right.

3 Q. So your -- the proxy -- the nonregulated
4 proxy group with UPS -- US -- United Parcel Service,
5 Northrop Grumman, and all those, 85 percent of it
6 wouldn't be captured by your beta comparisons, correct?

7 A. Well, if you're gonna accept beta as a risk
8 measure, then you would accept it as a measure of
9 market risk.

10 Q. But if I'm Mr. D'Ascendis from 30 minutes ago
11 and I said that it doesn't capture but a small
12 percentage, then I would have an issue with it?

13 A. I still use the CAPM, so I do believe that
14 it's a measure. It's an imperfect measure, and that's
15 why you have to use multiple models in your analysis.

16 Q. Thank you.

17 A. Like I said, just to follow along, if you
18 look at that DWD-1, page 2 of 2, you'll see that the
19 non-price regulated group results are within the range
20 of my other three results. It's not an outlier, at
21 least in my direct testimony.

22 Q. Okay. I would like to talk about your track
23 record.

24 If you would look with me at Exhibits 16 and

1 1.

2 (Public Staff D'Ascendis Proposed Cross
3 Exhibit Numbers 1 and 16 were identified
4 as they were marked when prefiled.)

5 COMMISSIONER CLODFELTER: You're looking
6 at two exhibits together?

7 MR. FREEMAN: They will both be
8 discussed, but I thought we could sort of have our
9 finger on one and flip back and forth.

10 COMMISSIONER CLODFELTER: Okay. So
11 we're looking at both Exhibits 1 and 16.

12 THE WITNESS: All right. I'm there.
13 Yeah. 1 and 16, you said?

14 Q. Yes, sir.

15 A. Okay.

16 Q. You might recognize 16 as an exhibit in a
17 prior cross examination of you.

18 A. Yes. I have written "old" on it.

19 Q. And this is the -- Exhibit 16 is an average
20 of cases where you provided testimony, and it compares
21 the authorized return on equity versus what -- the
22 return on equity that you advocated for.

23 A. And you're looking at 16, right, not 1?

24 Q. 16 for now.

1 A. Yes. And I would note that every decision,
2 except for four, were settled.

3 Q. Okay. And if you look at the bottom, there's
4 an underlined:

5 "Average authorized ROE basis points below
6 Mr. D'Ascendis' recommended ROE equals 127
7 basis points."

8 A. I agree with the math. But, like I said, all
9 but four were settled. And I believe that the Arizona
10 Water Company Northern Group case that was authorized
11 in 2019, my rebuttal position was 9.75. So that gap
12 isn't 174. It's less than that.

13 Q. Okay. I think that you said, "I agree with
14 the math," in your prior testimony, so you have a
15 consistent thought about this exhibit.

16 The -- that's from mid-2015 through mid-2019.
17 Now I'd like to flip forward to Exhibit 1, which is
18 from mid-2019 through mid-2022.

19 And Exhibit 1 consists of two pages. There's
20 13 cases there. And if you added up all 13 and
21 divided, you'd see that it is 132 basis points.

22 A. Right. And I think you include the
23 South Carolina order, which is not based on actual ROE
24 determination. It's based on service quality issues to

1 the point where Mr. Hinton doesn't include it in his
2 risk premium analysis.

3 So -- and then there's another service
4 quality one for utilities in Florida, where they were
5 deducted basis points based on their service quality
6 issues as well.

7 So while it may be wide, it's not as wide as
8 you would expect.

9 Q. I understand.

10 Would you agree with me that never once, on
11 Exhibits 1 or 16, is there an occasion where your
12 recommended return on equity was less than awarded by
13 the governing body?

14 A. It was -- so the other South Carolina case,
15 the one in the middle of 16 -- this 16, Exhibit 16, the
16 one that -- the top one that was fully litigated, that
17 was -- that was at my recommendation at 10.15.

18 Q. You've never come in below?

19 A. No, I have not.

20 Q. If you are at 10.45 or at 10.70 and we
21 subtract 130, 120 basis points, we get pretty close to
22 Mr. Hinton's number, don't we?

23 A. Right. But if you look at the one that would
24 matter in this case would be -- and none of these

1 matter, because these are all different -- different
2 times, different things.

3 But if you look at the last Carolina Water
4 Service that was fully litigated, it was 70 basis
5 points, right? And then you have -- if you take
6 70 basis points from mine, it would be 9.75 to 10,
7 which would encompass some of my DCF testimony.

8 And what I talked about before was
9 Mr. Hinton's risk premium model. And if he would have
10 done a comparable earnings model, both of them would be
11 subsumed in that 9.75 to 10 range.

12 But I don't prescribe to put a risk premium
13 on what I have provided, because I believe that this is
14 the -- the -- my recommendations are what the investors
15 require to invest in the Company.

16 Q. Well, right now we're at 9.4, right?

17 A. Right. And if you take -- and if you take
18 what Mr. Hinton -- his change in recommendation from
19 this case from last case is a 50-basis-point adder,
20 which would be 9.9 from here.

21 Because he recommended 8.9 in the last case.
22 He's recommending 9.45 in this case. So if you take
23 that difference and add that to the 9.4, you're at
24 9.95.

1 Q. I understand. You're doing the same thing I
2 just did to you.

3 A. Well, if -- I mean, if you want to play
4 what-if, we could play what-if --

5 Q. I understand.

6 A. -- until the cows come home.

7 Q. Well, let's do real world then.

8 We know that 9.4 was good enough to get this
9 great merger to happen, right?

10 A. I don't know what that means.

11 Q. Well, we know a merger is gonna happen with
12 SouthWest Water.

13 A. Okay.

14 Q. And we're at 9.4 right now, right?

15 A. Okay.

16 Q. So, obviously, that 9.4 was substantial
17 enough to attract SouthWest Water to induce this
18 merger.

19 A. It's a merger, not a purchase, first off.

20 Q. Okay.

21 A. And the rate of return is prospective. You
22 don't look in the past to figure out the return in the
23 future. So there's two reasons why that statement is
24 incorrect.

1 Q. Okay. We can agree that, if the ROE was at
2 1 percent for all of Corix's companies, SouthWest Water
3 would be less interested in a merger.

4 A. Well, it was 7.46 in South Carolina, and they
5 still bought it. So, I mean, it's one of those things
6 where they're looking at the -- now, I don't speak for
7 SouthWest Water, but when you look at a purchase
8 opportunity, you look at what are you going to get in
9 the future, not what they got in the past.

10 Q. Well, investors do look at historical -- you
11 used it in several of your models -- look at historical
12 data, right?

13 A. To inform projected results, yes.

14 Q. Okay. I would like to now compare your
15 testimony. If you'll look with me at Exhibit 3.

16 (Public Staff D'Ascendis Proposed Cross
17 Exhibit Number 3 was identified as it
18 was marked when prefiled.)

19 Q. I'd like to compare your testimony with --

20 A. You're gonna have to give me a second.

21 Q. Okay.

22 A. Okay. I got it.

23 Q. Exhibit 3 is the current version of
24 Exhibit 13, which is the version that you saw in the

1 prior case with the rates of return from across the
2 country.

3 A. Yes, sir. And, like I said, if you look at
4 these results, first off, the first thing that's --
5 points out to my mind, there is no data from when the
6 case was initiated, so we don't know when the data was
7 used for the base case.

8 So if you take a look at, on the bottom end,
9 the New Hampshire -- the Aquarion Water in
10 New Hampshire, I was the witness in that case. We used
11 2018 data for that company, and they settled in 2022.

12 That data is not representative of this --
13 this current capital market situation. A lot of these
14 companies -- Aqua Virginia, for example, they have a
15 15-month -- at least 15-month incubation period from
16 filing to order. So a lot of these data would not
17 reflect this type of capital market conditions.

18 If you want to look at authorized returns in
19 the past, it only makes sense if it's during a
20 relatively stable period. These last two and a half
21 years are anything but stable. So you have to take a
22 look at not this data but the prospective data.

23 But, like I said, if it's -- if it was -- if
24 it was business as usual, say, in 2017 or '18 or '19,

1 you could look at this as a stable environment, and you
2 could look at these results and say, "Hey, this looks
3 like representative of the future."

4 Now you can't do that. This is prepandemic.
5 This is prerecovery. This is preinflation. All of
6 this stuff should not -- and I know that the
7 Commission, they do rely on some of the historical
8 authorized returns in their -- in their -- in their
9 decisions. But in this case, you might want to -- you
10 might want to take a look at it maybe not as a guide
11 but as something that -- maybe a floor or something
12 like that.

13 But it is one thing that -- it kind of looks
14 like it doesn't reflect now this -- this type of
15 capital market condition as -- as it would, say, back
16 in '18, '19 -- 2018 and 2019.

17 Q. Well, now, you're guessing a little bit about
18 how far back some of these cases go, right? You don't
19 know when the New Hampshire case started, do you?

20 A. I was the witness in the case. I'd said that
21 at the beginning of the --

22 Q. The New Jersey case. I'm sorry.

23 A. Which New Jersey case?

24 Q. The one from August of 2022.

1 A. I was not the New Jersey American Water. But
2 the Aqua Ohio --

3 Q. Right.

4 A. -- case, I was.

5 Q. Right.

6 A. And the Aqua Ohio case started in 2019.

7 And if we want to keep on going down these,
8 Aqua Virginia, I was the witness, 2019 data. Okay?
9 Utility Service of Illinois was 2020 data -- beginning
10 of 2020 data. Middlesex Water was 2020 data.

11 Now, I'm the witness on all these cases --

12 Q. Right.

13 A. -- okay? So, I mean, the Maine Water Company
14 was, again, 2021 data.

15 Q. Okay.

16 A. So all of this -- all of these -- all of
17 these datas, all of these cases are not representative
18 of now. And because of that, you need to look at what
19 the record in this case shows and the models that are
20 presented by the witnesses here.

21 Neither -- I think Mr. Hinton does talk about
22 looking at the authorized returns, but he doesn't place
23 any significant weight on them.

24 Q. Let's -- I want to get back to this chart.

1 A. Sure.

2 Q. But I do want to talk about Pennsylvania,
3 which is the highest number on this chart. And if
4 you'll flip with me to Exhibit 15 just briefly.

5 A. Yes, I have it.

6 (Public Staff D'Ascendis Proposed Cross
7 Exhibit Number 15 was identified as it
8 was marked when prefiled.)

9 Q. Entitled "Authorized Water ROEs Remain Above
10 2021 Levels Based on Small Data Set." Do you see that?

11 A. Yes.

12 Q. All right. And if you'll look at -- there's
13 three paragraphs under the line. And the paragraph
14 starting "in the litigated proceeding"; do you see that
15 one?

16 A. Yes.

17 Q. And that is Aqua Pennsylvania, and there is a
18 10-point -- I'm going to read the whole paragraph.

19 "In a litigated proceeding, the Pennsylvania
20 Public Utility Commission authorized
21 Essential Utilities, Inc. subsidiaries, Aqua
22 Pennsylvania, Inc. and Aqua Pennsylvania
23 Wastewater, Inc., a 10 percent return on
24 equity, which included a 25-basis-point

1 management performance bonus."

2 A. Yes. I wasn't the witness in that case.

3 Q. Right. So if we take out the 25-basis-point
4 for management performance, we get down to 10 minus --
5 10 percent minus 0.25, 9.75 percent, right?

6 A. Yes. And, like I said, it's still not based
7 on this data that we have in the record. Even if --
8 even it's 2022, the Fed has hiked rates almost 3- --
9 over 300 basis points. So they could be using
10 beginning of 2022 data, and now it's significantly
11 higher than that.

12 But if you look at -- if you look at that
13 number, whenever the -- where is it? Aqua
14 Pennsylvania, that's May 16th. They raised rates in
15 June and September and November. That's 225 basis
16 points on the Fed funds rate.

17 Q. Well, they're going to get back to 2 percent,
18 right?

19 A. They're going to eventually. But we have
20 break-even rates, and that's in my rebuttal testimony,
21 of 2.50, right?

22 And if you look at -- so if you're investing
23 in a 2 percent inflation environment and you're
24 investing in a 2.5 inflation percent environment, your

1 value erodes by 13 percent over that 30-year period.

2 So you need to reflect that risk in an ROE.

3 So even though it may come back down, mine
4 nor Mr. Hinton's measures say that they come down any
5 time soon. Any time soon.

6 Q. It's 13 percent over a 30-year horizon?

7 A. You're still -- yeah. But it's still value
8 destruction.

9 Q. I understand.

10 A. And if you're looking at -- if you're looking
11 at the ROE, it's a long-term concept.

12 (Public Staff D'Ascendis Proposed Cross
13 Exhibit Number 13 was identified as it
14 was marked when prefiled.)

15 Q. Can we agree that Exhibit 13, if you did an
16 average of all of them, it's 9.5 percent?

17 A. It's 9.58 percent. But what's more telling
18 is that there's only two -- there's only two companies,
19 two authorized ROEs that are below what Mr. Hinton is
20 requesting in this case.

21 Q. And if you look at Exhibit 3, you would agree
22 with me that the average is 9.59 percent for
23 2022 cases, and for 2021 cases, 9.46 percent, subject
24 to all the caveats that you have discussed?

1 A. Yes.

2 Q. You'd agree with me that, if this Commission
3 adopted the number that you've advocated for, 10.45 or
4 10.7, it would be, by far, the highest in the United
5 States?

6 A. I wouldn't agree to that, because ROE does
7 not cover every single water company in the country,
8 nor does it cover every single electric company or gas
9 company. So I would not agree with you on that.

10 Q. It would be the highest, by far, compared to
11 Exhibits 13 -- to Exhibit 3?

12 A. Well, 10.40, the -- my base case, 10.40, is
13 only 40 basis points higher. So "by far" is a relative
14 term, and I don't agree with it.

15 Q. Okay.

16 MR. FREEMAN: Commissioners, if I could
17 have a brief moment? I think we're close.

18 (Pause.)

19 MR. FREEMAN: Commissioner, I would
20 move -- I believe now is a good time to move my
21 exhibits into evidence, and also --

22 COMMISSIONER CLODFELTER: Let's hold
23 until we've gone through redirect and Commissioner
24 questions, and then we'll take motions relative to

1 the exhibits.

2 MR. FREEMAN: And at some point I was
3 gonna discuss some confidential information that
4 will take less than five minutes, but I can do that
5 at the conclusion, if that's --

6 COMMISSIONER CLODFELTER: Let's get
7 through --

8 MR. FREEMAN: Okay.

9 COMMISSIONER CLODFELTER: -- redirect
10 and Commissioner questions, and then we'll take up
11 any confidential matters. Okay?

12 So the witness is on redirect.

13 Mr. Alson.

14 MR. ALSON: Thank you, Commissioner.

15 REDIRECT EXAMINATION BY MR. ALSON:

16 Q. Just a couple.

17 A. Sure.

18 Q. If you could go to Proposed Cross Exhibit
19 Number 2?

20 A. It's gonna take me a while. What does it
21 start?

22 Q. This is the Wong article.

23 A. Oh, okay. Go ahead.

24 Q. Let me know when you have it in front of you.

1 A. I have it.

2 Q. Do you recall Counsel reading an excerpt from
3 page 98 of this article?

4 A. Yes, I do.

5 Q. It was under subsection -- or Section 6,
6 Concluding Remarks?

7 A. Yes.

8 Q. In response to Counsel's reading of that
9 excerpt, I think I heard you say, "I agree with what
10 this says."

11 I think the Commission would benefit from
12 clarity as to whether you were agreeing with the
13 concept advanced by Mrs. Wong, the author, or whether
14 you were saying that counsel was accurately reciting
15 that portion of the article.

16 A. I was agreeing with the reciting of the
17 conclusions of Dr. Wong. I do not agree with her
18 conclusion.

19 Q. And if you could turn to Proposed Cross
20 Exhibit Number 6.

21 A. (Witness peruses document.)

22 That's the one with -- that's the one with
23 the 9.7 -- 9.25 versus --

24 Q. That's correct.

1 A. That's one page out of 80, so give me a
2 second. But you can go with your question, and I'll
3 find it by the time you're finished.

4 Q. I think it'd be helpful if you had it in
5 front of you. Sorry.

6 A. I had it in front of me, but I don't have it
7 anymore.

8 MR. FREEMAN: May I approach?

9 COMMISSIONER CLODFELTER: You may.

10 MR. FREEMAN: (Handing.)

11 THE WITNESS: I appreciate it. Thank
12 you.

13 MR. ALSON: Thank you.

14 Q. Do you have Proposed Cross Exhibit 6?

15 A. I do.

16 Q. Do you know where this document comes from?

17 A. No.

18 Q. Prior to preparing for this hearing, have you
19 ever seen this document?

20 A. No.

21 Q. Is there any header on the document that
22 reflects from where this document comes from?

23 A. No. Just the proposed cross exhibit.

24 Q. Can you verify the numbers on this document?

1 A. No, I can't.

2 Q. And why not?

3 A. Because my assignment is to determine the ROE
4 in the Company, not the fallout of the revenue
5 requirement. Nor do we have any back-up as far as
6 Excel exhibits or Excel sheets.

7 MR. ALSON: No further redirect. I
8 thank the Commissioner.

9 COMMISSIONER CLODFELTER: Thank you.

10 Let's see if we have any questions from
11 Commissioners for Mr. D'Ascendis.

12 (No response.)

13 COMMISSIONER CLODFELTER: All right.
14 Let's do this. Let's hold motions relative to
15 exhibits.

16 And I understand we have a short line of
17 confidential questioning, Mr. Freeman, correct?

18 MR. FREEMAN: Correct, Commissioner.

19 COMMISSIONER CLODFELTER: All right.
20 Let's do this at this point.

21 Persons in the room, if you have signed
22 a confidentiality agreement with the Company and
23 the Public Staff that allows you to access
24 confidential information, you may remain in the

1 room.

2 If you have not signed such an
3 agreement, we're gonna have to ask you to step out
4 of the room. Don't go far away, because we're
5 gonna come back into public session.

6 But because this is confidential
7 information, if you have not executed a
8 confidentiality agreement, I'm gonna ask you to
9 please exit the room at this point, and then when
10 we're done with the confidential testimony, we'll
11 bring you back.

12 And with that, we'll also, sort of, go
13 dark on Webex briefly.

14 (Due to the proprietary nature of the
15 testimony found on pages 347 to 358, it
16 was filed under seal.)

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(Confidential testimony ended at
4:22 p.m.)

COMMISSIONER CLODFELTER: Mr. Freeman,
anything further at this point?

MR. FREEMAN: I have -- I'm glad to move
exhibits into evidence whenever the Commission
tells me, but I thought --

COMMISSIONER CLODFELTER: I think we're
done with the witness on direct examination and
cross examination and redirect examination and
Commissioner questions on both public and
confidential subjects; am I correct?

MR. FREEMAN: I can't --

MR. ALSON: For the direct testimony,
yes.

1 COMMISSIONER CLODFELTER: Correct.

2 Okay. Then we'll entertain motions with respect to
3 exhibits.

4 Although this is not standard practice,
5 it's the Commission practice. So I'll take motions
6 on exhibits at this point.

7 MR. FREEMAN: We move Exhibits 1 through
8 20 -- I'm sorry, I should say prefiled. The
9 exhibits filed on November 22, 2022, marked in the
10 upper right corner W-354, Sub 400, Public Staff
11 D'Ascendis Proposed Cross Exhibit Numbers 1 through
12 20, into evidence, Commissioners.

13 COMMISSIONER CLODFELTER: Well, that's
14 the motion. Mr. Freeman, let me clarify. I was
15 keeping a running list here in sequence. I do not
16 believe there was any testimony about Exhibit
17 Number 14, unless I missed my guess.

18 MR. FREEMAN: Ms. Holt is telling me the
19 same thing, and I apologize. I will exclude 14
20 from my motion.

21 COMMISSIONER CLODFELTER: Then I have a
22 motion -- and I'll hear you on the motion.

23 I have a motion to move proposed
24 D'Ascendis Cross Examination Exhibits as premarked

1 Exhibits 1 through 20, excluding Number 14.

2 And presumably your motion is that
3 Exhibit 7 shall be admitted into evidence under
4 seal as confidential.

5 MR. FREEMAN: Thank you, Commissioner.

6 COMMISSIONER CLODFELTER: That is the
7 motion. I'll hear you.

8 MR. ALSON: Thank you, Commissioner.

9 We object to the admissibility of
10 Proposed Cross Exhibit Number 6. And I preface
11 this by saying that we've read the -- many times
12 have read the -- and reviewed the Additional
13 Procedures Order and have sought to comply with it.
14 And if it requires leave to make this objection, we
15 would request such leave.

16 Upon receipt of Proposed Exhibit --
17 Cross Exhibit Number 6, it was unclear how it was
18 going to be utilized during the proceeding. Now
19 that cross has occurred and it -- I think it's
20 clear that cross -- Proposed Cross Exhibit Number 6
21 lacks foundation, in that the testimony
22 demonstrated that the Company witness did not know
23 what the document was, he did not author it, he
24 cannot verify the numbers, did not know where the

1 numbers came from.

2 And, actually, the verification of those
3 numbers is outside his purview and outside the
4 scope of his direct testimony and outside the scope
5 of his rebuttal testimony, to cut to it.

6 And for those reasons, we object to the
7 admissibility of the Cross Exhibit Number 6.

8 COMMISSIONER CLODFELTER: Mr. Freeman,
9 I'll hear you.

10 MR. FREEMAN: If I could say two things.
11 One, this is cross, and I have computed
12 the numbers.

13 I understand the foundation argument,
14 though, and I think that can be cleared up by the
15 next panel.

16 So if I could -- if I could move it into
17 evidence through that panel testifying as to how it
18 was created and subject to cross by Carolina
19 Water's attorneys, that might just, sort of,
20 obviate the -- skip the whole problem.

21 COMMISSIONER CLODFELTER: Mr. Freeman,
22 you're prescient. I was going to make the same
23 suggestion to you. This appears to be an exhibit
24 that was generated by a Public Staff witness, and,

1 therefore, might be more appropriately offered
2 through a Public Staff witness.

3 MR. FREEMAN: Thank you, Your Honor.

4 COMMISSIONER CLODFELTER: I take it,
5 then, the motion is modified to that effect to
6 withdraw the motion as to Exhibit 6 for the present
7 with this witness.

8 Any further objections?

9 MR. ALSON: Well, respectfully, I
10 believe this --

11 COMMISSIONER CLODFELTER: The motion now
12 is not to -- there is no motion to move in
13 Exhibit 6 with this witness. There's no motion to
14 move in as to Exhibit 6.

15 MR. ALSON: Thank you, Commissioner.

16 COMMISSIONER CLODFELTER: Any other
17 objections?

18 MR. ALSON: No, Commissioner.

19 COMMISSIONER CLODFELTER: All right.
20 Then the motion, as so modified and clarified, is
21 allowed.

22 MR. FREEMAN: Thank you.

23 (Public Staff D'Ascendis Proposed Cross
24 Exhibit Numbers 1 through 6, 8 through

1 13, 15 through 20; and Confidential
2 Public Staff D'Ascendis Proposed Cross
3 Exhibit Number 7 were admitted into
4 evidence.)

5 COMMISSIONER CLODFELTER: You're not
6 excused. You're still under oath. You're coming
7 back.

8 THE WITNESS: Yes.

9 COMMISSIONER CLODFELTER: But at this
10 point, we'll move to a different aspect of the
11 case. All right?

12 And by agreement of the parties, and
13 with no one standing up and jumping up to object,
14 I'm going to recite my understanding of the
15 agreement of the parties is that we're gonna take
16 Public Staff witnesses now out of sequence, and
17 we're going to temporarily suspend the applicant's
18 case, and we're going to move into Public Staff's
19 case by agreement of the parties, and we're gonna
20 take a witness panel.

21 Is that correct?

22 MS. SANFORD: Yes. For the specific
23 purpose, from our concern, of cross examining
24 Mr. Hinton.

1 COMMISSIONER CLODFELTER: That is
2 correct.

3 So let's get the panel up. And I
4 think -- for the record's sake, so that you have a
5 proper predicate for cross examination, that also
6 out of sequence and out of order at this point, the
7 Commission will receive into evidence the prefiled
8 direct testimony of John R. Hinton, along with
9 Appendices A and B, and Exhibits 1 through 6; and
10 the Commission will receive into the record
11 pursuant to Commission Rule R1-24D the summary
12 witness statement of John Hinton.

13 In addition, the Commission will receive
14 into evidence the prefiled joint testimony of
15 John R. Hinton, Charles M. Junis, Kuei Fen Sun, and
16 Fenge Zhang, along with Appendices A, B, C, and D
17 and Exhibits WSIP-1 through WSIP-10.

18 And those will be received into the
19 record pursuant to the Additional Procedures Order
20 without objection from the parties, also in
21 accordance with paragraph 7A of the joint
22 stipulation, and without need for further oath or
23 affirmation as to the prefiled direct testimony and
24 exhibits.

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(Public Staff Hinton Exhibits 1 through 6 and Public Staff WSIP Exhibits 1 through 3 were identified and admitted into evidence.)

(Whereupon, the prefiled direct testimony and Appendices A and B of John R. Hinton, prefiled summary of John R. Hinton, prefiled joint testimony of John R. Hinton, Charles Junis, Kuei Fen Sun, and Fenge Zhang and Appendices A through D were copied into the record as if given orally from the stand.)

1 **Q. Please state your name, business address, and present position.**

2 A. My name is John R. Hinton, and my business address is 430 North
3 Salisbury Street, Raleigh, North Carolina. I am the Director of the Economic
4 Research Division of the Public Staff. My qualifications and experience are
5 provided in Appendix A.

6 **Q. What is the purpose of your testimony in this proceeding?**

7 A. The purpose of my testimony is to present to the North Carolina Utilities
8 Commission (Commission) the results of my analysis and my
9 recommendations as to the fair rate of return to be used in establishing rates
10 for water and sewer utility service provided by Carolina Water Service, Inc.
11 of North Carolina (CWSNC or Company) in connection with the Company's
12 Application for Authority to Adjust and Increase Rates and Charges for
13 Water and Sewer Utility Service in All Service Areas of North Carolina and
14 Approval of a Three-Year Water and Sewer Investment Plan (Application).
15 The testimony that follows covers the following topics: (1) the fair rate of
16 return for the Company's base case¹ filing, which is for the 12-month test
17 year ending March 31, 2022, updated through August 31, 2022 (Base Year);
18 and (2) the way in which I determined that rate of return. It does not include

¹ A base year is the multi-year rate plan (MYRP) equivalent of the test year or test period in traditional historic test year ratemaking. The base year is the foundation of a MYRP because all future expenses, revenues, etc., are based upon the levels in the established in the base year. All data supporting a utility's base year can be referred to as the utility's base case.

1 a substantive discussion of my analysis and recommendations relating to
2 the fair rate of return if the Commission approves the Company's request
3 for approval of a Three-Year Water and Sewer Investment Plan (WSIP)
4 (hereinafter also referred to as Multi-Year Rate Plan or MYRP). My views
5 on the Company's request for a MYRP are discussed in detail in the
6 contemporaneously filed Joint Testimony of Public Staff witnesses Hinton,
7 Junis, Sun, and Zhang (Joint Testimony).

8 **Q. What is the Company's currently approved cost of capital for CWSNC?**

9 A. In the Company's most recent general rate case filed in Docket No. W-354,
10 Sub 384 (Sub 384 Rate Case), the Commission approved a capital structure
11 comprised of 50.20% long-term debt and 49.80% common equity, a cost
12 rate of long-term debt of 4.85%, and a rate of return on common equity
13 (ROE) of 9.40% for an overall weighted cost of capital of 7.14%.

14 **Q. Summarize the Company's Commission-approved cost of capital**
15 **since 2017.**

16 A. The table below shows the Commission-approved cost of capital for the
17 Company's last four general rate cases.

1

TABLE – COST OF CAPITAL

Docket No.	Date Filed	Approved Overall Return	% Equity	ROE %	% Debt	Cost Rate of Debt
Sub 356	March, 2017	7.84%	52.0%	9.6%	48.0%	5.93%
Sub 360	April, 2018	7.75%	50.91%	9.75%	49.09%	5.68%
Sub 364	June, 2019	7.39%	49.1%	9.5%	50.9%	5.36%
Sub 384	July, 2021	7.14%	49.8%	9.4%	50.2%	4.85%

2 **Q. What is the cost of capital requested by CWSNC?**

3 A. Company witness D'Ascendis has proposed a midpoint ROE of 10.45% and
4 a cost rate of debt of 4.64%, for an overall weighted cost of capital of 7.55%.
5 This applied for rate of return is based on a capital structure as of December
6 31, 2021, that is comprised of 50.00% long-term debt, 50.00% common
7 equity. For the projected years 1 through 3 of the proposed MYRP
8 (Projected Years), the Company has increased its proposed ROE by 25
9 basis points to 10.70%.

1 **Q. What is the cost of capital recommended by the Public Staff using**
2 **traditional historic test year ratemaking principles?**

3 A. The Public Staff recommends an overall rate of return of 7.05% based on
4 the Company's proposed capital structure consisting of 50.00% common
5 equity and 50.00% long-term debt, a recommended debt cost rate of 4.64%,
6 and a 9.45% return on common equity (ROE) shown in the following table:

7 TABLE – PUBLIC STAFF PROPOSED COST OF CAPITAL

Overall Return (Proposed)	% Equity	ROE %	% Debt	Cost Rate of Debt
7.045%	50.00%	9.45%	50.00%	4.64%

8 Note that the aforementioned recommendation does not take into account
9 the reduction in risk associated with an approved MYRP. The impact an
10 approved MYRP has on the Public Staff's recommendation is discussed in
11 the Joint Testimony.

12 **Q. How does Company witness D'Ascendis develop his requested cost**
13 **of equity?**

14 A. Company witness Dylan D'Ascendis utilizes three cost of equity methods:
15 (1) Discounted Cash Flow (DCF); (2) the Risk Premium Model, which relies
16 on the Predictive Risk Premium method (PRPM) and the Total Market
17 Approach RPM; and (3) the Capital Asset Pricing Model (CAPM). He uses

1 a proxy group of seven publicly traded water companies to calculate his
2 DCF and uses the same proxy group of water utility companies along with
3 a group of non-price regulated companies to develop his CAPM.

4 Witness D'Ascendis' first method relies on the DCF model which produces
5 an average 9.37% ROE as shown on his page 1 of Schedule DWD-3.

6 Mr. D'Ascendis' second method employs the Risk Premium model. His
7 application of the Risk Premium model incorporates a Predicted Model and
8 a Total Market Approach, with both relying on current and predicted interest
9 rates. For the Base Year, his model generated an 11.12% ROE. For the
10 Projected Years 1 - 3, his model generated ROEs ranging from 11.69% to
11 11.90% as shown on page 1 of his Schedule DWD-4.

12 Mr. D'Ascendis' third method employs the mean and medium results of his
13 traditional and empirical capital asset pricing model (CAPM) and (ECAPM),
14 respectively. For the base year, his model generated an 11.32% ROE. For
15 the Projected Years 1 - 3, his CAPM and ECAPM applications using the
16 water utility proxy group generated three results ranging from 11.66% to
17 11.79% as shown in Schedule DWD-5. Mr. D'Ascendis also applied his
18 CAPM and ECAPM to twenty-four non-price regulated companies that
19 generated a Base Year ROE of 11.18%, and Projected Years 1 - 3 ROEs

1 ranging from 11.53% to 11.66% as shown on pages 6 – 9 of Schedule
2 DWD-7.

3 In addition, the witness argues that the small size of CWNSC relative to the
4 larger companies within his proxy groups indicates a higher level of
5 investment risk and warrants an increase in the cost of equity by 0.10%.

6 **Q. How is the remainder of your testimony structured?**

7 A. The remainder of my testimony is presented in the following six sections:

8 I. Legal and Economic Guidelines for Fair Rate of Return

9 II. Present Financial Market Conditions

10 III. Appropriate Capital Structure and Cost of Long-Term Debt

11 IV. The Cost of Common Equity Capital

12 V. Concerns with Company Witness D'Ascendis' Testimony

13 VI. Summary and Recommendations

14 **I. LEGAL AND ECONOMIC GUIDELINES FOR FAIR RATE OF RETURN**

15 **Q. Briefly describe the economic and legal framework of your analysis.**

16 A. Public utilities possess certain characteristics of natural monopolies. For
17 instance, it is more efficient for a single firm to provide a service such as
18 water production and distribution or wastewater collection and treatment
19 than for two or more firms offering the same service in the same area to do
20 so. Therefore, regulatory bodies have assigned franchised territories to

1 public utilities to provide services more efficiently and at a lower cost to
2 consumers.

3 **Q. What is the economic relationship between risk and the cost of**
4 **equity?**

5 A. The cost of equity capital to a firm is equal to the rate of return investors
6 expect to earn on the firm's securities given the securities' level of risk.
7 Investors will require a higher expected return from an investment with a
8 greater risk. In *Federal Power Comm'n v. Hope Natural Gas Co.*, 320 U.S.
9 591, 603 (1944) (*Hope*), the United States Supreme Court stated:

10 [T]he return to the equity owner should be commensurate with
11 returns on investments in other enterprises having
12 corresponding risks. That return, moreover, should be
13 sufficient to assure confidence in the financial integrity of the
14 enterprise, so as to maintain its credit and to attract capital.

15 In *Bluefield Waterworks & Impr. Co. v. Public Service Comm'n*, 262 U.S.
16 679, 692-93 (1923) (*Bluefield*) the United States Supreme Court stated:

17 A public utility is entitled to such rates as will permit it to earn
18 a return on the value of the property which it employs for the
19 convenience of the public equal to that generally being made
20 at the same time and in the same general part of the country
21 on investments in other business undertakings which are
22 attended by corresponding risks and uncertainties, but it has
23 no constitutional right to profits such as are realized or
24 anticipated in highly profitable enterprises or speculative
25 ventures. The return should be reasonably sufficient to assure
26 confidence in the financial soundness of the utility and should
27 be adequate, under efficient and economical management, to
28 maintain and support its credit and enable it to raise the

1 money necessary for the proper discharge of its public duties.
2 A rate of return may be reasonable at one time and become
3 too high or too low by changes affecting opportunities for
4 investment, the money market, and business conditions.

5 These two decisions recognize that utilities are competing for the capital of
6 investors and provide legal guidelines as to how the allowed rate of return
7 should be set. The decisions specifically speak to the standards or criteria
8 of capital attraction, financial integrity, and comparable earnings. The *Hope*
9 decision, in particular, recognizes that the cost of common equity is
10 commensurate with the risk relative to investments in other enterprises. In
11 competitive capital markets, the required return on common equity will be
12 the expected return foregone by not investing in alternative stocks of
13 comparable risk. Thus, in order for the utility to attract capital, possess
14 financial integrity, and exhibit comparable earnings, the return allowed on a
15 utility's common equity should be that return required by investors for stocks
16 with comparable risk. As such, the return requirements of debt and equity
17 investors, which is shaped by expected risk and return, are paramount in
18 attracting capital.

19 It is widely recognized that a public utility should be allowed a rate of return
20 on capital, which will allow the utility, under prudent management, to attract
21 capital under the criteria or standards referenced by the *Hope* and *Bluefield*
22 decisions. If the allowed rate of return is set too high, consumers are

1 burdened with excessive costs, current investors receive a windfall, and the
2 utility has an incentive to overinvest. Likewise, customers will be charged
3 prices that are greater than the true economic costs of providing these
4 services. Consumers will consume too few of these services from a point of
5 view of efficient resource allocation. If the return is set too low, then the utility
6 stockholders would suffer because a declining value of the underlying
7 property will be reflected in a declining value of the utility's equity shares.
8 This could happen because the utility would not be earning enough to
9 maintain and expand its facilities to meet customer demand for service,
10 cover its operating costs, and attract capital on reasonable terms. Lenders
11 will shy away from the company because of the increased risk that the utility
12 will default on its debt obligations. Because a public utility is capital
13 intensive, the cost of capital is a very large part of its overall revenue
14 requirement and is a crucial issue for a company and its ratepayers.

15 The *Hope* and *Bluefield* standards are embodied in N.C. Gen. Stat.
16 § 62-133(b)(4), which requires that the allowed rate of return be sufficient to
17 enable a utility by sound management:

18 to produce a fair return for its shareholders, considering
19 changing economic conditions and other factors, . . . to
20 maintain its facilities and services in accordance with the
21 reasonable requirements of its customers in the territory
22 covered by its franchise, and to compete in the market for
23 capital funds on terms that are reasonable and are fair to its
24 customers and to its existing investors.

1 In *State ex rel. Utils. Comm'n v. Cooper*, 366 N.C. 484, 739 S.E.2d 541
2 (2013) (*Cooper*), the North Carolina Supreme Court reversed and
3 remanded the Commission's Order in Docket No. E-7, Sub 989, approving
4 a stipulated return on equity of 10.50% for Duke Energy Carolinas, LLC. In
5 its decision, the Court held that (1) the 10.50% return on equity was not
6 supported by the Commission's own independent findings and analysis as
7 required by *State ex rel. Utils. Comm'n v. Carolina Util. Customers Ass'n*,
8 348 N.C. 452, 500 S.E.2d 693 (1988) (*CUCA I*), in cases involving
9 nonunanimous stipulations, and (2) the Commission must make findings of
10 fact regarding the impact of changing economic conditions on consumers
11 when determining the proper return on equity for a public utility. In *Cooper*,
12 however, the Court held that the Commission must consider changing
13 economic conditions and the impact of those changes when approving a
14 return on equity in all cases that come before it. The foregoing analysis is
15 required without regard to whether a stipulation is present.

16 In considering this new element, the Commission is guided by ratemaking
17 principles laid down by statute and interpreted by a body of North Carolina
18 case law developed over many years. According to these principles, the test
19 of a fair rate of return is a return on equity that will provide a utility, by sound
20 management, the opportunity to (1) produce a fair profit for its shareholders
21 in view of current economic conditions, (2) maintain its facilities and service,

1 and (3) compete in the marketplace for capital. *State ex rel. Utils. Comm'n*
2 *v. General Tel. Co.*, 281 N.C. 318, 370, 189 S.E.2d 705, 738 (1972). Rates
3 should be set as low as reasonably possible consistent with constitutional
4 constraints. *State ex rel. Utils. Comm'n v. Pub. Staff-N. Carolina Utils.*
5 *Comm'n*, 323 N.C. 481, 490, 374 S.E.2d 361, 366 (1988). The exercise of
6 subjective judgment is a necessary part of setting an appropriate return on
7 equity. *Id.* Thus, in a particular case, the Commission must strike a balance
8 that (1) avoids setting a return so low that it impairs the utility's ability to
9 attract capital, (2) avoids setting a return any higher than needed to raise
10 capital on reasonable terms, and (3) considers the impact of changing
11 economic conditions on consumers.

12 **Q. What is the fair rate of return?**

13 A. The fair rate of return is simply a percentage which when multiplied by a
14 utility's rate base investment will yield the dollars of net operating income
15 that a utility should reasonably have the opportunity to earn. This dollar
16 amount of net operating income is available to pay the interest cost on a
17 utility's debt capital and a return to the common equity investor. The fair rate
18 of return multiplied by the utility's rate base yields the dollars a utility needs
19 to recover in order to earn the investors' required return on capital.

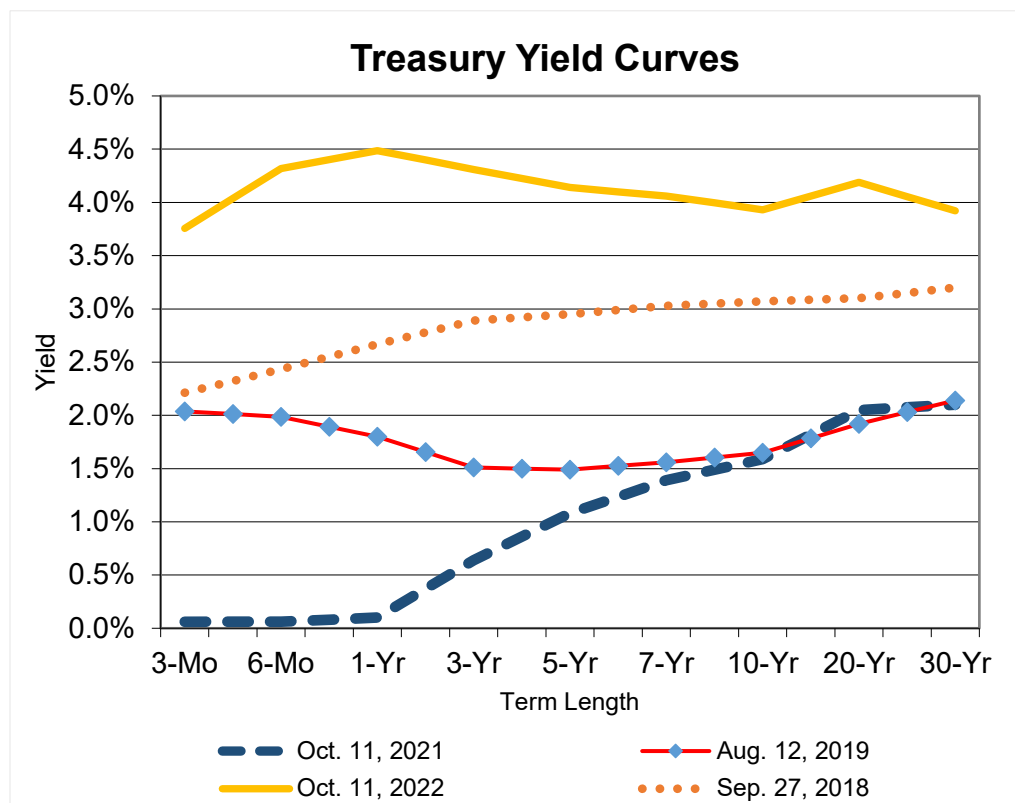
1 **Q. How did you determine the fair rate of return that you recommend in**
2 **this proceeding?**

3 A. To determine the fair rate of return, I performed a cost of capital study
4 consisting of three steps. First, I determined the appropriate capital
5 structure for ratemaking purposes, i.e., the proper proportion of each form
6 of capital. Utilities normally finance assets with debt and common equity.
7 Because each of these forms of capital has different costs, especially after
8 income tax considerations, the relative amounts of each form employed to
9 finance the assets can have a significant influence on the overall cost of
10 capital, revenue requirements, and rates. Thus, the determination of the
11 appropriate capital structure for ratemaking purposes is important to the
12 utility and to ratepayers. Second, I determined the cost rate of each form of
13 capital. The individual debt issues have contractual agreements explicitly
14 stating the cost of each issue. The embedded annual cost rate of debt is
15 generally calculated with the annual interest cost divided by the debt
16 outstanding. The cost of common equity is more difficult to determine
17 because it is based on the investor's opportunity cost of capital. Third, by
18 combining the appropriate capital structure ratios for ratemaking purposes
19 with the associated cost rates, I calculate an overall weighted cost of capital
20 or fair rate of return.

1

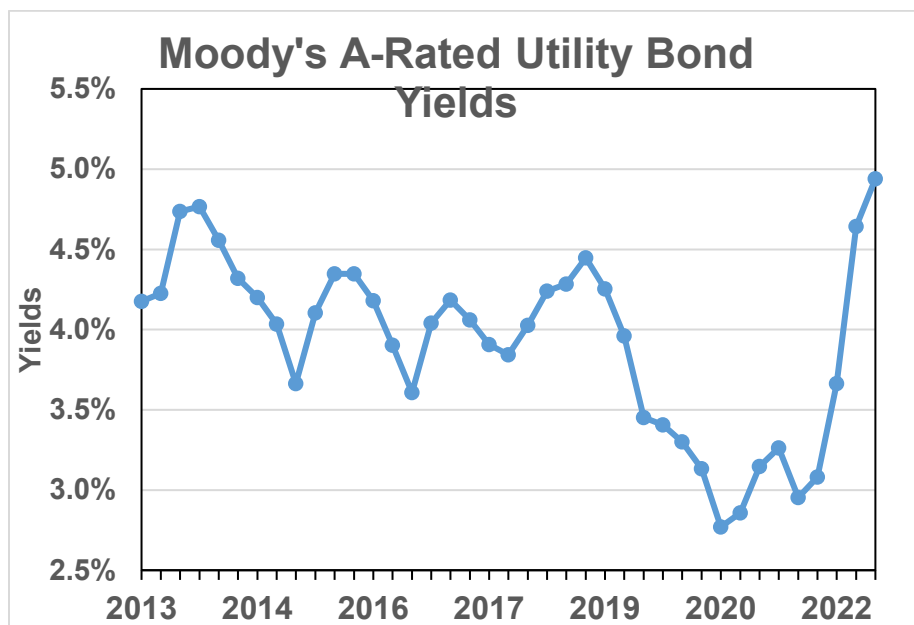
II. PRESENT FINANCIAL MARKET CONDITIONS2 **Q. Can you briefly describe the current financial market conditions?**

3 A. Yes. As compared to the last 30 years there has been a resurgence of inflation,
4 which has contributed to an increase in inflationary expectations and increases
5 in interest rates. The changes in the U.S. Treasury bond yield curves illustrate
6 differences in increases in interest rates over various terms. The largest
7 increase in the difference from current yields compared to the last 12 months
8 is with the short-term securities of one year or less which have increased by
9 over 400 basis points. However, the increases in the 30-year term U.S.
10 Treasury yields are significantly less with an approximately 180 basis points
11 increase relative to the prior 12-months.



1

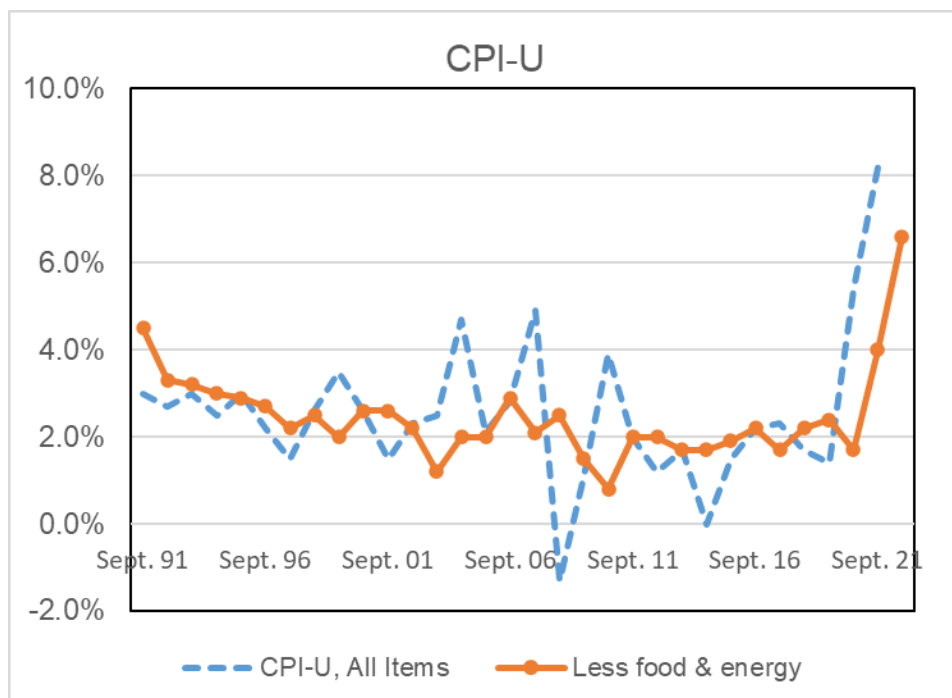
2 With particular importance to utility financings, yields on long-term “A” rated
 3 utility bonds as reported by Moody’s *Bond Survey* have increased to 4.94%
 4 for the third quarter of 2022, as compared to 2.95% observed during the third
 5 quarter of 2021. The changes in the A-rated Public Utility bond yields are
 6 shown below:



1

2 As noted, the economy is experiencing annual inflation rates that have not
 3 been observed for the last 30 years. As of September 2022, the annual
 4 inflation rate is 8.2% as measured by the Consumer Price Index for all items
 5 with urban consumers (CPI-U) and 6.6%, excluding food and energy shown
 6 in the following graph.²

² U.S. Bureau of Labor Statistics, CPI-U, Items less food and energy, downloaded on October 13, 2022, <https://www.bls.gov/cpi/data.htm>.



1

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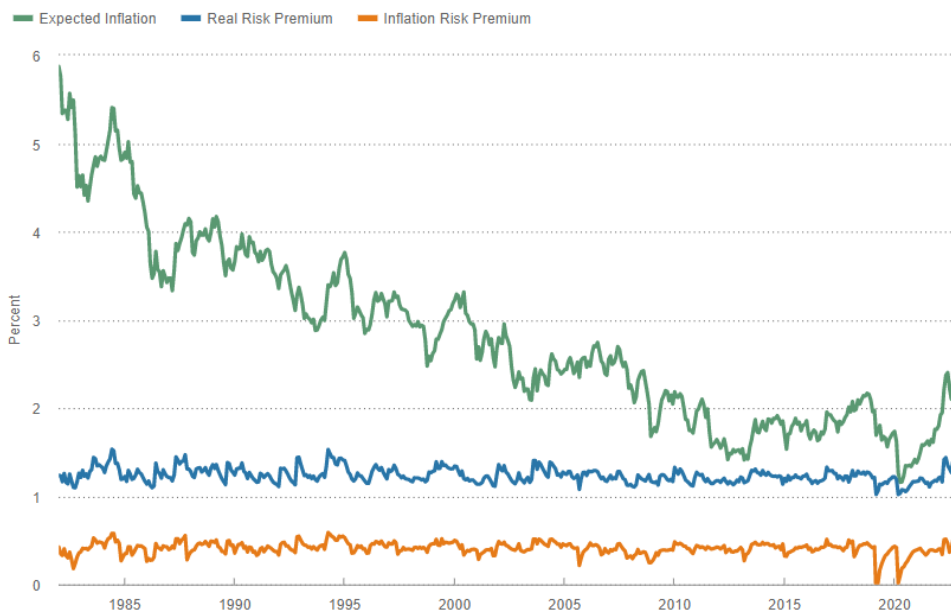
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8

However, it is reasonable to believe that the above increases in utility bond yields reflect expected future inflation rates, and changes in the yield curve suggest that inflationary expectations are greater in the short term relative to a longer term. Lower long-term inflation expectations are observed in the analysis performed by the Federal Reserve Bank of Cleveland. As of September 1, 2022, the Federal Reserve Bank of Cleveland estimated the expected annual inflation rate³ over the next 10-years of 2.35% shown below:

³ Federal Reserve Bank of Cleveland, Inflation Expectations, downloaded on Oct. 13, 2022, <https://www.clevelandfed.org/en/our-research/indicators-and-data/inflation-expectations.aspx>

Ten-Year Expected Inflation and Real and Inflation Risk Premia



Source: Federal Reserve Bank of Cleveland calculations based on data from Blue Chip, Bloomberg, Bureau of Labor Statistics, Federal Reserve Bank of Philadelphia, Federal Reserve Board, Haver Analytics, and the model of Haubrich, Pennacchi, and Ritchken, 2012. "Inflation Expectations, Real Rates, and Risk Premia: Evidence from Inflation Swaps." *Review of Financial Studies*, 25(5).

1

2

The discussion above demonstrates that I considered present market conditions and changing economic conditions in arriving at the Public Staff's recommended return on equity and overall cost of capital.

3

4

5

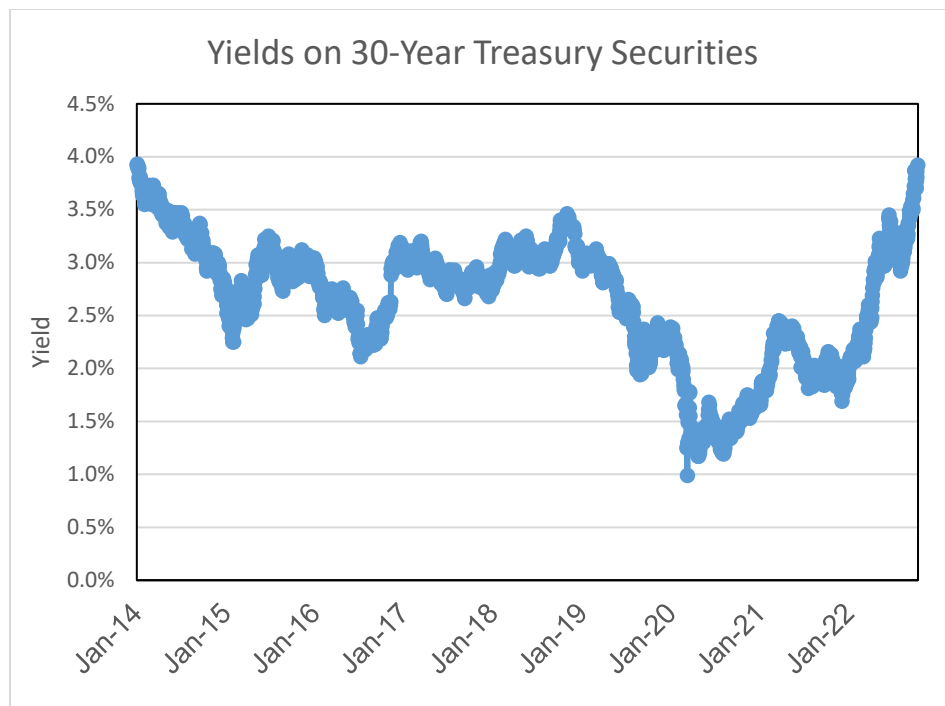
1 **Q. With these recent increases in interest rates, do you rely on interest rate**
2 **forecasts in your investigation?**

3 A. No. I do not rely on interest rate forecasts to determine the cost of equity.
4 Rather, I believe that relying on current interest rates, especially in relation to
5 yields on long-term bonds, is more appropriate for ratemaking because it is
6 reasonable to expect that as investors are pricing bonds in the marketplace,
7 their pricing is based on expectations of domestic and international demand
8 and supply of capital, future interest rates, future inflation rates, and other
9 relevant factors.

10 While I have a healthy respect for forecasting, I am aware of the risk of relying
11 on predictions of rising interest rates to determine utility rates. An example of
12 the danger of relying on forecasts is found in the testimony of Aqua witness
13 Pauline Ahern in the 2013 Aqua rate case filed January 28, 2014, in Docket
14 No. W-218, Sub 363. In that proceeding, she identified several interest rate
15 forecasts by *Blue Chip Financial Forecasts (Blue Chip)* of 30-year Treasury
16 Bonds yields that were predicted to rise to 4.3% in 2015, 4.7% in 2016, 5.2%
17 in 2017, and 5.5% for 2020 – 2024.⁴ As illustrated in the graph below, these
18 forecasts significantly over-estimated actual interest rates for 30-year
19 Treasury Bonds. Similar overestimated forecasts are found in Exhibit DWD-

⁴ Docket No. W-218, Sub 363, Tr. Vol. 2, 171: 8-9.

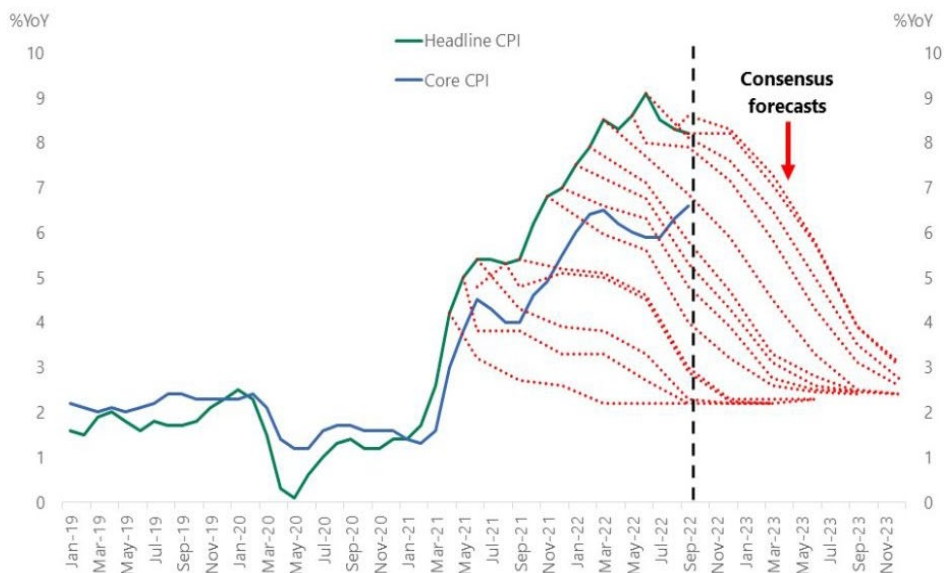
1 4 to Company witness D'Ascendis' testimony filed July 1, 2022, in Docket
 2 No. W-354, Sub 360, where the *Blue Chip* predicted the 30-year Treasury
 3 Bonds would rise to 3.8% by the third quarter of 2019. According to the
 4 Federal Reserve, the highest observed yield on 30-year Treasury Bonds for
 5 the third quarter of 2019 was 2.65%, and the average for the quarter was
 6 2.29%, a forecasting error between 115 to 151 basis points. In my opinion,
 7 these types of errors make these forecasts inappropriate for ratemaking.



8

9 In addition, the tendency of economists to make poor interest rate predictions
 10 in the last ten years was addressed in a December 14, 2019, Wall Street
 11 Journal article entitled: *Economists Got the Decade All Wrong. They're Trying*

1 to Figure Out Why and attached as Hinton Exhibit 1. Additionally, the chart
 2 below shows economists' disparate predictions regarding inflation:⁵



3
 4 The foregoing examples illustrate why I tend to place more weight on current
 5 market interest rates that are inherently forward looking as they reflect
 6 investor expectations of both current and future returns on bonds and, to
 7 some extent, future rates of inflation.

8

⁵ Source: Torsten Sløk, Apollo Chief Economist, Cleveland Fed, Bloomberg running survey of Wall Street economists, Haver Analytics.

1 **III. APPROPRIATE CAPITAL STRUCTURE AND**
2 **COST OF LONG-TERM DEBT**

3 **Q. Why is the appropriate capital structure important for ratemaking?**

4 A. For companies that do not have monopoly power, the price that an individual
5 company charges for its products or services is set in a competitive market,
6 and that price is generally not influenced by the company's capital structure.
7 However, the capital structure that is determined to be appropriate for a
8 regulated public utility has a direct bearing on the fair rate of return, revenue
9 requirement, and, therefore, the prices charged to captive ratepayers.

10 The capital structure is simply a representation of how a utility's assets are
11 financed. It is the relative proportions or ratios of debt and common equity
12 to the total of these forms of capital which have different costs. Common
13 equity is far more expensive than debt for ratemaking purposes for two
14 reasons.

15 First, as mentioned earlier, there are income tax considerations. Interest on
16 debt is deductible for purposes of calculating income taxes. The cost of
17 common equity, on the other hand, must be "grossed up" to allow the utility
18 sufficient revenue to pay income taxes and to earn its cost of common equity
19 on a net, or after-tax, basis. Therefore, the amount of revenue the utility
20 must collect from ratepayers to meet income tax obligations is directly

1 related to both the common equity ratio in the capital structure and the cost
2 of common equity.

3 Second, the cost of common equity is set at an expected cost rate over the
4 Base Year and Predicted Years. Conversely, the cost of debt is set at an
5 embedded rate because the utility is incurring costs that are previously
6 established in contracts with security holders.

7 Because the Commission has the duty to promote economic utility service,
8 it must decide whether a utility's requested capital structure is appropriate
9 for ratemaking purposes. An example of the cost difference can be seen in
10 the Company's Application. Based upon the Company's requested capital
11 cost rates, each dollar of its common equity and long-term debt that
12 supports the retail rate base has the following approximate annual costs
13 (including income tax, regulatory fee, and gross receipts tax expense) to
14 ratepayers:

- 15 (1) Each \$1 of common equity costs a ratepayer approximately 12
16 cents per year.
17
- 18 (2) Each \$1 of long-term debt costs a ratepayer approximately 5
19 cents per year.

20

1 **Q. Do you support the capital structure proposed by the Company in this**
2 **proceeding?**

3 A. Yes. The proposed capital structure consisting of 50% common equity and
4 50% debt is reasonable, and it is reflective of other capitalizations observed
5 in the capital structures of publicly traded water utilities. Additionally, the
6 proposed ratios are consistent with Commission-approved common equity
7 ratios for CWSNC and other water and wastewater utilities.

8 **Q. What is your recommended cost of long-term debt?**

9 A. I recommend the use of the Company's proposed 4.64% embedded cost of
10 debt. The reduction from the 4.85% embedded cost rate in the Sub 384
11 Rate Case reflects the amortization of the outstanding loans, particularly,
12 the scheduled \$9,000,000 payments on the 6.58% note. This series of debt
13 is associated with a Master Note Purchase Agreement of Collateral Trust
14 Notes totaling \$180,000,000 with \$9,000,000 annual payments that began
15 in 2017 and continue through 2035. The Company maintains that the "make
16 whole provisions" contained in those notes make it uneconomical for
17 refinancing. The Public Staff continues to urge the Company to investigate
18 sources of capital that minimize the embedded cost rate for long-term debt.
19 In addition, the 4.64% embedded cost rate contains \$8,000,000 in a
20 revolving credit balance with a relatively lower debt cost rate. The following

1 table shows my recommended capital structure and cost rate of long-term
2 debt:

3 CAROLINA WATER INC. OF NORTH CAROLINA

Item	Ratio	Cost Rate
Long-term Debt	50.0%	4.64%
Common Equity	50.0%	<i>discussed below</i>

4 **IV. THE COST OF COMMON EQUITY CAPITAL**

5 **Q. How do you define the cost of common equity?**

6 A. The cost of equity capital for a firm is the expected rate of return on common
7 equity that investors require to induce them to purchase shares of the firm's
8 common stock. The return is expected given that, when investors buy a
9 share of the firm's common stock, those investors do not know with certainty
10 what their returns will be in the future.

11 **Q. How did you determine the cost of common equity capital for the
12 Company?**

13 A. I used the Discounted Cash Flow method and the Risk Premium Model to
14 determine the cost of equity for the Company. These are discussed below.

1 **A. Discounted Cash Flow (DCF) Method**

2 **Q. Please describe your DCF model analysis.**

3 A. I incorporated the DCF model, which is a method of evaluating the expected
4 cash flows from an investment by giving appropriate consideration to the
5 time value of money. The DCF model is based on the theory that the price
6 of the investment will equal the discounted cash flows of returns. The return
7 to an equity investor comes in the form of expected future dividends and
8 price appreciation. However, as the new price will again be the sum of the
9 discounted cash flows, price appreciation is ignored, and attention focuses
10 on the expected stream of dividends. Mathematically, this relationship is
11 expressed as follows:

12 Let

13 D_1 = expected dividends per share over the next twelve months;

14 g = expected growth rate of dividends;

15 k = cost of equity capital; and

16 P = price of stock or present value of the future income stream.

17 Then

$$18 \quad P = \frac{D_1}{1+k} + \frac{D_1(1+g)}{(1+k)^2} + \frac{D_1(1+g)^2}{(1+k)^3} + \dots + \frac{D_1(1+g)^{t-1}}{(1+k)^t}$$

19

20

1 This equation represents the amount an investor would be willing to pay for
 2 a share of common stock with a dividend stream over the future periods.
 3 Using the formula for a sum of an infinite geometric series, this equation is
 4 reduced to:

$$5 \quad \quad \quad D_1$$

$$6 \quad \quad \quad P = \frac{\quad}{\quad}$$

$$7 \quad \quad \quad \quad k-g$$

8 Solving for k yields the following DCF equation:

$$9 \quad \quad \quad D_1$$

$$10 \quad \quad \quad k = \frac{\quad}{\quad} + g$$

$$11 \quad \quad \quad \quad P$$

12 Therefore, the rate of return on equity capital required by investors is the
 13 sum of the dividend yield (D_1/P) plus the expected long-term growth rate in
 14 dividends (g).

15 **Q. Did you apply the DCF method directly to CWSNC?**

16 A. No. While Corix Infrastructure Inc. (Corix) is the parent company of
 17 CWSNC, British Columbia Investment Management Corporation (BCIMC)
 18 is the ultimate parent company of Corix and, by extension, CWSNC. BCIMC
 19 is a private equity fund, and its shares of common equity are not publicly
 20 traded. Therefore, to estimate the investor required rate of return, I applied
 21 the DCF method to a risk-comparable investment comprised of six water

1 utilities followed by *Value Line Investment Survey (Value Line)*. This risk-
2 comparable investment group is discussed below.

3 **Q. What measures of risk did you review to determine the**
4 **comparability of investing in water utilities?**

5 A. I reviewed standard risk measures that are widely available to investors
6 and are considered by most investors when making investment
7 decisions. The beta coefficient is a measure of the sensitivity of a stock's
8 price to overall fluctuations in the market. The *Value Line* beta coefficient
9 describes the relationship between a company's stock price and the
10 New York Stock Exchange Composite. A beta value of less than 1.0
11 means that the stock's price is less volatile than the movement in the
12 market; conversely, a beta value greater than 1.0 indicates that the stock
13 price is more volatile than the market.

14 I reviewed the *Value Line* Safety Rank, which is defined as a measure
15 of the total risk of a stock. The Safety Rank is calculated by averaging
16 two variables: (1) the stock's index of price stability and (2) the Financial
17 Strength rating of the company. In addition, I reviewed the S&P Common
18 Stock Rating. The stock rating system takes into consideration two
19 important factors in the determination of a stock's rating: the stability and
20 growth of earnings and dividends. However, the stock rating does not

1 consider a company's balance sheet or other factors. The stock rating
2 system has seven grades, with A+ being the highest rating possible.

3 I also reviewed Moody's and S&P's Bond Rating, which are
4 assessments of a company's creditworthiness. Credit rating agencies
5 focus on the creditworthiness of the particular bond issuer, which
6 includes a detailed and thorough review of the potential areas of
7 business risk and financial risk of the company. These and other risk
8 measures for the comparable groups are shown in Hinton Exhibit 2 and
9 are further explained in Appendix B.

10 **Q. How did you determine the dividend yield component of the DCF**
11 **model?**

12 A. The dividend yield component is the fraction (D_1/P) in the DCF model above.
13 I calculated the dividend yield by using the *Value Line* estimate of dividends
14 to be declared over the next 12 months divided by the price of the stock as
15 reported in the *Value Line* Summary and Index sections for each week of
16 the 13-week period of July 15, 2022, through October 7, 2022. A 13-week
17 averaging period tends to smooth out short-term variations in the stock
18 prices. This process resulted in an average dividend yield of 1.87% for the
19 comparable group of water utilities.

1 **Q. How did you determine the expected growth rate component of the**
2 **DCF model?**

3 A. The expected long-term growth rate in dividends is the additur (g) in the
4 DCF model above. I employed the growth rates of the risk-comparable
5 investment group in earnings per share (EPS), dividend per share (DPS),
6 and book value per share (BPS) as reported in *Value Line* over the past ten
7 and five years. I also employed the forecasts of the growth rates of the
8 comparable groups in EPS, DPS, and BPS, as reported in *Value Line*. The
9 historical and forecasted growth rates are prepared by analysts employed
10 by an independent advisory service that is widely available to investors and
11 should also provide an estimate of investor expectations. I include both
12 known historical growth rates and forecasted growth rates because it is
13 reasonable to expect that investors consider both sets of data in deriving
14 their expectations.

15 Finally, I incorporated the consensus of various analysts' forecasts of five-
16 year EPS growth rate projections, as reported in Yahoo Finance. The
17 dividend yields and growth rates for each of the companies and the average
18 for the comparable group are shown in Hinton Exhibit 3.

19 Hinton Exhibit 3 contains three broad categories: (1) Value Line Historical;
20 (2) Value Line Forecast; and (3) Yahoo Finance Forecast. They are
21 described below.

1 Category (1) is a historical-looking calculation. An
 2 average of the results of category (1) yields a 7.48% expected
 3 long-term growth rate (the (g) component in the DCF
 4 calculation). Based on the average historical growth rate of the
 5 group, I believe a 7.48% expected growth rate is reasonable for
 6 investors.

7 Categories (2) and (3) are future-looking prediction
 8 forecasts. An average of categories (2) and (3) yields a 6.73%
 9 expected long-term growth rate (the (g) component in the DCF
 10 calculation). Assuming that investors give weight to forecasted
 11 growth rates, I believe that a 6.73% expected growth rate is also
 12 reasonable.

13 Finally, I calculated an average of the historical and
 14 future looking forecast. An average of categories (1), (2), and (3)
 15 yields a 7.18% expected long-term growth rate (the (g)
 16 component in the DCF calculation). Based on the average
 17 historical and forecasted growth rates, it is reasonable for
 18 investors to expect a 7.18% growth rate.

19 **Q. What is your conclusion based on the DCF model?**

20 A. Based upon my DCF model analysis for the comparable group of water
 21 utilities, the combination of expected dividend yield and the expected growth
 22 rate yields a cost of equity range of 8.6% to 9.4%, as follows:

DCF Method	Long-Term Growth Rate	Dividend Yield Component	Sum
	(g)	(D ₁ /P)	Cost of Equity
Average Historical	7.48%	1.87%	9.35%
Average Forecast	6.73%	1.87%	8.60%
Average Historical and Forecast	7.18%	1.87%	9.05%

23

1

B. Risk Premium Model

2 **Q. Please describe your application of the risk premium model (RPM)**
3 **using a regression analysis.**

4 A. The equity risk premium method can be defined as the difference between
5 the expected return on a common stock and the expected return on a debt
6 security. The differential between the two rates of return is indicative of the
7 rate of return investors require in order to accept the additional risk involved
8 with an investment in the Company's common stock over a fixed investment
9 with bonds.

10 In order to quantify the risk premium, I need estimates of the cost of equity
11 and the cost of debt at contemporaneous points in time. This method relies
12 on approved returns on common equity for water utility companies from
13 various public utility commissions that are published by the Regulatory
14 Research Associates, Inc. (RRA), within SNL Global Market Intelligence. In
15 order to estimate the relationship with a representative cost of debt capital,
16 I have regressed the average annual allowed equity returns with the
17 average Moody's A-rated yields for Public Utility bonds from 2009 through
18 2022. The regression analysis quantifies the historical relationship between
19 approved ROEs and A-rated public utility bond yields, which is combined with
20 recent monthly yields to provide an estimate of the current cost of common
21 equity.

1 **Q. What are the strengths of using allowed equity returns in the model?**

2 A. The use of allowed returns as the basis for the expected equity return has
3 strengths over other approaches that involve models that subtract a cost rate
4 of debt from the estimated equity return. One strength of my approach is that
5 authorized returns on equity are generally arrived at through lengthy
6 investigations by various parties with opposing views on the rate of return
7 required by investors. Thus, it is reasonable to conclude that the approved
8 allowed returns are good estimates of the cost of equity. Another strength of
9 this method is the use of observed data on the investor-required ROE and
10 the cost of debt as compared to other risk premium methods that generally
11 involve complex models and assumptions with the investor-required rate of
12 return.

13 **Q. What are the results of your RPM analysis?**

14 A. The summary data of risk premiums shown on Hinton Exhibit 4. The first
15 page of that exhibit shows that the average risk premium is 5.46%. The
16 second page of that exhibit shows the average of the last six months of
17 Moody's A-rated public utility bond yields of 4.79%. Summing these two
18 yields an average cost of equity of 10.25%. However, I believe this is an
19 inappropriate outcome because it ignores the historical relationship between
20 approved ROEs and bond yields. It has been acknowledged in risk premium
21 studies that as interest rates decrease the risk premium increases. For this

1 reason, the use of the regression equation quantifies the historical
2 relationship and provides a better estimate of the current cost of equity as
3 shown in Hinton Exhibit 4. The equation diagnostics indicate that a significant
4 statistical relationship exists between allowed equity returns and bond costs,
5 such that a 100-basis point increase in the bond cost corresponds to an
6 increase of approximately 29-basis points in the cost of equity and risk
7 premium.⁶ While various studies on the cost of equity capital have differed
8 on the level of the negative relationship of interest rates and risk premiums,
9 there has been agreement that as interest rates fall, there is an increase in
10 the premium. See Eugene F. Brigham, Dilip K. Shome, and Steve R. Vinson,
11 *The Risk Premium Approach to Measuring a Utility's Cost of Equity*, Financial
12 Management, Spring 1985, 33. Applying this relationship to the current utility
13 bond cost of 4.79%⁷ results in a current estimate of the cost of equity of
14 9.88%.

15 **Q. Based upon your study, what are your findings on the cost of equity?**

16 A. Averaging the three results of my DCF model analysis yields an average
17 estimate of 9.0%. My RPM analysis indicates a cost of equity of 9.88%, which
18 I rounded to 9.9%. As shown in Hinton Exhibit 5, the average of those two

⁶ The regression indicated a significant statistical relationship of $ROE = 0.08599 + 0.261495$, with an adjusted $R^2 = 0.8322$.

⁷ The 3.11% current bond yield was determined using the most recent six-month average yield-to-maturity rate of Moody's A-rated Utility Bond Yields.

1 methods is 9.45%. This ROE is appropriate for use if the Commission does
2 not approve the Company's MYRP. As previously discussed, this
3 recommendation does not reflect the expected impact of the Company's
4 requested MYRP on the investor-required rate of return.

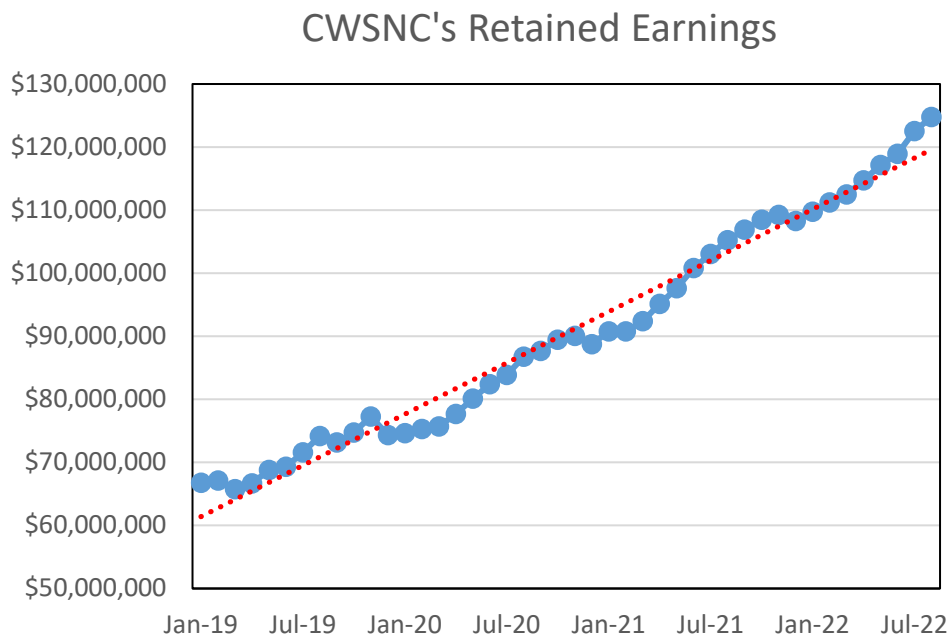
5 **Q. What other evidence did you consider in your assessment of the**
6 **reasonableness of your recommendations?**

7 A. In regard to my reasonableness assessment, I considered the pre-tax
8 interest coverage ratio produced by my recommended cost of capital.
9 Based on the recommended capital structure, cost of debt, and return on
10 equity, the pre-tax interest coverage ratio is approximately 3.7 times as
11 shown in Hinton Exhibit 6.⁸ This level of pre-tax interest coverage and funds
12 flow coverage should allow CWSNC to qualify for a single "A" bond rating.

13 Another factor in my reasonableness assessment is the strong and
14 relatively stable growth of the Company's retained earnings. The graph of
15 its retained earnings reveals an annual growth rate that is in excess of 15%.
16 Furthermore, the trend line of the earnings shows the stability over time

⁸ The pre-tax interest coverage ratio of 3.7 is based on a ROE of 9.45%. As previously discussed, the 9.45% ROE does not reflect the reduced ROE I recommend should the Commission approve the Company's MYRP request.

1 which underlie the relative lower investment risks associated with water
 2 utilities.



3

4 **V. CONCERNS WITH COMPANY WITNESS D'ASCENDIS'**
 5 **TESTIMONY**

6 **Q. Do you have concerns about Company witness D'Ascendis'**
 7 **testimony?**

8 **A.** Yes. I have two areas of concern with his testimony.

9 **A. Interest Rate Forecasts for Ratemaking**

10 As noted, I have concerns with the use of interest rate forecasts to
 11 determine the cost of equity. In this proceeding, Company witness
 12 D'Ascendis relies on the *Blue Chip* of 30-year treasury yields in his CAPM

1 analysis, as shown in his Exhibit 1, Schedule DWD-4. Although the interest
2 rate forecast for 30-year treasury securities represents a reasonable
3 forecast, that does not alter my position that interest rate forecasts are not
4 appropriate for ratemaking. Company witness D'Ascendis relied on similar
5 forecasts for 30-year yields in his predictive CAPM analysis in the
6 Company's general rate case filed in July 2021 in Docket No. W-384, Sub
7 364. A comparison of the *Blue-Chip* predictions of forecasts through the
8 third quarter of 2020 and the maximum observed daily yields on 30-year
9 Treasury Securities reveal an average overestimation of approximately 127
10 basis points. It is my observation that interest rate forecasts have shown a
11 tendency to over-estimate the future level of interest rates by a significant
12 degree, and, for that reason, I maintain that these forecasts are
13 inappropriate for ratemaking.

14 **B. Risk Adjustment for Small Size**

15 My other concern with Company witness D'Ascendis' testimony is his 10-
16 basis point adjustment for the size of CWSNC. I do not believe that it is
17 appropriate to add a risk premium to the cost of equity due to the size of a
18 regulated utility. CWSNC is owned by Corix, which is owned by BCIMC. As
19 such, Corix and BCIMC have a significant influence over the balances of
20 common equity and long-term debt of CWSNC. BCIMC determines the

1 amount of dividend payments paid by Corix and the frequency of those
2 payments.

3 I do not support a small size adjustment for the reasons set forth below.
4 From a regulatory policy perspective, ratepayers should not be required to
5 pay higher rates because they are served by a utility of a size that is
6 arbitrarily considered to be small. Further, if such adjustments were
7 routinely allowed, an incentive would exist for large existing utilities to form
8 subsidiaries when merging or even to form smaller subsidiaries to obtain
9 higher allowed returns. Lastly, CWSNC operates in a franchise environment
10 that insulates the Company from competition, and it operates with
11 procedures in place that allow for rate adjustments for eligible capital
12 improvements and other unusual circumstances that impact its earnings.

13 Furthermore, CWSNC operates in the water and sewer industry, where
14 expensive bottled water provides the only alternative to water utility service.
15 It is factually correct that rating agencies and investors add a risk factor for
16 small companies with relatively limited capital resources; however, the
17 inherent protection from competition and the ability to recover capital costs
18 and operating costs removes this risk, which would otherwise be a concern
19 to investors.

1 I testified to these same concerns in CWSNC's rate case in Docket No. W-
2 354, Sub 360, where the Commission found that a size adjustment was not
3 warranted. Similar arguments were made in Docket No. W-778, Sub 31,
4 where CWS System, Inc.'s witness Hanley with AUS Consultants relied on
5 cost of capital methods similar to those used by Company witness
6 D'Ascendis, as noted on pages 824-825 in the Commission's Eighty-
7 Seventh Report of Orders and Decisions. The Commission also considered
8 a small size adjustment in a 1994 CWSNC rate case and was not
9 persuaded to accept an adjustment for small size and elevated risk, as
10 noted on page 520 in its Eighty-Fourth Report of Orders and Decisions. The
11 explicit consideration of the small size of a regulated utility was argued
12 before this Commission in a rate case involving North Carolina Natural Gas,
13 Inc. (NCNG) filed in Docket No. G-21, Sub 293. In an Order dated
14 December 6, 1991, the Commission disagreed with NCNG's witness who
15 testified that the Company's small size warranted the selection of other
16 small sized companies in his proxy group. The Commission stated on page
17 563 in its Eighty-First Report of Orders and Decisions:

18 Dr. Andrews selected a group of 16 companies, including NCNG,
19 in his DCF model (and his CAPM) because they are all publicly
20 traded, they are all small in size, and they are all principally in the
21 local gas distribution business. He testified that these companies
22 were the "best available" in terms of being comparable to NCNG.
23 In contrasting his comparable group to those of witness Hinton,
24 Dr. Andrews stated that it was better to have some similarity in
25 size among the companies even if this meant some dissimilarity

1 in financial attributes. The Commission disagrees. If a group of
2 companies is to be screened for comparability in terms of investor
3 expectations, financial attributes are far more relevant than size.

4 While there are published studies that address how the small size of a
5 company relates to higher risks, I am aware of only one study that focuses
6 on the size of regulated utilities and risk. See Annie Wong, Utility Stocks
7 and the Size Effect: An Empirical Analysis, Journal of the Midwest Finance
8 Association, 95 (1993).

9 Whereas, published journal articles generally rely on company size and
10 return data for a multitude of privately held companies covered by the
11 Center for Research in Security Prices⁹ (CRSP), any correlation between
12 the smaller size of a company and higher stock returns occurs for industrial
13 not utility stocks as Dr. Wong notes I. Dr. Wong tested the data to determine
14 whether there was a size premium in utilities and concluded the following:

15 [U]nlike industrial stocks, utility stocks do not exhibit a
16 significant size premium. As explained, there are several
17 reasons why such a size premium would not be attributable to
18 utilities because they are regulated closely by state and
19 federal agencies and commissions, and hence, their financial
20 performance is monitored on an ongoing basis by both the
21 state and federal governments.

⁹ Center for Research in Security Prices, University of Chicago, Booth School of Business, Chicago, IL.

1

VI. SUMMARY AND RECOMMENDATIONS2 **Q. Please summarize your cost of capital recommendations.**

3 A. My recommended overall weighted cost of capital for use in this proceeding
4 in the absence of a Commission-approved MYRP and as shown in Hinton
5 Exhibit 6 is 7.05%. The aforementioned cost is based upon a capital
6 structure that consists of 50.00% long-term debt and 50.00% common
7 equity, an embedded cost of long-term debt of 4.64%, and a cost of
8 common equity of 9.45%.

9 **Q. Does this conclude your testimony?**

10 A. Yes.

QUALIFICATIONS AND EXPERIENCE

JOHN ROBERT HINTON

I received a Bachelor of Science degree in Economics from the University of North Carolina at Wilmington in 1980 and a Master of Economics degree from North Carolina State University in 1983. I joined the Public Staff in May of 1985. I filed testimony on the long-range electrical forecast in Docket No. E-100, Sub 50. In 1986, 1989, and 1992, I developed the long-range forecasts of peak demand for electricity in North Carolina. I filed testimony on electricity weather normalization in Docket Nos. E-7, Sub 620, E-2, Sub 833, and E-7, Sub 989. I filed testimony on customer growth and the level of funding for nuclear decommissioning costs in Docket No. E-2, Sub 1023. I filed testimony on the level of funding for nuclear decommissioning costs in Docket Nos. E-7, Sub 1026 and E-7, Sub 1146. I have filed testimony on the Integrated Resource Plans (IRPs) filed in Docket No. E-100, Subs 114 and 125, and I have reviewed numerous peak demand and energy sales forecasts and the resource expansion plans filed in electric utilities' annual IRPs and IRP updates.

I have been the lead analyst for the Public Staff in numerous avoided cost proceedings, filing testimony in Docket No. E-100, Subs 106, 136, 140, 148, and Sub 158. I have filed a Statement of Position in the arbitration case involving EPCOR and Progress Energy Carolinas in Docket No. E-2, Sub 966. I have filed testimony in avoided cost related to the cost recovery of energy efficiency programs and demand side management programs in Dockets Nos. E-7, Sub 1032, E-7, Sub 1130, E-2, Sub 1145, and E-2, Sub 1174.

I have filed testimony on the issuance of certificates of public convenience and necessity (CPCN) in Docket Nos. E-2, Sub 669, SP-132, Sub 0, E-7, Sub 790, E-7, Sub 791, and E-7, Sub 1134.

I filed testimony on the merger of Dominion Energy, Inc. and SCANA Corp. in Docket Nos. E-22, Sub 551, and G-5, Sub 585.

I have filed testimony on the issue of fair rate of return in Docket Nos. E-22, Subs 333 412, and 532; P-26, Sub 93; P-12, Sub 89; G-21, Sub 293; P-31, Sub 125; P-100, Sub 133b; P-100, Sub 133d (1997 and 2002); G-21, Sub 442; G-5, Subs 327, 386; and 632; G-9, Subs 351, 382, 722 and Sub 781, G-39, Sub 47, W-778, Sub 31; W-218, Subs 319, 497, 526; W-354, Sub 360; 364, and in several smaller water utility rate cases. I have filed testimony on credit metrics and the risk of a downgrade in Docket No. E-7, Sub 1146.

I have filed testimony on the hedging of natural gas prices in Docket No. E-2, Subs 1001 and 1018. I have filed testimony on the expansion of natural gas in Docket No. G-5, Subs 337 and 372. I performed the financial analysis in the two audit reports on Mid-South Water Systems, Inc., Docket No. W-100, Sub 21. I testified in the application to transfer the CPCN from North Topsail Water and Sewer, Inc. to Utilities, Inc., in Docket No. W-1000, Sub 5. I have filed testimony on rainfall normalization with respect of water sales in Docket No. W-274, Sub 160.

With regard to the 1996 Safe Drinking Water Act, I was a member of the Small Systems Working Group that reported to the National Drinking Water Advisory Council of the U.S. Environmental Protection Agency. I have published an article in

the National Regulatory Research Institute's Quarterly Bulletin entitled Evaluating Water Utility Financial Capacity.

RISK MEASURES

VALUE LINE SAFETY RANK

The Safety Rank is a measure of the total risk of a stock. It includes factors unique to the company's business such as its financial condition, management competence, etc. The Safety Rank is derived by averaging two variables: the stock's Price Stability Index, and the Financial Strength Rating of the company. The Safety Rank ranges from 1 (Highest) to 5 (Lowest).

VALUE LINE BETA (β)

The Beta is derived from a regression analysis between weekly percent changes in the price of a stock and weekly percent price changes in the New York Stock Exchange Composite Index over a period of five years.

There has been a tendency over the years for high Beta stocks to become lower and for low Beta stocks to become higher. This tendency can be measured by studying Betas of stocks in five consecutive intervals. The Betas published in the *Value Line Investment Survey* are adjusted for this tendency and hence are likely to be better predictors of future Betas than those based exclusively on the experience of the past five years.

The New York Stock Exchange Composite Index is used as the basis for calculating the Beta because this index is a good proxy for the complete equity portfolio. Since Beta's significance derives primarily from its usefulness in portfolios rather than individual stocks, it is best constructed by relating to an overall market portfolio. The *Value Line* Index, because it weights all stocks equally, would not serve as well.

The security's return is regressed against the return on the New York Stock Exchange Composite Index over the past five years so that 259 observations of weekly price changes are used. *Value Line* adjusts its estimate of Beta (β_i) for regression described by Blume (1971). The estimated Beta is adjusted as follows:

$$\text{Adjusted } \beta_i = 0.35 + 0.67\beta$$

VALUE LINE FINANCIAL STRENGTH RATING

The Financial Strength Ratings are primarily a measure of the relative financial strength of a company. The rating considers key variables such as coverage of debt, variability of return, stock price stability, and company size. The Financial Strength Ratings range from the highest at A++ to the lowest at C.

VALUE LINE PRICE STABILITY INDEX

The Price Stability Index is based upon a ranking of the standard deviation of weekly percent changes in the price of a stock over the last five years. The top 5% carry a Price Stability Index of 100; the next 5%, 95; and so on down to an Index of 5.

VALUE LINE EARNINGS PREDICTABILITY INDEX

The Earnings Predictability Index is a measure of the reliability of an earnings forecast. The most reliable forecasts tend to be those with the highest rating (100), the least reliable (5).

S&P BETA (β)

The Beta is derived from a regression analysis between 60 months of price changes in a company's stock price (plus corresponding dividend yield) and the monthly price changes in the S&P 500 Index (plus corresponding dividend yield). Prices and dividends are adjusted for all subsequent stock splits and stock dividends.

S&P BOND RATING

The S&P Bond Ratings is an appraisal of the credit quality based on relevant risk factors. S&P reviews both the company's financial and business profiles. Shown below are the rankings:

INVESTMENT GRADE:

AAA Extremely strong capacity to meet financial commitments (highest rating)

AA Very strong capacity to meet financial commitments

A Strong capacity to meet financial commitments, but somewhat susceptible to adverse economic conditions and changes in circumstances

BBB Adequate capacity to meet financial commitments, but more subject to adverse economic conditions

BBB- considered the lowest investment-grade by market participants

SPECULATIVE GRADE:

BB+ Considered highest speculative grade by market participants

- BB Less vulnerable in the near-term by faces major ongoing uncertainties to adverse business, financial, and economic conditions
- B More vulnerable to adverse business, financial, and economic conditions but currently has the capacity to meet financial commitments
- CCC Currently vulnerable and dependent on favorable business, financial, and economic conditions to meet financial commitments
- CC Highly vulnerable; default has not yet occurred, but is expected to be a virtual certainty
- C Currently highly vulnerable to non-payment, and ultimate recovery is expected to be lower than that of higher rated obligations
- D Payment default on a financial commitment or breach of an imputed promise; also used when a bankruptcy petition has been filed or similar action taken

Note that ratings from “AA” to “CCC” may be modified by the addition of a plus (+) or minus (-) sign to show relative standing within the major rating categories.

S&P STOCK RANKING

The S&P Stock Rankings is an appraisal of the growth and stability of the company’s earnings and dividends over the past 10 years. The final score for each stock is measured against a scoring matrix determined by an analysis of the scores of a large and representative sample of stocks. Shown below are the rankings:

- A+ Highest
- A High
- A- Above average
- B+ Average
- B Below Average
- B- Lower
- C Lowest
- D In Reorganization
- NR Not rated

MOODY'S BOND RATING

Moody's Bond Ratings assign a rating on the creditworthiness of an obligor. Such ratings reflect both the likelihood of default and any financial loss suffered in the event of a default. Shown below are the rankings:

- Aaa Obligations rated Aaa are judged to be of the highest quality with minimal risk.
- Aa Obligations rated Aa are judged to be of the high quality and are subject to low credit risk.
- A Obligations rated A are considered upper-medium-grade and are subject to low credit risk.
- Baa Obligations rated Baa are subject to moderate credit-risk. They are considered medium-grade and are subject to substantial credit risk.
- Ba Obligations rated Ba are subject to have speculative and are subject to substantial credit risk.
- B Obligations rated B are considered speculative and are subject to high credit risk.
- Caa Obligations rated Caa are judged to be of poor standing and are subject to very high credit risk.
- Ca Obligations rated Ca are highly speculative and are likely in, or very near default with some prospect of recovery in principle and interest.
- C Obligations rated C are the lowest-grade class of bonds and are typically in default, with little prospect of recovery in principle and interest.

Sources:

1. *Value Line Investment Analyzer, Version 3.0.15a*, New York, NY.
2. Standard & Poor's, *Utility Compustat II*, September 15, 1993, New York, NY.

CAROLINA WATER SERVICE, INC. OF NORTH CAROLINA

DOCKET NO. W-354, SUB 400

SUMMARY OF JOHN R. HINTON

The purpose of my testimony is to present to the North Carolina Utilities Commission (Commission) the results of my analysis and my recommendations as to the fair rate of return to be used in establishing rates for water and sewer utility service provided by Carolina Water Service, Inc. of North Carolina (CWSNC or Company) in connection with the Company's Application for Authority to Adjust and Increase Rates and Charges for Water and Sewer Utility Service in All Service Areas of North Carolina and Approval of a Three-Year Water and Sewer Investment Plan (Application). The testimony that follows covers the following topics: (1) the fair rate of return for the Company's base case¹ filing, which is for the 12-month test year ending March 31, 2022, updated through August 31, 2022 (Base Year); and (2) the way in which I determined that rate of return. It does not include a substantive discussion of my analysis and recommendations relating to the fair rate of return if the Commission approves the Company's request for approval of a Three-Year Water and Sewer Investment Plan (WSIP) (hereinafter also referred to as Multi-Year Rate Plan or MYRP). My views on the Company's request for a MYRP are discussed in detail in the contemporaneously filed Joint Testimony of Public Staff witnesses Hinton, Junis, Sun, and Zhang (Joint Testimony).

The Company's currently approved cost of capital is 7.14% and is based on a capital structure composed of 50.20% long-term debt and 49.80% common equity, a cost rate of long-term debt of 4.85%, and a rate of return on common equity of 9.40%. These figures were approved by the Commission on April 5, 2022, in the Company's last general rate case, Docket No. W-354, Sub 384.

In the present case, the Public Staff recommends an overall rate of return of 7.05% based on the Company's proposed capital structure consisting of 50.00% common equity and 50.00% long-term debt, a recommended debt cost rate of 4.64%, and a 9.45% return on common equity.

This concludes my summary.

¹ A base year is the multi-year rate plan (MYRP) equivalent of the test year or test period in traditional historic test year ratemaking. The base year is the foundation of a MYRP because all future expenses, revenues, etc., are based upon the levels in the established in the base year. All data supporting a utility's base year can be referred to as the utility's base case.

1 **Q. Mr. Hinton, please state your name, business address, and**
2 **present position.**

3 A. My name is John R. Hinton. My business address is 430 North
4 Salisbury Street, Dobbs Building, Raleigh, North Carolina. I am the
5 Director of the Economic Research Division of the Public Staff –
6 North Carolina Utilities Commission (Public Staff).

7 **Q. Briefly state your qualifications and duties.**

8 A. My qualifications and duties are included in Appendix A.

9 **Q. Mr. Junis, please state your name, business address, and**
10 **present position.**

11 A. My name is Charles M. Junis. My business address is 430 North
12 Salisbury Street, Dobbs Building, Raleigh, North Carolina. I am the
13 Director of the Water, Sewer, and Telephone Division of the Public
14 Staff.

15 **Q. Briefly state your qualifications and duties.**

16 A. My qualifications and duties are included in Appendix B.

17 **Q. Ms. Sun, please state your name, business address, and**
18 **present position.**

19 A. My name is Kuei Fen Sun. My business address is 430 North
20 Salisbury Street, Dobbs Building, Raleigh, North Carolina. I am a
21 Financial Analyst III with the Accounting Division of the Public Staff.

1 **Q. Briefly state your qualifications and duties.**

2 A. My qualifications and duties are included in Appendix C.

3 **Q. Ms. Zhang, please state your name, business address, and**
4 **present position.**

5 A. My name is Fenge Zhang. My business address is 430 North
6 Salisbury Street, Dobbs Building, Raleigh, North Carolina. I am the
7 Financial Manager - Electric Section with the Accounting Division of
8 the Public Staff.

9 **Q. Briefly state your qualifications and duties.**

10 A. My qualifications and duties are included in Appendix D.

11 **Q. What is the purpose of the Public Staff's testimony?**

12 A. The purpose of the Public Staff's testimony is to present to the North
13 Carolina Utilities Commission (Commission) the Public Staff's
14 recommendations regarding the Water and Sewer Investment Plan
15 (WSIP) of Carolina Water Service, Inc. of North Carolina's (CWSNC
16 or the Company) Application for Authority to Adjust and Increase
17 Rates and Charges for Water and Sewer Utility Service in All Service
18 Areas of North Carolina and Approval of a Three-Year Water and
19 Sewer Investment Plan (Application). The WSIP is a multi-year rate
20 plan (MYRP) mechanism, which allows for "annual rate changes for
21 a three-year period based on reasonably known and measurable
22 capital investments and anticipated reasonable and prudent

1 expenses approved under the plan without the need for a base rate
2 proceeding during the plan period.” See North Carolina Gen. Stat. §
3 62-133.1B(a). A base year is the MYRP equivalent of the test year
4 or test period in traditional historic test year ratemaking. The base
5 year is the foundation of a MYRP because all future expenses,
6 revenues, etc., are based upon the levels established in the base
7 year. All of the data supporting a utility’s base year can be referred
8 to as the utility’s base case. Base Case and Base Year references in
9 this testimony refer to the Company’s Base Case and Base Year.

10 **Q. Please provide an overview of the issues about which each**
11 **witness will be testifying.**

12 A. The table below shows the order in which the Public Staff’s analysis
13 and recommendations are presented, identifies which witnesses are
14 providing testimony on various aspects of the Public Staff’s analysis
15 and recommendations, and provides the page on which testimony
16 specific to each issue begins.

Issue	Witness(es)	Location in Testimony
High-level Assessment of the Company's WSIP	Junis, Sun, and Zhang	Page 5 through 12
Public Staff's Primary Recommendation #1: Denial of the Company's WSIP Request	Junis, Sun, and Zhang	Pages 12 through
Public Staff's Alternate Recommendation: Approval of a Modified WSIP		
A. Base Year and Rate Years		
B. Revenue Requirements	Junis, Sun, and Zhang	Pages 23 through 27
C. Pro Forma Revenues	Junis	Pages 27 through 29
D. Base Rates	Junis	Pages 29 through 31
E. Percent Increase of the Service Revenue During the WSIP	Junis	Pages 31 through 33
F. Magnitude of Rate Adjustments	Sun and Zhang	Pages 33 and 34
G. Cost of Service Adjustments	Junis, Sun, and Zhang	Pages 34 through 53
H. Performance-based Metrics (PBMs)	Junis	Pages 53 through 59
I. Cost of Capital	Hinton	Pages 59 through 65
J. Annual Review Process	Sun and Zhang	Pages 65 through 67
K. Refund of Excess Earnings	Sun and Zhang	Page 67
L. Assessment of the Public Staff's Recommended WSIP	Junis, Sun, and Zhang	Pages 67 and 68

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1 **Q. Is the Public Staff providing any exhibits with this testimony?**

2 A. Yes. There are a total of 10 exhibits. The table below describes each
3 exhibit and identifies the proponent(s) of each exhibit.

Exhibit	Proponent(s)
Public Staff WSIP Exhibit 1	Sun and Zhang
Public Staff WSIP Exhibit 2	Junis
Public Staff WSIP Exhibit 3	Junis
Public Staff WSIP Exhibit 4	Junis
Public Staff WSIP Exhibit 5	Junis
Public Staff WSIP Exhibit 6	Hinton
Public Staff WSIP Exhibit 7	Hinton
Public Staff WSIP Exhibit 8	Hinton
Public Staff WSIP Exhibit 9	Hinton
Public Staff WSIP Exhibit 10	Hinton

4 **I. Assessment of the Company's WSIP**

5 **Q. Does the Company's proposed WSIP establish rates that are fair**
6 **to the customer and the utility?**

7 A. No. The Public Staff recommends denial of CWSNC's proposed
8 WSIP for multiple reasons, which are detailed further below in this
9 testimony. If the Commission approves a WSIP, the Public Staff
10 recommends significant modifications to the WSIP, including to
11 revenues, expenses, and utility plant in service in the Company's
12 Base Case Application based on a traditional historic 12-month test
13 period ending March 31, 2022, updated to August 31, 2022 (Base
14 Case), and Rate Years 1 through 3 of the Company's proposed
15 WSIP, to establish rates that are fair to the customer and the utility.

1 Otherwise, as proposed, the Company's rates are not justified by the
2 cost of service and therefore unfair to the customer.

3 **Q. Does the Company's proposed WSIP reasonably ensure**
4 **continuation of safe and reliable utility service?**

5 A. Yes. However, safe and reliable utility service is already a
6 requirement of public utilities in North Carolina. Commission Rule
7 R7-7 states, "All water production, treatment, storage, and
8 distribution facilities shall comply with the rules of the North Carolina
9 Department of Environment, Health and Natural Resources and the
10 rules of other state and local governmental agencies governing
11 public water systems." Likewise, Commission Rule R10-7 states, "All
12 public sewer utilities shall comply with the rules of the North Carolina
13 Department of Environment and Natural Resources and the rules of
14 other state and local governmental agencies in the design,
15 construction, operation, and maintenance of its sewer facilities and
16 in the collection, treatment and discharge of the sewage being
17 treated." Furthermore, Commission Rule R7-12 states the following:

18 (a) Every water utility shall comply with the rules of the
19 North Carolina Department of Environment and Natural
20 Resources and the rules of other state and local
21 governmental agencies governing purity of water,
22 testing of water, operation of filter plant, and such other
23 lawful rules as those agencies prescribe.

24 (b) All water being supplied by water utilities subject to
25 the jurisdiction of the North Carolina Utilities
26 Commission is required, as a minimum, to meet the
27 standards of water quality as set forth in the United
28 States Safe Drinking Water Act enacted in 1974 and as

1 amended in 1986; provided, that upon application in
2 writing to the Commission and approval of the
3 Commission in writing, a water utility may have a
4 specified deviation or tolerance from the mineral
5 content requirements of said United States Safe
6 Drinking Water Act enacted in 1974 and as amended
7 in 1986, based upon regional water characteristics or
8 conditions and upon the economic feasibility of
9 providing treatment to the water or of locating alternate
10 sources of water.

11 The requirement that Commission-regulated utilities provide safe
12 and reliable service is a minimum standard that should already be
13 met and continue to be met, with or without an approved WSIP.

14 **Q. Does the Company's proposed WSIP result in a sudden**
15 **substantial rate increase to customers annually or over the**
16 **length of the WSIP?**

17 A. Yes. On page 11 of the Company's Application, the following
18 increases in service revenues (percentage increase) are requested
19 as part of the Company's alternative proposal¹ and WSIP:

¹ On page 10 of the Application, the Company request a 10.45% ROE if the Commission denies the Company's WSIP request.

	Base Case ²	Rate Year 1	Rate Year 2	Rate Year 3
Total	\$4,069,409 (9.07%)	\$8,847,255 (19.70%)	\$2,682,335 (4.99%)	\$2,620,032 (4.64%)
Uniform Water	\$1,668,856 (7.31%)	\$3,672,513 (16.09%)	\$1,056,012 (3.99%)	\$1,052,076 (3.82%)
Uniform Sewer	\$1,766,491 (10.07%)	\$3,920,924 (22.35%)	\$1,230,833 (5.73%)	\$1,329,317 (5.86%)
BF/FH/TC Water	\$ 236,751 (12.59%)	\$ 613,607 (32.62%)	\$ 142,391 (5.71%)	\$ 103,315 (3.92%)
BF/FH/TC Sewer	\$ 397,311 (15.09%)	\$ 640,211 (24.31%)	\$ 253,099 (7.73%)	\$ 135,324 (3.84%)

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The Company's proposed service revenue increase for Rate Year 1 is **more than double** the Base Case increase utilizing the traditional historic test year rate case methodology, which the Company proposes as its alternative. The overall service revenue increase over the length of the WSIP is **more than triple** the historic test year. The Company's proposed WSIP would result in sudden substantial rate increases to customers at the onset and over the length of the WSIP.

In Schedule B of the Company's updates to its Application filed on September 19, 2022 (Update), the following increases in service revenues (percentage increase) are requested as part of its alternative proposal and WSIP:

² Base Case is based on the historical test year treated as a traditional rate case

	Base Case ³	Rate Year 1	Rate Year 2	Rate Year 3
Total	\$4,585,517 (10.21%)	\$8,782,302 (19.56%)	\$4,272,528 (7.96%)	\$3,475,926 (6.00%)
Uniform Water	\$1,996,969 (8.75%)	\$3,925,358 (17.20%)	\$1,516,663 (5.67%)	\$1,292,020 (4.57%)
Uniform Sewer	\$2,039,358 (11.61%)	\$3,691,778 (21.02%)	\$1,878,080 (8.84%)	\$1,573,385 (6.80%)
BF/FH/TC Water	\$ 212,196 (11.28%)	\$ 571,596 (30.39%)	\$ 238,519 (9.72%)	\$ 179,601 (6.67%)
BF/FH/TC Sewer	\$ 336,994 (12.80%)	\$ 593,570 (22.54%)	\$ 639,266 (19.81%)	\$ 430,920 (11.14%)

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The Company's Update only further exacerbates the sudden substantial rate increases to customers at the onset and over the length of the WSIP.

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The base of the Rate Year 1 increase is the rate increase that would have been requested as part of a historic test year case, including pro forma, known and measurable, adjustments. However, Rate Year 1 also includes prospective rate recovery for expense levels and capital investment estimated to be incurred post post-test year and during the Rate Year 1 period. This puts unprecedented upward pressure on rates due to the prospective increases in expenses and extended period of capital investment, September 2022 through March 2024, to be included in the cost of service beyond the test year and typical update period. The concept is illustrated by the

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³ Base Case is based on the historical test year treated as a traditional rate case.

1 difference in the magnitude of the Base Case and Rate Year 1
2 revenue increases compared to present rates approved in the
3 Company's last general rate case filed Docket No. W-354, Sub 384
4 (Sub 384 Rate Case).

5 **Q. Does the Company's proposed WSIP represent the Company's**
6 **operations over the WSIP term?**

7 A. Yes. As discussed in Company witness Drennan's direct testimony,
8 CWSNC made adjustments to the Company's proposed Base Year
9 expense amounts to arrive at its proposed revenue requirements for
10 each of the three Rate Years. The adjustments included inflation and
11 an annual growth factor for many Operation and Maintenance
12 Expense (O&M) adjustments, and specific factors for select O&M
13 adjustments. A few expenses, such as purchased water and sewer,
14 rate case expense, and excess deferred income taxes (EDIT), were
15 not subject to any increment factors.

16 As discussed later in this testimony, the Public Staff has proposed
17 several changes in methodology to the Company's proposed WSIP
18 over the WSIP term. The Public Staff believes that with these
19 proposed changes, the WSIP will represent the Company's
20 operations over the WSIP term, assuming the proposed merger has
21 no impact on the Company's operations during the term of the WSIP,
22 which, as discussed more fully below, is extremely unlikely.

1 **Q. Does the Company's proposed WSIP align with the public**
2 **interest?**

3 A. No. First, procedurally the Commission and Public Staff are tasked
4 with reviewing, investigating, and modifying an application that is
5 essentially four times larger than a traditional rate case (Base Case
6 plus Rate Years 1 through 3 instead of test year) with no additional
7 time, as the statute did not extend the 270-day rate suspension
8 period. Second, the Company's proposed WSIP seeks prospective
9 recovery of estimated costs during a period of heightened
10 uncertainty. Third, the Company has failed to show innovation or
11 effort to reduce its expenses and capital costs as inflation has
12 increased costs, contributions in aid of construction (CIAC) of original
13 plant become fully amortized during the term of the WSIP, and
14 investment to replace and upgrade plant is further needed.
15 Additionally, the Company does not propose any performance
16 metrics to measure or incentivize cost efficiency and effectiveness.

17 **II. Denial of Request for WSIP**

18 **Q. Does the Public Staff support the Company's request for a**
19 **WSIP?**

20 A. No, the Public Staff opposes the Company's request for a WSIP for
21 three reasons: (1) the pending merger between the Company's
22 parent entity, Corix Infrastructure, Inc. (Corix), and SouthWest Water
23 Company (SWW); (2) the Company requested a higher return on

1 equity (ROE) in its proposed WSIP than it sought in its alternate
2 request that rates be set using an historic test year; and (3) the
3 continued projected economic volatility and uncertainty.

4 **Q. Briefly discuss the Public Staff's understanding of the pending
5 merger between Corix and SWW referenced above.**

6 A. According to a joint press release issued on August 29, 2022
7 (attached as Public Staff WSIP Exhibit 2), Corix and SWW "have
8 entered into a definitive agreement under which [SWW] and Corix's
9 water and wastewater businesses will combine in a merger of equals
10 to create a leading regulated water and wastewater utility." The press
11 release states that "the transaction is expected to close by the end
12 of 2023, subject to the satisfaction of all required regulatory
13 approvals and customary closing conditions." Based upon initial
14 conversations with representatives of Corix and SWW, CWSNC will
15 be a downstream subsidiary of the new combined entity.

16 **Q. Describe the financial, management, and operational
17 challenges that utilities experience following a merger.**

18 A. A merger of utilities is an unusual and significant event that
19 introduces numerous uncertainties into the operations and finances
20 of all involved parties. Mergers and acquisitions entail a
21 consolidation of systems and personnel across the newly formed
22 organization, frequently resulting in redundancies. Duplicative
23 governance, information technology, human resources, customer

1 service, financial systems, and personnel can persist well into the
2 integration process. Each step in this process impacts how expenses
3 associated with personnel and assets are allocated across the utility.

4 This uncertainty flows through to the projected capital and O&M
5 budgets of merging entities. While utility service and operations must
6 continue uninterrupted, the strategic direction and investments of a
7 newly combined company are subject to change. The strategic
8 operational and investment priorities of a stand-alone company may
9 not be the same once that company merges with another. Thus, once
10 a merger is completed, the projected budgets and revenue
11 requirements may quickly fail to resemble the reality that existed at
12 the time new rates were placed into effect.

13 The financial profile of a newly merged utility is also subject to
14 uncertainty. With the combination of multiple business entities, the
15 debt profiles and credit ratings of the surviving entities are impacted
16 in a manner that may be either positive, neutral, or negative. The
17 ability of downstream entities to access capital from parent entities is
18 also impacted, potentially resulting in lower or higher costs that will
19 be borne by customers.

20 Academic research has shown that a pending merger creates
21 uncertainty regarding future costs that are borne by a utility's
22 ratepayers. As discussed in the paper entitled "Strengthening

1 Utilities Through Consolidation: The Financial Impact” that is co-
2 authored by US Water Alliance and UNC School of Government’s
3 Environmental Finance Center, “consolidations can trigger a
4 cascade of avoided future costs to a local utility, which can then be
5 passed on to customers in the form of savings. But, in the near-term,
6 some communities will face increased costs to address regulatory
7 requirements and infrastructure investment backlogs.”⁴

8 **Q. Does the pending merger of Corix and SWW raise the**
9 **forementioned concerns with respect to the Company’s**
10 **finances, management, and operations going forward?**

11 A. Yes. The pending merger introduces uncertainty regarding future
12 costs that undermines the accuracy of the Company’s financial
13 forecasts. As stated above, the merger is intended to be closed by
14 the end of 2023, which is during Rate Year 1 and only approximately
15 25% into the duration of CWSNC’s proposed WSIP. This
16 exasperates the aforementioned concerns about how reasonably
17 known and measurable the Company’s cost of service is in future
18 years. It is sufficiently difficult to produce accurate financial forecasts
19 three years into the future, but much more so when upstream
20 ownership and management will be in flux during that time.

⁴ US Water Alliance and UNC School of Government Environmental Finance Center, *Strengthening Utilities Through Consolidation: The Financial Impact*, 2019.

1 The integration of merged companies does not occur overnight.
2 Integration costs can impose financial burdens while customers
3 await the promised benefits of consolidated systems and enhanced
4 buying power from increased economies of scale. In a period of
5 increasing costs, customers should receive the immediate and full
6 benefit of optimizations, consolidations, and other efficiencies that
7 should accompany a business combination.

8 **Q. Have Corix and SWW filed a merger application with the**
9 **Commission?**

10 A. No, as of the date of this filing, Corix and SWW have not filed a joint
11 merger application with the Commission. This underscores the
12 challenges associated with proceeding with a WSIP at this time.
13 While a merger application is but the first step in the regulatory
14 approval process, the application provides initial and important
15 insight into the proposed financial, management, and operational
16 plans of the newly merged utility. Absent such information and
17 investigation, the Public Staff has no confidence that the Company's
18 WSIP projections will remain accurate as the merger integration
19 overlays multiple future Rate Years.

1 **Q. How would denial of the Company's WSIP address the concerns**
2 **laid out above?**

3 A. Denying the Company's WSIP request in this case ensures that rates
4 will not be established using data and figures that are immediately
5 rendered obsolete due to the subsequent business combination of
6 Corix and SWW. It avoids misaligned cost allocations, overstated
7 personnel costs resulting from reduced staff levels that are not
8 flowed through to rates, and foregone efficiencies that may overstate
9 expenses borne by customers, resulting in rates that are not just and
10 reasonable.

11 Denial of the WSIP does not deprive the Company of necessary rate
12 relief as it can still recover its prudently incurred costs and pro forma
13 expenses while continuing to avail itself of the consumption
14 adjustment mechanism and Water System Improvement Charge and
15 Sewer System Improvement Charge (WSIC/SSIC). Utilizing a
16 historic test year allows Corix and SWW to proceed with the
17 proposed merger and consolidate their financial, management, and
18 operations and bring forward an accurately forecasted WSIP once
19 full integration has been achieved.

20 Denial of the WSIP would promote judicial economy by avoiding the
21 high likelihood that the Company's WSIP would need to be reopened
22 pursuant to N.C.G.S § 62-133.1B(f) following the merger. As the

1 merger will materially alter financial, management, and operational
2 aspects of the Company, the public interest will likely warrant
3 revisiting the WSIP decision to ensure that rates remain just and
4 reasonable for North Carolina customers. The WSIP was designed
5 to reduce regulatory burden and expense, yet it will produce the
6 opposite result in the shadow of a pending merger if the case must
7 be reopened.

8 **Q. If the Commission approves a WSIP, what protections should**
9 **be included for the benefit of customers?**

10 A. The Commission should establish a regulatory liability to ensure that
11 any cost savings or other benefits that would have been realized by
12 customers as a result of the merger are captured and flowed through
13 to customers in a future rate case. Customers should not be deprived
14 of potential merger benefits associated with lower personnel
15 expenses resulting from eliminated employees, reduced overhead
16 due to broader corporate allocations, and potentially reduced
17 borrowing costs simply due to the Company's decision to pursue a
18 WSIP while Corix pursues a merger with SWW.

19 **Q. Is the Company's request for a higher ROE under a WSIP in the**
20 **public interest?**

21 A. No. One of the purported benefits of a WSIP is the reduction of
22 regulatory lag, which theoretically hinders the Company's ability to

1 timely and fully recover its prudently incurred costs.⁵ Reduced
2 regulatory lag results in lower risk to the Company and its
3 shareholders as it allows more contemporaneous cost recovery.
4 Reduced risk to shareholders should result in those shareholders
5 requiring a lower rate of return to invest in the Company. However,
6 in this case the Company has turned this logic on its head and
7 instead seeks a higher ROE as a result of pursuing a WSIP.

8 The Company requests a 10.45 percent ROE using an historic test
9 year that would establish rates for the Base Year. Despite the
10 reduced risk associated with a WSIP that projects costs and allows
11 projected/contemporaneous cost recovery, the Company is
12 requesting an ROE of 10.7 percent if the WSIP is approved. The
13 Company is essentially saying that the WSIP presents greater risks
14 and that customers should compensate shareholders for that risk
15 with a higher ROE. While this runs counter to established regulatory
16 principles and is extremely unreasonable, it fortunately has a very
17 simple solution: denial of the WSIP.

18 The WSIP is a discretionary mechanism and may be denied by the
19 Commission if it is deemed contrary to the public interest. Approving
20 a discretionary rate recovery mechanism that warrants (in the

⁵ Regulatory lag benefits customers by providing a check on utility spending between rate cases.

1 Company's view) a higher rate of return would clearly run contrary to
2 the public interest. Customers should not be required to compensate
3 shareholders with a higher ROE simply because the Company has
4 chosen to pursue a WSIP rather than a traditional rate case,
5 especially when the reduction in regulatory lag lowers risks to the
6 shareholders. As the Company has not shown that it is entitled to a
7 WSIP, customer interests are better served by denying the WSIP in
8 favor of a historic test year with a lower rate of return.

9 **Q. Why do current economic conditions warrant denial of the**
10 **Company's requested WSIP?**

11 A. It is widely recognized that current economic conditions in the US
12 and around the globe are chaotic and unpredictable. Inflation is the
13 primary indicator of those economic conditions, approaching levels
14 that have not been seen since the 1970s. The Federal Reserve is
15 taking steps to combat inflation, but the efficacy of those measures
16 has yet to be determined.

17 The increased upward pressure on the cost of goods and services
18 will drive rates up as they are set in the present case. If inflation
19 decreases as expected, the aforementioned costs will decrease as
20 well, but to the extent rates are based upon those increased costs,
21 the benefits of a utility's reduced costs will not reach ratepayers. The
22 risk and harm to customers of paying inflated rates are compounded
23 under a forward-looking ratemaking construct because the rates set

1 during a period of high inflation are, essentially, locked in for the
2 duration of the approved WSIP. Traditional ratemaking is more
3 appropriate in the present situation because the revenue
4 requirement upon which rates are based is determined using the
5 utility's actual costs – not forecasts of expenses and capital
6 expenditures with questionable underpinnings.

7 North Carolina's use of an adjusted historic test year and a utility's
8 ability to update its expenses through the close of the evidentiary
9 hearing help insulate the utility from the harm of unrecoverable
10 increases in costs. In the instant case, the Company's update
11 captures five months of increased costs but fails to account for
12 expected decreases in inflation going forward. Any additional
13 inflation adjustments compound the risk of harm to ratepayers.

14 **Q. Does the earnings band protect customers against the utility**
15 **over-earning as a result of reduced future inflation?**

16 A. No, not entirely. While the utility is required to refund earnings that
17 exceed the high-end of the earnings band, this does not mean
18 customers are held harmless from inaccurately forecasted inflation
19 figures. Assuming the earnings band is established at 50 basis points
20 above and below the ROE mid-point, the Company will need to over-
21 earn by more than 50 basis points for customers to receive a refund.
22 If, for example, future inflation rates decline and account for only 40
23 basis points in earnings above the midpoint, customers would

1 receive no refund, because the over-earnings would have failed to
2 exceed the 50 basis point threshold. Thus, customers would overpay
3 as a result of inaccurate inflation figures embedded in rates.
4 Customers should not pay rates that are higher as a result of flawed
5 inflation projections simply because the Company's earnings fall
6 within the earnings band.

7 The simplest way to protect customers and avoid such a scenario is
8 to deny the WSIP until economic conditions have stabilized and
9 economic figures can be more accurately projected across the three
10 years of the WSIP.

11 **III. Alternative Recommendation: Approval of a Modified WSIP**

12 **A. Base Year and Rate Years**

13 **Q. What Base Year has the Company proposed?**

14 A. The Company proposed the twelve-month period ended on March
15 31, 2022.

16 **Q. Does the Public Staff have any concerns with the Company's
17 proposed Base Year?**

18 A. The Public Staff does not have serious concerns with the Company's
19 proposed Base Year. It generally aligns with the procedural timeline
20 and provides reasonably up-to-date information. For further details
21 see discussion of proposed Rate Years below.

1 **Q. What Rate Years did the Company propose for the three 12-**
2 **month periods covered by the Plan?**

3 A. The Company's proposed Rate Years are shown in the table below.

Year 1	April 1, 2023 – March 31, 2024
Year 2	April 1, 2024 – March 31, 2025
Year 3	April 1, 2025 – March 31, 2026

4 **Q. Does the Public Staff have any concerns with the Company's**
5 **proposed Rate Years?**

6 A. The Public Staff does not have serious concerns with the Company's
7 proposed Rate Years. Ideally, the Rate Year 1 rates would be noticed
8 to customers and take effect subsequent to the Commission's order
9 approving the WSIP with the Public Staff's recommended
10 modifications. Consistent with comments⁶ filed jointly by CWSNC
11 and Aqua and based on the filing date of July 1, 2022, and
12 suspension period, Rate Year 1 should have been May 1, 2023,
13 through April 30, 2024. To properly shift the Base Year and Rate
14 Years after filing would have required adjustments to almost every
15 aspect of the rate case. Due to the Company proposing a Rate Year
16 1 effective date before the expiration of the rate suspension period,
17 the Public Staff recommends that the Commission not utilize its
18 authority to establish an experience modification factor (EMF) to

⁶ The Companies' proposed Rule R1-17(l)(3)(b)(i) states, "Identification of the Test Year and three Rate Year periods. The first Rate Year must not begin earlier than the first day following the end of the statutory suspension period under G.S. 62-134." The comments were filed on October 19, 2021, in Docket No. W-100, Sub 63.

1 account for a possible delay between the implementation of Rate
2 Year One tariff rates and the effective date of Rate Year One
3 pursuant to Commission Rule R1-17A(h).

4 **B. Revenue Requirements**

5 **Q. What revenue requirement did the Company propose for each**
6 **Rate Year by rate base division?**

7 A. The Company's updated proposed revenue requirements for each
8 Rate Year by rate division are shown below.

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WSIP Year 1

Uniform Rate Group Revenue Requirement			
WSIP Year 1	Water	Sewer	Total
	CWS - NC Uniform	CWS - NC Uniform	CWS - NC Uniform
Rate Base	80,609,087	75,544,568	156,153,655
Operating revenue deductions			
Maintenance expenses	4,957,436	4,711,260	9,668,696
General expenses	10,285,017	6,067,141	16,352,158
Depreciation expense	4,262,827	3,672,119	7,934,946
Amortization of CIAC	(734,515)	(626,276)	(1,360,791)
Amortization of PAA	(117,511)	(17,455)	(134,966)
Amortization of ITC	(265)	(254)	(520)
TOTI	522,056	353,423	875,478
Total operating revenue deductions	19,175,045	14,159,957	33,335,002
Net operating income for a return			
Debt service return	1,872,565	1,754,915	3,627,480
Equity return	5,606,236	5,254,007	10,860,243
Revenue requirement	\$26,653,846	\$21,168,879	\$47,822,725
Misc Revenues	(90,390)	(73,544)	(163,935)
Bad Debt	178,076	156,395	334,472
Total Service Revenues	\$26,741,532	\$21,251,730	\$47,993,262

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BF/FH/TC Rate Group Revenue Requirement			
WSIP Year 1	Water	Sewer	Total
	BF/FH/TC	BF/FH/TC	BF/FH/TC
Rate Base	5,604,875	10,940,475	16,545,350
Operating revenue deductions:			
Maintenance expenses	457,101	523,561	980,662
General expenses	1,196,982	1,217,234	2,414,216
Depreciation expense	250,776	500,305	751,081
Amortization of CIAC	(57,782)	(150,831)	(208,613)
Amortization of PAA	15,875	43,907	59,782
Amortization of ITC	-	-	-
TOTI	46,079	47,641	93,720
Total operating revenue deductions	1,909,031	2,181,817	4,090,848
Net operating income for a return:			
Debt service return	130,202	254,149	384,351
Equity return	389,810	760,893	1,150,703
Revenue requirement	\$2,429,043	\$3,196,859	5,625,902
Misc. Revenues	(7,861)	(12,471)	(20,332)
Bad Debt	\$31,526	\$42,836	74,362
Total Service Revenues	\$2,452,708	\$3,227,224	\$5,679,932

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WSIP Year 2

Uniform Rate Group Revenue Requirement			
WSIP Year 2	Water	Sewer	Total
	CWS - NC Uniform	CWS - NC Uniform	CWS - NC Uniform
Rate Base	89,254,773	88,963,534	178,218,307
Operating revenue deductions:			
Maintenance expenses	5,052,424	4,797,856	9,850,280
General expenses	10,615,560	6,247,956	16,863,517
Depreciation expense	4,520,593	4,004,811	8,525,404
Amortization of CIAC	(734,515)	(626,276)	(1,360,791)
Amortization of PAA	(117,511)	(17,455)	(134,966)
Amortization of ITC	(265)	(254)	(520)
TOTI	543,186	372,586	915,771
Total operating revenue deductions	19,879,473	14,779,222	34,658,696
Net operating income for a return:			
Debt service return	2,073,406	2,066,641	4,140,047
Equity return	6,207,530	6,187,275	12,394,805
Revenue requirement	\$28,160,409	\$23,033,138	\$51,193,547
Misc. Revenues	(90,390)	(73,544)	(163,935)
Bad Debt	\$188,176	\$170,216	358,393
Total Service Revenues	\$28,258,195	\$23,129,810	\$51,388,005

2

BF/FH/TC Rate Group Revenue Requirement			
WSIP Year 2	Water	Sewer	Total
	BF/FH/TC	BF/FH/TC	BF/FH/TC
Rate Base	7,183,044	15,703,704	22,886,748
Operating revenue deductions:			
Maintenance expenses	467,306	543,766	1,011,072
General expenses	1,240,071	1,268,381	2,508,452
Depreciation expense	283,962	614,181	898,144
Amortization of CIAC	(57,782)	(150,831)	(208,613)
Amortization of PAA	15,875	43,907	59,782
Amortization of ITC	-	-	-
TOTI	48,630	51,267	99,898
Total operating revenue deductions	1,998,062	2,370,672	4,368,734
Net operating income for a return:			
Debt service return	166,864	364,800	531,664
Equity return	499,570	1,092,168	1,591,738
Revenue requirement	\$2,664,496	\$3,827,640	6,492,136
Misc. Revenues	(7,861)	(12,471)	(20,332)
Bad Debt	\$34,592	\$51,321	85,913
Total Service Revenues	\$2,691,227	\$3,866,490	\$6,557,717

3

1

WSIP Year 3

Uniform Rate Group Revenue Requirement			
WSIP Year 3	Water	Sewer	Total
	CWS - NC Uniform	CWS - NC Uniform	CWS - NC Uniform
Rate Base	96,072,690	101,139,957	197,212,646
Operating revenue deductions:			
Maintenance expenses	5,148,398	4,684,953	9,833,352
General expenses	10,954,178	6,432,172	17,386,350
Depreciation expense	4,716,018	4,346,704	9,062,722
Amortization of CIAC	(734,515)	(626,276)	(1,360,791)
Amortization of PAA	(117,511)	(17,455)	(134,966)
Amortization of ITC	(265)	(254)	(520)
TOII	564,027	391,474	955,502
Total operating revenue deductions	20,530,331	15,211,317	35,741,648
Net operating income for a return:			
Debt service return	2,231,788	2,349,501	4,581,289
Equity return	6,681,706	7,034,126	13,715,832
Revenue requirement	\$29,443,825	\$24,594,944	\$54,038,769
Misc. Revenues	(90,390)	(73,544)	(163,935)
Bad Debt	\$196,780	\$181,795	378,576
Total Service Revenues	\$29,550,215	\$24,703,195	\$54,253,410

2

BF/FH/TC Rate Group Revenue Requirement			
WSIP Year 3	Water	Sewer	Total
	BF/FH/TC	BF/FH/TC	BF/FH/TC
Rate Base	8,227,779	18,794,417	27,022,196
Operating revenue deductions:			
Maintenance expenses	479,172	564,777	1,043,949
General expenses	1,281,552	1,317,787	2,599,340
Depreciation expense	308,894	679,268	988,162
Amortization of CIAC	(57,782)	(150,831)	(208,613)
Amortization of PAA	15,875	43,907	59,782
Amortization of ITC	-	-	-
TOII	50,716	54,212	104,927
Total operating revenue deductions	2,078,427	2,509,120	4,587,547
Net operating income for a return:			
Debt service return	191,133	436,598	627,731
Equity return	572,229	1,307,122	1,879,351
Revenue requirement	\$2,841,789	\$4,252,840	7,094,629
Misc. Revenues	(7,861)	(12,471)	(20,332)
Bad Debt	\$36,900	\$57,041	93,941
Total Service Revenues	\$2,870,828	\$4,297,410	\$7,168,238

3

1 **Q. Does the Public Staff have any concerns with the Company's**
2 **proposed revenue requirements shown above?**

3 A. Yes. As previously discussed, the Public Staff has recommended
4 adjustments regarding several expense inflation factors applied to
5 O&M expenses, as well as the Company's projected plant in service
6 and proposed rate of return for all three WSIP Rate Years. The Public
7 Staff included the proposed adjustments in Public Staff WSIP Exhibit
8 1.

9 **Q. What revenue requirements does the Public Staff recommend?**

10 A. The Public Staff's recommended revenue requirements for Rate
11 Years 1, 2, and 3 are shown in Public Staff WSIP Exhibit 1,
12 Schedules RY 1, RY 2, RY 3 .

13 **Q. Why are the Public Staff's recommended revenue requirements**
14 **more appropriate than the Company's?**

15 A. As discussed later in the testimony, the Public Staff recommends
16 several adjustments to both rate base and O&M expenses which
17 better represent the Company's costs of providing reliable water and
18 sewer service to ratepayers over the three-year WSIP period.

19 **C. Pro Forma Revenues**

20 **Q. What pro forma revenues did the Company propose for each**
21 **Rate Year by rate base division?**

1 A. The Company's proposed pro forma revenues are shown in
2 CWSNC's updated Schedule B provided with the Company's
3 Update.

4 **Q. Does the Public Staff have any concerns with the Company's**
5 **proposed proforma revenues?**

6 A. Yes. As described on page 12 of the Direct Testimony of Public Staff
7 witness Lindsay Darden, which is being filed contemporaneously in
8 this docket, the Company provided an update to the rates in its billing
9 analysis, but did not update end of period (EOP) customers or
10 consumption through August 31, 2022. The Public Staff's billing
11 analysis updated EOP customers and usage to reflect the 12-month
12 period ending August 31, 2022, as further detailed on pages 7 and 8
13 of Public Staff witness Darden's testimony referenced above.

14 The Public Staff does not agree with the Company's customer growth
15 factors used in its proposed pro forma revenue calculations, as
16 described in Public Staff witness Darden's testimony on pages 12
17 through 16. The Public Staff's recommended customer growth
18 factors are shown in Darden Exhibit 10.

19 **Q. What pro forma revenues does the Public Staff recommend?**

20 A. The Public Staff's recommended pro forma revenues at the
21 Company's proposed rates are described in Public Staff witness
22 Darden's testimony on pages 5 through 6. A summary of the Public

1 Staff's pro forma revenues at the Company's proposed rates is
 2 shown in the table below (Darden Table 1 in Public Staff witness
 3 Darden's testimony).

Rate Entity	Present Rates	Proposed (Base Year) Rates ⁷	WSIP Year 1 Rates	WSIP Year 2 Rates	WSIP Year 3 Rates
Uniform Water ⁸	\$22,276,705	\$23,906,083	\$26,071,578	\$27,208,719	\$28,350,864
Uniform Sewer ⁹	\$16,986,117	\$18,692,599	\$20,840,709	\$22,087,719	\$23,436,240
BF/FH/TC Water ¹⁰	\$ 1,879,444	\$ 2,116,038	\$ 2,510,770	\$ 2,661,120	\$ 2,773,136
BF/FH/TC Sewer ¹¹	\$ 2,643,518	\$ 3,042,317	\$ 3,169,302	\$ 3,442,492	\$ 3,562,955
Total	\$43,785,784	\$47,757,036	\$52,592,359	\$55,379,572	\$58,123,195

4 **Q. Describe how the Public Staff determined the pro forma**
 5 **revenues it recommends.**

6 A. The Public Staff's pro forma revenues were calculated using the
 7 Public Staff's recommended billing determinants and customer
 8 growth factors for the WSIP years, the present rates approved in the
 9 Company's most recent rate case, Sub 384, and CWSNC's
 10 proposed rates. As stated previously, the recommended billing
 11 determinants and customer growth factor determination are

⁷ Base Case is based on the historical test year treated as a traditional rate case.

⁸ See Darden Exhibit No. 5.

⁹ See Darden Exhibit No. 6.

¹⁰ See Darden Exhibit No. 7.

¹¹ See Darden Exhibit No. 8.

1 described in Public Staff witness Darden's testimony on pages 5
2 through 8 and 12 through 16.

3 **Q. Why are the Public Staff's recommended pro forma revenues**
4 **more appropriate than the Company's?**

5 A. The Public Staff's recommended pro forma revenues are more
6 appropriate because the billing determinants are updated through
7 August 31, 2022, and include corrections based on Company
8 information provided in discovery, and the customer growth
9 projections are determined using a compound interest rate with the
10 correct time frame projections.

11 **D. Base Rates**

12 **Q. What base rates did the Company propose for each Rate Year**
13 **by rate base division?**

14 A. The Company's proposed base rates are shown in the updated
15 Schedule E provided with the Company's Update.

16 **Q. Does the Public Staff have any concerns with the Company's**
17 **proposed base rates?**

18 A. The Public Staff disagrees with the Company's proposed rate design
19 and the purchased water rates for the City of Hendersonville and City
20 of Winston-Salem. The Public Staff's proposed rate design is
21 described in Public Staff witness Darden's testimony on pages 19
22 through 26. The proposed correction to the purchased water rates

1 for the City of Hendersonville and City of Winston-Salem is described
2 in Public Staff Witness Darden's testimony on pages 18 and 19.

3 **Q. What base rates does the Public Staff recommend?**

4 A. The Public Staff's recommended base rates are shown on the
5 referenced exhibits for Uniform Water,¹² Uniform Sewer,¹³ BF/FH/TC
6 water,¹⁴ and BF/FH/TC sewer.¹⁵ The Base Case is based on the
7 historical test year treated as a traditional rate case. The Base Case
8 revenue requirements were calculated with the Public Staff
9 recommended 9.45% ROE. The Rate Years 1 through 3 revenue
10 requirements were calculated with the Public Staff recommended
11 9.25% ROE assuming the Commission approves a modified WSIP.

12 **Q. Describe how the Public Staff determined the base rates it**
13 **recommends.**

14 A. The Public Staff's recommended base rates were determined by
15 incorporating the recommended revenue requirement determined by
16 the Public Staff Accounting Division and applying the Public Staff's
17 proposed rate design, as described in Public Staff witness Darden's
18 testimony on pages 19 through 26.

¹² See Darden Exhibit No. 12.

¹³ See Darden Exhibit No. 13.

¹⁴ See Darden Exhibit No. 14.

¹⁵ See Darden Exhibit No. 15.

1 **Q. Why are the Public Staff's recommended base rates more**
2 **appropriate than the Company's?**

3 A. The Public Staff's recommended base rates are more appropriate
4 because the rate design provides additional benefits to customers,
5 the billing determinants have been updated and corrected, the
6 customer growth factors have been properly projected, and the
7 revenue requirement has been audited by the Public Staff. These
8 reasons are further detailed in Public Staff witness Darden's
9 testimony.

10 **E. Percent Increase of the Service Revenues**
11 **During the WSIP**

12 **Q. Did the Company calculate the percent increase of the service**
13 **revenues proposed in its Application?**

14 A. Yes, the Company's calculations are shown in the table on page 11
15 of the Company's Application.

16 **Q. Does the Public Staff have any concerns with the Company's**
17 **calculations?**

18 A. The Company did not provide an updated version of the percent
19 increase of service revenues for each rate division in its Update. The
20 Public Staff calculated the updated percent increase of service
21 revenue by rate entity based on the updated Schedule B.

1 **Q. Did the Public Staff calculate the percent increase of the service**
2 **revenue requirement it recommends?**

3 A. Yes, the Public Staff completed these calculations. The results are
4 shown in the table below.

	Base Case ¹⁶	Rate Year 1 ¹⁷	Rate Year 2	Rate Year 3
Total	\$1,973,643 (4.51%)	\$4,738,245 (10.82%)	\$1,817,585 (3.75%)	\$1,505,163 (2.99%)
Uniform Water	\$ 514,069 (2.31%)	\$1,591,246 (7.14%)	\$1,102,271 (4.62%)	\$ 297,275 (1.19%)
Uniform Sewer	\$1,319,564 (7.77%)	\$2,589,489 (15.24%)	\$ 461,290 (2.36%)	\$1,001,845 (5.00%)
BF/FH/TC Water	\$ 105,670 (5.62%)	\$ 385,112 (20.49%)	\$ 113,228 (5.00%)	\$ 58,208 (2.45%)
BF/FH/TC Sewer	\$ 34,340 (1.30%)	\$ 172,398 (6.52%)	\$ 140,796 (5.00%)	\$ 147,835 (5.00%)

5 **F. Magnitude of Rate Adjustments**

6 **Q. Do the rate adjustments for Years 2 and 3 of the Company's**
7 **proposed WSIP fall below the 5% cap set forth in N.C.G.S. § 62-**
8 **133.1B(c)?**

¹⁶ The Base Case is based on the historical test year treated as a traditional rate case. The Base Case revenues were calculated with the Public Staff recommended 9.45% ROE.

¹⁷ The Rate Years 1 through 3 revenue requirements were calculated with the Public Staff recommended 9.25% ROE assuming the Commission approves a modified WSIP.

1 A. No, the Company's updated proposed rate adjustments for Rate
2 Years 2 and 3 of the WSIP are above the 5% cap set forth in
3 N.C.G.S. § 62-133.1B(c).

4 N.C.G.S. § 62-133.1B, which established the WSIP (WSIP Statute),
5 does not specify whether the earnings calculation for the Rate Years
6 or the 5% revenue cap for Rate Years 2 and 3 applies to each rate
7 division or total company. If it applies to the rate division, one rate
8 division could be underearning while another is overearning.
9 Pursuant to N.C.G.S. §62-133.1B (g)(2) and Commission Rule R1-
10 17A (b)(4) and (e), CWSNC may petition for a general rate case
11 when it earns below its authorized return. However, neither the WSIP
12 Statute nor Commission Rules specify whether the word "utility"
13 refers to either a rate division or a company. CWSNC has four rate
14 divisions: Uniform Water, Uniform Sewer, BF/FH/TC Water and
15 BF/FH/TC Sewer. The Public Staff construes the language of the bill
16 to refer to rate divisions, which effectuates the consumer protections
17 limiting the size of rate increases in subsequent years.

18 If only one rate division falls below the low-end range of the band
19 established by the Commission, then the utility (the Company) can
20 file a general rate case for that rate division. Treating the rate
21 divisions separately for earnings purposes ensures the Company
22 should not shield a significant cost increase in one rate division by
23 netting it against the costs of another rate division. Such cost shifting

1 would run contrary to the intent and spirit of the WSIP Statute.
2 Customers across all rate divisions should receive the benefit of the
3 5% rate cap in Years 2 and 3. Likewise, a utility should not bootstrap
4 a general rate increase across all rate divisions simply because the
5 earnings in one rate division falls below the earnings band.

6 **Q. Do the rate adjustments for Years 2 and 3 of the Public Staff's**
7 **recommended WSIP fall below the 5% cap set forth in N.C. G.S.**
8 **§ 62-133.1B(c)?**

9 A. Yes, the Public Staff's recommended rate adjustments for Rate
10 Years 2 and 3 fall below the 5% cap set forth in N.C.G.S. § 62-
11 133.1B(c).

12 **G. Cost of Service Adjustments**

13 **Q. Please explain how the Public Staff calculated the revenue**
14 **requirements for WSIP Rate Years 1, 2, and 3.**

15 A. The Public Staff calculated the revenue requirements for the WSIP
16 Rate Years utilizing the same methodology used to calculate the
17 historical test year revenue requirement, taking into consideration
18 changes in the cost of capital, rate base, revenues, and expenses,
19 as compared to the Base Year to determine the appropriate revenue
20 requirements needed to provide reliable service to ratepayers. Since
21 the WSIP Rate Years require all parts of the revenue requirement to
22 be estimated for the three forward years, we applied inflation and/or

1 growth escalators to various revenue and expense accounts to
2 estimate revenues and expenses for each WSIP Rate Year. Finally,
3 for any rate division that exceeded the 5% cap for Rate Years 2 or 3,
4 the Public Staff made an adjustment to the revenue requirements for
5 that rate division to reduce the requirement to not exceed the 5%
6 cap.

7 **Q. How did the Public Staff determine the inflation and growth**
8 **escalators to apply to the WSIP Rate Years?**

9 A. The Public Staff recommends a 3.4% expense inflation factor (EIF)
10 be used for the expense categories that do not utilize another specific
11 EIF for Rate Year 1. The 3.4% EIF is the 3-year average of actual
12 CPI-U (All Items Less Food and Energy) (hereinafter, CPI-U) from
13 September 2019 to August 2022. The Public Staff does not adjust
14 the Company's EIF of 2.40% for Rate Year 2 and Rate Year 3 as
15 shown in Schedule 29.

16 As discussed in Public Staff witness Lindsay Darden's testimony, the
17 Public Staff recommends an expense growth factor for the Base
18 Case and WSIP Years 1, 2, and 3 for each rate entity to be applied
19 to the short-term variable expenses. The short-term variable
20 expense growth factors shown on Darden Exhibit 11 were applied to
21 the following water and sewer short-term variable expenses: sludge
22 hauling, purchased power, and chemicals. To calculate the expense

1 growth rate, Witness Darden compared the EOP customer count to
 2 the updated test year customer count, and then compared each
 3 WSIP Year EOP count to the prior year (e.g., the projected WSIP
 4 Rate Year 1 EOP to the updated test year EOP).

5 **Q. Briefly discuss the Company's approach to forecasting future**
 6 **expenses.**

7 A. As discussed in Company witness Drennan's direct testimony,
 8 CWSNC made three adjustments to calculate its WSIP expenses:
 9 inflation factor adjustments, growth factor adjustments, and driver-
 10 based forecast adjustments. These factors were applied to the
 11 Company's proposed Base Year expense amounts to arrive at the
 12 Company's proposed revenue requirements for each of the three
 13 WSIP Rate Years. The Company calculated its EIF by blending
 14 actual monthly CPI All Items (hereinafter, CPI-A) readings for 2022
 15 and CPI-A forecast data for 2023 through 2026 obtained from *Blue*
 16 *Chip Financial Forecast*. CWSNC's proposed EIFs for each WSIP
 17 Rate Year included in the Company's initial Application are shown in
 18 the table below.

WSIP Rate Year	Proposed EIF
Rate Year 1	8.82%
Rate Year 2	2.4%
Rate Year 3	2.4%

1 In its update filing, CWSNC increased its EIF for Rate Year 1 from
2 8.82% to 9.3%. CWSNC did not update its proposed EIF for Rate
3 Years 2 or 3. CWSNC determined its updated EIF for Rate Year 1 by
4 calculating a 12-month bridge period average inflation rate and
5 compounding it by the 12-month forecasted average inflation rate of
6 3%. The 12-month bridge period average inflation rate the Company
7 used is based on actual monthly CPI-A readings from April 2022 to
8 July 2022 and forecasted CPI-A readings for the remaining eight
9 months. The Company's update also proposed a new pro forma EIF
10 of 7.6% for Rate Year 1 and applied it to the following expense
11 categories: purchased power, maintenance testing, chemicals,
12 customer service printing (credit card payment processing fee),
13 pension and other benefits, rent, insurance except property and
14 vehicle insurance, and corporate and regional allocated expenses.
15 The Company determined this EIF by compounding a seven-month
16 average CPI forecast (from September 2022 to March 2023) by the
17 same 12-month Rate Year 1 forecasted average inflation rate of 3%.

18 **Q. Why did the Public Staff utilize a different EIF for Rate Year 1?**

19 A. The Public Staff believes the Company's EIFs for Rate Year 1 are
20 overstated. The 3-year historical average CPI-U ended on August
21 2022 is 3.4%. The Company's forecasted 12-month average CPI-A
22 for Rate Year 1 is 3%, which is 6.3% less than the Company's
23 proposed EIF of 9.3% and 4.2% less than the Company's proposed

1 pro forma EIF of 7.6%. The difference above upends the
2 reasonableness and prudence of both of the Company's proposed
3 Rate Year 1 CPI-based IEFs.

4 Furthermore, the Public Staff disagrees with both uses of the bridge
5 period inflation. The level of expenses for the Base Year has already
6 been adjusted to account for the period between the Base Year and
7 Rate Year 1; therefore, compounding Base Year expenses by an EIF
8 and then using those compounded expenses to determine the Rate
9 Year 1 EIF is double counting. This double counting creates an
10 overstated EIF. Should the Commission approve the general rate
11 case revenue increase without a WSIP, Base Year (or the first)
12 annual revenue period has included the months in the bridge period.
13 Compounding Base Year expenses with average inflation to
14 calculate Rate Year 1 EIF overstates the EIF. Finally, the Company
15 did not make any adjustments to its Rate Year 1 expenses or EIFs
16 to address any impacts of the Inflation Reduction Act.

17 **Q. Did the Public Staff utilize the same growth factors for the WSIP**
18 **Rate Years as the Company?**

19 A. CWSNC calculated and applied the following growth factors to its
20 rate divisions:

	Water			Sewer		
	Rate Year 1	Rate Year 2	Rate Year 3	Rate Year 1	Rate Year 2	Rate Year 3
Uniform	0.46%	0.92%	0.92%	0.09%	0.18%	0.18%
BFHTC	0.42%	0.84%	0.84%	0.73%	1.46%	1.46%

1 The Company compounded the EIFs with these growth factors to
2 obtain its compounded EIFs and then applied the compounded EIFs
3 to the following: purchased power, maintenance testing, chemicals,
4 customer service printing (credit card processing), pension and
5 benefits, rent, insurance (except the property and vehicle insurance),
6 corporate cost allocation and regional cost allocation.

7 Except for items that relate to customer growth and consumption that
8 the Public Staff addresses specifically in this testimony, we do not
9 agree that other expense items should be compounded by customer
10 growth because they do not increase proportionately to internal
11 customer growth. For example, customer growth does not affect how
12 many employees participate in a 401k or health insurance if there
13 are no additional positions filled by the Company in the rate year.
14 Therefore, the Public Staff recommends no growth factors for these
15 items.

16 **Q. Did the Public Staff accept any of the Company's WSIP-related**
17 **revenue requirement adjustments?**

1 A. Yes. The Public Staff accepted the overall inflation and/or growth
2 rates the Company used to determine the appropriate level of
3 expense in the following expense categories for Rate Year 1:

4 (a) Salary and Wages and associated Payroll Taxes;

5 (b) Purchase Water and Sewer; and

6 (c) Excess Deferred Income Tax.

7 The Public Staff's acceptance of those adjustments does not, and
8 should not be construed to, mean the Public Staff agrees with the
9 way in which the Company determined those expense level.

10 The Public Staff also accepts the inflation rates the Company used
11 for Rate Years 2 and 3. As with the adjustments made to Rate Year
12 1, the Public Staff's acceptance of those adjustments does not, and
13 should not be construed to, mean the Public Staff agrees with the
14 way in which the Company determined those expense level.

15 **Q. What adjustments does the Public Staff recommend to the cost**
16 **of service for the WSIP Rate Years?**

17 A. The Public Staff is recommending adjustments to the following
18 areas:

19 (a) Cost of capital

20 (b) Plant in Service

21 (c) Accumulated Depreciation

22 (d) Miscellaneous Revenue

- 1 (e) Uncollectibles
- 2 (f) Pensions and Other Benefits
- 3 (g) Maintenance and Repairs
- 4 (h) Office Supplies and Other Office Expense
- 5 (i) Regulatory Commission Expense
- 6 (j) Rent
- 7 (k) Insurance Expense
- 8 (l) Outside Services
- 9 (m) Office Utility
- 10 (n) Miscellaneous Expenses
- 11 (o) Depreciation Expense
- 12 (p) Property Tax
- 13 (q) Regulatory fee.

14 **Q. Please describe the Public Staff's recommended adjustments.**

15 A. As previously stated, all rate base, revenues, and expenses included
16 in Public Staff WSIP Exhibit 1 start with the Base Year amounts
17 included in Brown and Feasel Exhibit I to the Joint Testimony of
18 Darrel Brown and Lynn Feasel, which is being filed
19 contemporaneously in this docket. Our additional adjustments are
20 described below.

21 **Plant in Service**

22 **Q. Please briefly describe the plant in service additions proposed**
23 **by the Company in the WSIP.**

24 A. In Appendix 11, Schedule J, of its Application filed on July 1, 2022,
25 the Company describes its Capital Improvement Plan (CIP)

1 consisting of its CIP Program and General Ledger (GL) Spend
 2 Program, totaling an estimated \$89.9 million over the Rate Filing
 3 Period. The CIP Program includes 119 projects totaling an estimated
 4 \$66.9 million and is summarized in the table below.

	Base Case	Rate Year 1	Rate Year 2	Rate Year 3
Total	\$ 4,701,423	\$33,736,959	\$ 9,535,471	\$18,902,654
Uniform Water	\$ 2,159,947	\$ 8,934,227	\$ 4,409,839	\$ 2,459,553
Uniform Sewer	\$ 1,806,860	\$20,869,418	\$ 3,717,700	\$15,817,736
BF/FH/TC Water	\$ 140,037	\$ 2,126,455	\$ 676,007	\$ 189,552
BF/FH/TC Sewer	\$ 598,907	\$ 1,806,860	\$ 7,31,855	\$ 435,813

5 The Company's updated GL Spend Program, primarily based on a
 6 40-month average of actual spend ending April 30, 2022, projects
 7 annual plant additions of \$7,033,409 and associated retirements of
 8 \$2,008,617.

9 In its Update filed on September 19, 2022, the Company provided
 10 Schedule 2 detailing the updated CIP Program as of August 31, 2022
 11 (Updated CIP Program). The Updated CIP Program, includes 128
 12 projects totaling an estimated \$87.8 million and is summarized in the
 13 table below.

	Base Case	Rate Year 1	Rate Year 2	Rate Year 3
Total	\$ 4,097,642	\$37,102,360	\$22,005,505	\$24,624,670
Uniform Water	\$ 1,938,734	\$12,839,388	\$ 8,183,066	\$ 2,629,887
Uniform Sewer	\$ 2,066,946	\$20,192,328	\$ 5,151,991	\$21,369,418
BF/FH/TC Water	\$ 91,962	\$ 2,857,634	\$ 1,227,147	\$ 189,552
BF/FH/TC Sewer	\$ -	\$ 1,213,011	\$ 7,443,302	\$ 435,813

1 The Company's GL Spend Program was not updated.

2 **Q. Has the Public Staff adjusted the utility plant in service for the**
3 **WSIP Rate Years?**

4 A. Yes. As illustrated by the Company's proposed \$20.9 million, or 31%,
5 increase in the costs of the CIP Program in a mere 80 days from its
6 Application filed on July 1, 2022, to the Update filed on September
7 19, 2022, forecasting and estimating capital investment projects over
8 three plus years has a significant degree of uncertainty. That
9 uncertainty and the Company's attempts to mitigate that risk with
10 overly burdensome cost contingencies, which may or may not be
11 incurred, to be prospectively recovered in rates from customers is
12 untenable. For the CIP Program projects estimated to cost in excess
13 of \$500,000, 22 of the 32 projects had clearly identifiable cost
14 contingencies totaling over \$7.1 million, included in the cost
15 estimates, that ranged from 2.53% to 29.10% and averaged nearly
16 12%. This is especially high when over half the projects are
17 estimated to be in service during the Base Case and Rate Year 1

1 periods and the Company progressively updates its project plan
2 document and cost estimate. N.C.G.S. § 62-133.1B.(a) “authorizes
3 annual rate changes for a three-year period based on reasonably
4 known and measurable capital investments. . .” The customers
5 should not bear the entirety of prospective cost contingencies in rates
6 to mitigate the utility’s risk of unknown capital investments. If
7 conditions do not warrant expenditure of the contingency amounts,
8 the savings will not flow back to customers during the duration of the
9 WSIP.

10 To address the unknown nature of future capital cost estimates and
11 reduce the unfair cost burden of contingencies to customers, the
12 Public Staff recommends a 10% reduction to the estimated costs at
13 completion and associated retirement amounts detailed in the
14 updated CIP Program provided by the Company in response to
15 Public Staff Data Request No. 4. In addition, the “NC - 2021 - The
16 Point - Interconnect with Town of Mooresville” project, estimated to
17 be in service in March 2023 and cost over \$3.5 million, did not have
18 an associated retirement amount proposed by the Company. In
19 response to Public Staff Data Response No. 60, the Company
20 provided a Preliminary Engineering Report Discharge Alternatives
21 Analysis dated September 29, 2017, which recommends the project
22 to upsize and replace the existing 8-inch water main interconnect to
23 a 12-inch main and estimated the “construction and non-construction

1 costs” to be \$826,115 as well as a 15% contingency in the amount
2 of \$123,900. According to planning documents, the project budget in
3 the 2020-2021 Cap Ex Plan was forecasted at \$2.35 million. This
4 cost escalation due, at least partially, to timing delays only intensifies
5 the Public Staff’s concerns about the reasonableness of CWSNC’s
6 estimated capital costs. All of the projects estimated to be complete
7 and in service after August of 2023 will be subject to reasonableness
8 and prudence review as part of the Company’s next general rate
9 case.¹⁸ The existing 8-inch water main interconnection with the Town
10 of Mooresville was placed in service in 2013 and the \$471,683 capital
11 cost was incorporated into rates as part of the Sub 336 rate case.
12 Therefore, the Public Staff calculated and incorporated a retirement
13 estimate of \$424,515.

14 Another example is the Carolina Trace project 2020175 that was
15 completed in December 2021 at a cost of \$637,323. The cost
16 estimate dated October 12, 2020, was for \$635,413 plus a cost
17 contingency of \$274,311, or 43%. While this project was added to
18 the CIP Program as part of the Update and the prior estimate was

¹⁸ “The Commission finds that while an approved WSIP will allow cost recovery resulting in limited or capped rate increases for years two and three of the WSIP, the utility’s investment decisions remain subject to the reasonable and prudent standard set forth in N.C.G.S. § 62-133. That is, the Commission continues to have authority in the utility’s next general rate case proceeding to disallow, prospectively, costs related to capital investments included in the WSIP that are subsequently determined to be unreasonable or imprudent.” Order Adopting Commission Rule R1-17A, at page 12, issued on January 7, 2022, in Docket NO. W-100, Sub 63.

1 not included in the WSIP, it illustrates the use of excessive
2 contingency estimates approximately a year out from completion that
3 would have otherwise been collected from customers prospectively.

4 The Public Staff's recommendation to reduce the estimated costs at
5 completion by 10% is a negative adjustment to plant in service in the
6 amount of \$8,783,018 and a positive adjustment to associated
7 retirements in the amount of \$738,038, resulting in a net decrease of
8 \$8,044,980.

9 The Company's updated GL Spend Program includes significant
10 spending on plant assets such as service lines and meters being
11 prioritized, both in number and scale of projects, in the CIP Program,
12 therefore a reduction in recurring spend on those plant assets would
13 be reasonably expected. In addition, the Company includes recurring
14 spend on plant assets predominantly associated with new growth
15 that would be offset by CIAC such as transmission and distribution
16 mains, sewer gravity mains, manholes, service lines, service to
17 customers, and meters and meter installations. The Company does
18 not include projections of CIAC additions. Furthermore, the
19 Company uses a 40-month average that includes only the first four
20 months of 2022 potentially skewing the monthly average. The Public
21 Staff recommends a three-year average of 2019, 2020, and 2021
22 data with the removal of annualized spend and associated
23 retirements of sewer gravity mains, manholes, service to customers,

1 service lines, meters, meter installations, and transmission and
2 distribution mains, resulting in annual plant additions of \$3,803,080
3 and associated retirements of \$1,657,830.

4 The Public Staff's recommended plant in service additions by object
5 account, rate division, and WSIP year are summarized in Public Staff
6 WSIP Exhibit 3.

7 **Accumulated Depreciation**

8 **Q. Has the Public Staff adjusted accumulated depreciation for the**
9 **WSIP Rate Years?**

10 A. Yes, we incorporated the Public Staff's recommended Base Year
11 accumulated depreciation as of August 31, 2022, and updated it
12 through March 31, 2023, to reflect the total accumulated depreciation
13 for Base Year plant in service as of April 1, 2023, the beginning of
14 Rate Year 1. We then adjusted the accumulated depreciation to
15 reflect a full year of depreciation expense based on the Public Staff's
16 recommended Rate Year 1 plant in service. We applied the same
17 methodology to calculate accumulated depreciation for Rate Years 2
18 and 3.

19 **Miscellaneous Revenues**

20 **Q. Please explain the Public Staff's adjustment to miscellaneous**
21 **revenues.**

1 A. As part of its calculation of miscellaneous revenues, the Company
2 calculated 3-year average forfeited discount rates using data from
3 2017, 2018, and 2019 for each rate division, and applied those
4 forfeited discount rates to the Company's proposed service revenue
5 to calculate the forfeited discounts revenue. The Public Staff
6 calculated 5-year average forfeited discount rates using data from
7 2017 through 2021 for each rate division and applied the forfeited
8 discount rates to the Public Staff's recommended service revenue by
9 rate division for each Rate Year. The 5-year period matches the
10 period the Public Staff is utilizing for calculating uncollectibles.
11 Additionally, we have rolled forward the gain from sale of utility
12 property from the Base Year consistent with past practices in
13 previous rate cases.

14

Uncollectibles

15 **Q. Please explain the Public Staff's adjustment to uncollectibles.**

16 A. The Company utilized total uncollectibles divided by the total service
17 revenues from the Company's books in the test year to calculate a
18 composite uncollectible percentage for both Uniform and BF/FH/TC
19 rate divisions to calculate uncollectibles expense. The Public Staff
20 calculated uncollectible percentages for each individual rate division
21 (CWSNC Water, CWSNC Sewer, BF/FH/TC Water, and BF/FH
22 Sewer) based on a 5-year historical average of each respective
23 division's per book levels of uncollectibles and service revenues,

1 which is consistent with the Public Staff's recommended Base Case
2 calculation. We applied the uncollectible percentages to the service
3 revenue the Public Staff recommended for Rate Years 1, 2, and 3.
4 Since each rate division has its own sets of rates, the Public Staff
5 believes it is important to delineate the uncollectibles by rate division
6 instead of utilizing a composite rate.

7 **Pension and Other Benefits**

8 **Q. Please explain how the Public Staff adjusted pension and other**
9 **benefits expense.**

10 A. In its update filing, CWSNC updated its proposal to use a compound
11 proforma EIF of 7.6% for pension and other benefits expense and
12 applied the updated factor to its historical test year pension and other
13 benefits expense to calculate the proposed Rate Year 1 pension and
14 other benefits expense. Since many of the items included in
15 pensions and other benefits expense are salary-related (such as the
16 401k profit sharing, 401k matching, and pensions), the Public Staff
17 recommends using the same 3% increase proposed for salaries for
18 Rate Years 1 through 3. Additionally, the cost changes for other
19 benefits are not sensitive to increases or decreases in inflation; they
20 change based on the Company's policies and actual expense
21 incurred.

1 **Maintenance and Repair**

2 **Q. Please explain the Public Staff's adjustment to maintenance**
3 **and repair expense.**

4 A. For the deferred maintenance expense portion, the Public Staff
5 continued to use the annualized level of depreciation expense for
6 each eligible deferred maintenance project until each project is fully
7 depreciated. For sludge hauling, a detailed description of the Public
8 Staff's adjustment to the Base Case level of expense is on pages 5
9 through 8 of the Direct Testimony of Public Staff witness D. Michael
10 Franklin, which is being filed contemporaneously with this testimony.

11 **Office Supplies and Other Office Expense**

12 **Q. Please explain the Public Staff's adjustment to office supplies**
13 **and other office expense.**

14 A. The Public Staff calculated a three-year historical CPI-U EIF of 3.4%
15 and, then applied that EIF to the Base Year amount to derive the
16 Rate Year 1 estimated expense. As previously stated, the Public
17 Staff accepts the EIFs proposed by the Company for Rate Years 2
18 and 3.

19 **Regulatory Commission Expense**

20 **Q. Please explain how the Public Staff calculated regulatory**
21 **commission expense.**

1 A. The Public Staff utilized the annual amortization of regulatory
2 commission expense proposed by Public Staff witnesses Brown and
3 Feasel, which amortized the regulatory commission expense from
4 CWSNC's last general rate case over the remaining amortization
5 period approved by the Commission, and regulatory commission
6 expense in the present case over a 5-year period.

7 **Rent**

8 **Q. Please explain the Public Staff's adjustments to rent expense.**

9 A. The Public Staff began by adjusting rent for the actual signed rental
10 agreements that will be in place during the WSIP period. Next, for
11 rentals that do not have signed agreements for the WSIP period, we
12 applied the Public Staff recommended EIF of 3.4% to the amounts
13 included in the Base Year to determine Rate Year 1 rent expense.
14 As previously stated, the Public Staff accepts the Company's
15 proposed EIF for Rate Years 2 and 3 that were utilized in calculating
16 the rent expense for both years.

17 **Insurance Expense**

18 **Q. How did the Public Staff adjust insurance expense?**

19 A. The Company utilized the compounded proforma EIF of 7.6% to
20 calculate insurance expense (except property and vehicle insurance)
21 for Rate Year 1. The Public Staff applied the Public Staff's EIF of
22 3.4% to the Base Year insurance premium recommended by Public

1 Staff witnesses Brown and Feasel and then allocated these resulting
2 expenses based on the same allocation factors used in the Base
3 Year to calculate the total insurance expense for each rate division.
4 For Rate Years 2 and 3, we applied the 2.4% EIF proposed by the
5 Company to the corresponding Rate Year insurance premium for
6 both years.

7 **Outside Service**

8 **Q. How did the Public Staff adjust outside services expense?**

9 A. CWSNC utilized the compounded EIF for this expense. The Public
10 Staff applied the Public Staff's recommended 3.4% EIF for Rate Year
11 1 to the Public Staff Base Year amounts to calculate the Rate Year
12 1 expense level for this expense. For Rate Years 2 and 3, we applied
13 the 2.4% EIF proposed by the Company to the corresponding Rate
14 Year outside services expense for Rate Years 2 and 3.

15 **Office Utility**

16 **Q. Please explain the Public Staff's adjustment to office utility
17 expense.**

18 A. CWSNC used the compounded EIF for this expense. The Public
19 Staff applied the Public Staff's recommended EIF for Rate Year 1 to
20 the Public Staff Base Year amounts to calculate the Rate Year 1
21 expense level for this expense. For Rate Years 2 and 3, we applied

1 the 2.4% EIF proposed by the Company to the corresponding Rate
2 Year office utility expense for Rate Years 2 and 3.

3 **Miscellaneous Expenses**

4 **Q. Please explain the Public Staff's adjustment to miscellaneous**
5 **expenses.**

6 A. CWSNC used various EIFs for Rate Year 1 for miscellaneous
7 expenses. The Public Staff applied the Public Staff's recommended
8 EIF of 3.4% for Rate Year 1 for all expense items included in the
9 miscellaneous expenses. The recommended EIF was applied to the
10 Public Staff Base Year amounts to calculate the Rate Year 1
11 expense. The Public Staff utilized the Rate Year 2 and 3 EIFs
12 proposed by the Company.

13 **Depreciation Expense**

14 **Q. How did you adjust depreciation expense?**

15 A. We have adjusted depreciation expense to reflect an ongoing,
16 annual level of depreciation expense based on the Public Staff's
17 adjusted level of plant in service including estimated plant in service
18 and the depreciation lives for each plant account.

19 **Property Tax**

20 **Q. Please explain your adjustment to property tax.**

1 A. The Public Staff adjusted property taxes for each WSIP Rate Year to
2 match the estimated level of growth of plant in service.

3 **Regulatory Fee**

4 **Q. What adjustment have you made to regulatory fee?**

5 A. The Company used the previous Commission approved regulatory
6 fee of 0.13% to calculate regulatory fee. The Public Staff used the
7 current statutory rate of 0.14% for each WSIP Rate Year.

8 **H. Performance-based Metrics (PBMs)**

9 **Q. Briefly describe the Company's proposed PBMs.**

10 A. The Company's proposed PBMs are discussed in the Direct
11 Testimony of Company witness Denton and attached exhibit (Exhibit
12 DHD-1). The Company did not propose any benchmarks, targets,
13 penalties, or incentives.

14 **Q. Does the Public Staff have any concerns with the Company's
15 proposed PBMs?**

16 A. Yes, in the Public Staff's view, the metrics the Company proposed
17 are a start, but significant improvement is needed. While the
18 Company has satisfied the minimum requirements required by
19 applicable legal authority, the performance metrics proposed by the
20 Company provide no insight into the Company's ability to (1) control
21 costs without sacrificing service quality; (2) effectively and efficiently

1 use revenues it receives; (3) effectively and efficiently use its assets;
2 and (4) finish capital projects on time and on budget.

3 The Public Staff is also concerned about the absence of benchmarks
4 and targets to measure the Company's performance. Benchmarks
5 and targets add context to the data the metrics produce. Data that
6 exists in a vacuum is not a meaningful tool.

7 The concerns discussed above are exacerbated by the Company's
8 response to Public Staff No. 65 (attached as Public Staff WSIP
9 Exhibit 4) that repeatedly states that certain information is not readily
10 available, not readily presentable, or not collected at the Company
11 level (if at all). The concerns listed above raise a number of questions
12 for the Public Staff, which include, but are not limited to, the
13 questions listed below.

- 14 1. Whether the Company or its parent entity can effectively
15 measure the Company's performance;
- 16 2. How the Company measures progress and identifies issues
17 that need attention; and
- 18 3. Whether the Commission can meaningfully assess the
19 Company's performance as part of administering the
20 requested WSIP.

21 **Q. Does the Public Staff have any recommendations with respect**
22 **to PBMs?**

1 A. Yes, the Public Staff recommends (1) modifications to the
2 Company's proposed performance metrics; (2) additional PBMs; and
3 (3) that the Commission require the Company to collect the data
4 needed to measure achievement of certain performance-based
5 indicators through the use of appropriate benchmarks.

6 Benchmarks are crucial to the Commission's ability to monitor the
7 Company's performance and determine, for itself, whether the
8 Company is satisfying a threshold requirement for a WSIP: the
9 provision of reliable, safe, and compliant water and wastewater
10 services. The Company should have an idea of appropriate
11 benchmarks to test the reasonableness of its performance in the
12 areas where it has proposed metrics. N.C.G.S. § 62-133.1B(b) gives
13 the Commission statutory authority to impose the requirements the
14 Public Staff recommends as part of the Commission's authority to
15 "impose any conditions necessary to ensure that . . . the plan and
16 associated rates are just, reasonable, and in the public interest, and
17 the plan reasonably ensures the provision of safe, reliable, and cost-
18 effective water service to customers." Performance-based rate-
19 making without meaningful benchmarks to evaluate the utility's
20 performance defeats the purpose of the performance based part of
21 a WSIP.

22 **Q. Why are significant improvements to the Company's data**
23 **collection and analysis function needed immediately?**

1 A. The Company should be required to develop and implement a plan
2 to improve data collection and analysis at the Company-level that
3 meets Commission-established requirements within 180 days of
4 Commission-approval of a WSIP. Within 30 days of Commission
5 approval, the Company should be required to provide the Public Staff
6 and the Commission a detailed description of the ways in which it will
7 improve its data collection and analysis along with a timeline for
8 completion that includes a schedule of deliverables that can be easily
9 verified. To ensure timely completion, the Company should be
10 required to report on its progress every 30 days thereafter. The
11 timeline should be strictly enforced.

12 Near-term, significant improvements to the Company's data
13 collection and analysis function is crucial to the Commission's ability
14 to meaningfully assess whether an approved WSIP is in the public
15 interest. The weakness of the Company's data collection and
16 analysis function would perpetually hinder the Commission's ability
17 to evaluate future WSIP applications by allowing the Company to
18 avoid performance standards and accountability due to a lack of
19 requisite data.

20 **Q. Does the Public Staff recommend any additional metrics?**

21 A. Yes, the Public Staff recommends a series of metrics (listed in Public
22 Staff WSIP Exhibit 5) because those metrics will form the basis for a
23 balanced scorecard that measures the Company's performance in

1 multiple areas on multiple plains. The metrics included in Public Staff
2 WSIP Exhibit 5 are appropriate because they capture other aspects
3 of the Company's service reliability, operational compliance,
4 customer service, and success in creating a safe workplace and, in
5 doing so, provide a well-rounded picture of the Company's
6 operations. The metrics recommended and modified by the Public
7 Staff add a level of granularity that is not present within the
8 Company's proposed metrics and can be interpreted together to
9 assess whether the Company is excelling in one area at the expense
10 of poor performance in another area. By way of example, a
11 company's ability to complete capital projects on time and within the
12 budget allowed are both extremely important and both should be
13 measured so the outcomes can be evaluated together. Management
14 can look at both aspects of capital expenditure planning and
15 management to ensure that the metrics are moving together, rather
16 than apart. The Public Staff's recommended metrics will create a
17 clearer picture of how the Company is performing as a whole and
18 may also provide valuable insights into what is driving the Company's
19 performance.

20 The current lack of historic data to calculate some of the Public
21 Staff's recommended metrics is not a basis for failing to adopt them.
22 If reporting on those metrics has not been performed or cannot be
23 achieved with the Company's existing system, then development

1 and implementation of more robust data collection becomes
2 necessary, within reason. If the implementation of more robust data
3 collection within a reasonable timeframe cannot be achieved, denial
4 of the WSIP on this additional ground may be warranted.

5 **Q. Does the Public Staff recommend the adoption of any incentives**
6 **or penalties related to the Company's proposed metrics?**

7 A. Yes, the Public Staff recommends the adoption of the incentives and
8 penalties discussed below.

9 The Public Staff recommends a discrete set of incentives and
10 penalties for certain metrics that increase or decrease the high-end,
11 but not the low-end, of the Company's approved ROE band when the
12 Company's performance on a metric rises above or falls below the
13 benchmark. The cumulative total decrease cannot exceed 54 basis
14 points and the increase cannot exceed 14 basis points per year.

15 Performance for each metric is reviewed as part of the quarterly
16 reporting process and any necessary ROE adjustments are applied
17 as part of the Company's annual review process. Any adjustments
18 will be applied to the earnings test of the Rate Year subject to current
19 annual review.

20 The recommended incentive and penalty procedure is appropriate
21 because it encourages good business practices to control costs and
22 responsiveness to customers and ensures that corrective action is

1 taken any time the Company's performance deteriorates during the
2 duration of the WSIP.

3 **I. Cost of Capital**

4 **Q. What overall cost of capital does the Public Staff recommend if**
5 **the Commission approves the Company's request for a WSIP?**

6 A. The Public Staff recommends an overall cost of capital of 6.95% as
7 shown in Public Staff WSIP Exhibit 6. This recommendation is based
8 upon the Company's proposed capital structure consisting of 50.00%
9 common equity and 50.00% long-term debt, a debt cost of 4.64%,
10 and a 9.25% return on common equity (ROE).

11 **Q. How does the foregoing recommendation differ from the Public**
12 **Staff's recommended cost of capital if the Commission does not**
13 **approve the Company's request for a WSIP?**

14 A. If the Commission does not approve the Company's request, the
15 Public Staff recommends an overall cost of capital of 7.05%, as
16 shown in Hinton Exhibit 6 filed with the Direct Testimony of Public
17 Staff witness John R. Hinton, which is being filed contemporaneously
18 with this testimony. This recommendation is based upon the
19 Company's proposed capital structure consisting of 50.00% common
20 equity and 50.00% long-term debt, a debt cost of 4.64%, and a
21 9.45% ROE.

1 **Q. Why is there a 20-basis point difference between the Public**
2 **Staff's recommended ROEs?**

3 A. The Public Staff made a 20-basis point downward adjustment to its
4 recommended ROE if the Commission approves the Company's
5 WSIP request because of the WSIP's impact on regulatory lag. The
6 WSIP offers enhanced cost recovery of eligible capital
7 improvements, thereby reducing regulatory lag through incremental
8 and timely rate increases. This mechanism is seen by debt and
9 equity investors as supportive regulation that mitigates business risk
10 and regulatory lag. For example, as shown in Public Staff WSIP
11 Exhibit 7, Moody's bases 50% of its credit evaluation process on the
12 applicable regulatory framework and a utility's ability to recover costs
13 and earn a return. These factors alone count more in Moody's credit
14 evaluation process than a utility's financial metrics. In a similar
15 investment report, Janney's Water Industry Report (included as
16 Public Staff WSIP Exhibit 9) writes that: "[w]hen we evaluate the
17 regulatory climate of a state, we focus on three items: consistency of
18 regulatory treatment, allowed ROE, and the effects to minimize the
19 effects of regulatory lag." The report was written in 2009, but the
20 same investment concerns exist today and are applicable to
21 CWSNC.

22 Moreover, the reduction in regulatory lag also enhances the
23 Company's ability to match expenses with revenues, which in turn

1 should reduce the non-weather-related volatility of earnings.
2 Company witness D'Acsendis agrees that the WSIP will provide for
3 a better matching of revenues and expenses; however, he states that
4 the WSIP will not mitigate the volatility of earnings. Obviously, the
5 variation in water and wastewater usage associated with rainfall and
6 temperature will continue even with the WSIP in place, but it is
7 important to note that the majority of water use is for non-
8 discretionary purposes, such as, drinking, bathing, cleaning, and
9 washing clothes. As such, it is reasonable to expect that the
10 enhanced matching of revenues and expenses with non-
11 discretionary water and wastewater usage will lead to the timely
12 recovery of costs which will reduce the volatility of earnings.

13 **Q. Please explain how Moody's and other credit rating agencies**
14 **view MYRPs.**

15 A. Moody's see MYRPs as a credit positive. Public Staff WSIP Exhibit
16 9 contains a March 24, 2022 Credit Opinion by Moody's Investor
17 Service on Duke Energy Carolinas, LLC. (DEC Opinion) and an
18 August 26, 2021 Credit Opinion on Puget Sound Energy, Inc. (PSE
19 Opinion). The DEC Opinion considers recent legislation allowing
20 MYRPs in NC and the PSE Opinion considers similar MYRP
21 legislation in Washington. Both Opinions note that this new
22 regulatory framework is a positive development toward mitigating
23 regulatory lag, and it provides for greater revenue visibility and

1 transparency. Given Moody's emphasis on monitoring a utility's
2 cash-flow, a mechanism that allows for immediate cost recovery
3 works to directly improve its cash-flow risk metrics and is seen as a
4 credit positive. MYRPs also foster greater revenue visibility and
5 transparency for the utility, its customers, other stakeholders, and
6 regulators. Moody's and other credit rating agencies give enhanced
7 ratemaking mechanisms that lead to consistency and predictability
8 of utility regulation positive weight.

9 **Q. How did the Public Staff access the reasonableness of its**
10 **recommendations?**

11 A. The Public Staff considered the pre-tax interest coverage ratio
12 produced by its recommended cost of capital. Based on the
13 recommended capital structure, cost of debt, and return on equity,
14 the pre-tax interest coverage ratio is approximately 3.6 times, as
15 shown in Public Staff WSIP Exhibit 10. This level of pre-tax interest
16 coverage should allow CWSNC to qualify for a single "A" bond rating.

17 **Q. What ROE band does the Public Staff recommend?**

18 A. The Public Staff recommends a ROE band of 8.75% to 9.75% for all
19 years of the WSIP. The upper and lower limits of the band are
20 equidistant from the recommended ROE of 9.25%.

21 **Q. How does the Public Staff's recommended ROE band compare**
22 **to the Company's proposed ROE band?**

1 A. The Company's proposed ROE band is 9.70% to 11.70%.

2 **Q. Does the Public Staff have any concerns with the proposed ROE**
3 **bands?**

4 A. Yes, the Public Staff is concerned about the breadth of the band for
5 the reasons discussed below. First, a cumulative 200-basis point
6 band is too broad, especially since this is the Company's first WSIP
7 application. The use of a forward-looking test year over a three-year
8 period is a significant departure from past practice and is introducing
9 a dramatic and uncertain era in utility regulation in North Carolina.
10 There is an obvious degree of certainty associated with the use of
11 historical test years where most adjustments to the cost of service
12 are generally designed to capture normal and appropriate operating
13 conditions. However, the transition to a forward-looking cost of
14 service along with a forward-looking rate base adds a degree of
15 uncertainty for regulators, the Company, and customers. The only
16 other time the Commission has relied upon a forward-looking test
17 year occurred when the Federal Communications Commission
18 mandated changes related to Unbundled Network Elements. See
19 Docket No. P-100, Subs 133B and 133D. It is noteworthy that these
20 proceedings were spurred by the Telecommunications Act of 1996
21 and took place at a time when local telephone services were
22 becoming increasingly competitive because of deregulation.

1 Second, the Company's proposed ROE bands provide no benefit to
2 ratepayers because the lower limit of the Company's band is 9.70%,
3 which is 30 basis points above the Commission-approved ROE in
4 the Company's last general rate case. The Company has the ability
5 to earn 230 basis points above its currently authorized ROE before
6 it faces the prospect of making refunds to customers for over-
7 earning. The lower limit of the Company's proposed ROE also fails
8 to provide any meaningful protection against frequent rate case
9 filings because the prohibition on filing a rate case when an approved
10 WSIP is set above the Company's approved ROE in three of its last
11 four rate cases.

12 With the Company's proposed bands, ratepayers bear all the risk of
13 getting it wrong. This is true because ratepayers do not have a
14 mechanism to require the Commission to re-evaluate an approved
15 WSIP. The ratepayers' remedy is a refund of over-earnings. The
16 ability to obtain a refund is meaningless in this situation because the
17 threshold at which refunds are required is so high. To a large extent,
18 the Company controls if, and when, rates approved under a WSIP
19 are revisited because the Company chooses if, and when, it will
20 exercise its ability to file a general rate case for under-earning. The
21 likelihood of the Company acting on this ability is slim if the
22 benchmark for under-earning is set at, or above, the Company's

1 authorized ROE in three of the Company's last four general rate
2 cases.

3 **J. Annual Review Process**

4 **Q. Outline of the Public Staff's view on the appropriate way to**
5 **conduct the Annual Review Process.**

6 A. The Company stated that it plans to follow all the reporting
7 requirements outlined in Commission Rule R1-17A. The Rule gives
8 the Public Staff 15 days to review the annual filing. The Public Staff
9 recommends that the Company be required to provide the Public
10 Staff and the Commission with all the supporting workpapers and
11 calculations at the same time the Company makes the annual filing
12 to maximize the time available to the Public Staff to conduct its
13 investigation and report the results to the Commission. Further, as
14 stated in Commission Rule R17A(g)(3), the Commission may
15 consider proforma adjustments to the utility's per books capital
16 expenditures, expenses, and revenues when determining the utility's
17 rate of return on equity. Certain proforma adjustments can be
18 contested between the Public Staff and the Company. To facilitate
19 the annual review process, the Public Staff recommends the
20 Company utilize the same methodology to calculate rate base,
21 revenues, and expenses as used to calculate those items in a
22 general rate case.

23 **Q. Why is the earnings test significant?**

1 A. The earnings test is significant because the results dictate whether
2 the Company is operating within its authorized ROE band. If the
3 Company's earnings are greater than the high-end of the band, then
4 a refund is required. If the Company's earnings are less than the low-
5 end of the band, then the Company is eligible to file a general rate
6 case application during the WSIP.

7 **Q. Describe the way in which the earnings test should be**
8 **performed.**

9 A. The earnings test should be performed on a rate division basis by
10 reviewing the calculations and supporting documentation provided
11 by the Company as part of the Annual Review process required by
12 Commission Rule R1-17A. The Company should provide detailed
13 supporting documentation to the Public Staff so the Public Staff can
14 determine if the rate base, revenues, and expenses included in the
15 Company's calculation of earnings were prudently incurred and
16 properly accounted for and recorded.

17 **K. Refunds of Excess Earnings**

18 **Q. Outline the Public Staff's view on the appropriate way to**
19 **refund excess earnings to ratepayers.**

20 A. Commission Rule R1-17A(i) defines the refund process of excess
21 earnings. The Public Staff recommends the Company follow the rule
22 requirements when making refunds to customers. For clarity, the

1 Public Staff recommends the earnings calculation and the refund on
2 excess earnings be performed at a rate division-level for each rate
3 division to ensure that any excess earnings flow back to the
4 appropriate customers.

5 **Q. Is the Public Staff's recommendation consistent with the**
6 **Company's position?**

7 A. The Company did not state a position regarding the appropriate
8 manner to refund excess earnings to ratepayers.

9 **L. Assessment of the Public Staff's**
10 **Recommended WSIP**

11 **Q. Does the Public Staff's recommended WSIP meet the statutory**
12 **requirements?**

13 A. Yes, the Public Staff's recommended WSIP better aligns with the
14 public interest by establishing rates that are fair to the customer and
15 utility while reasonably ensuring the continuation of safe and reliable
16 utility service. Furthermore, the Public Staff's WSIP does not result
17 in a sudden substantial rate increase to customers annually or over
18 the term of the WSIP.

19 **Q. Does this conclude the Public Staff's testimony?**

20 A. Yes, it does.

QUALIFICATIONS AND EXPERIENCE

JOHN ROBERT HINTON

I received a Bachelor of Science degree in Economics from the University of North Carolina at Wilmington in 1980 and a Master of Economics degree from North Carolina State University in 1983. I joined the Public Staff in May of 1985. I filed testimony on the long-range electrical forecast in Docket No. E-100, Sub 50. In 1986, 1989, and 1992, I developed the long-range forecasts of peak demand for electricity in North Carolina. I filed testimony on electricity weather normalization in Docket Nos. E-7, Sub 620, E-2, Sub 833, and E-7, Sub 989. I filed testimony on customer growth and the level of funding for nuclear decommissioning costs in Docket No. E-2, Sub 1023. I filed testimony on the level of funding for nuclear decommissioning costs in Docket Nos. E-7, Sub 1026 and E-7, Sub 1146. I have filed testimony on the Integrated Resource Plans (IRPs) filed in Docket No. E-100, Subs 114 and 125, and I have reviewed numerous peak demand and energy sales forecasts and the resource expansion plans filed in electric utilities' annual IRPs and IRP updates.

I have been the lead analyst for the Public Staff in numerous avoided cost proceedings, filing testimony in Docket No. E-100, Subs 106, 136, 140, 148, and Sub 158. I have filed a Statement of Position in the arbitration case involving EPCOR and Progress Energy Carolinas in Docket No. E-2, Sub 966. I have filed testimony in avoided cost related to the cost recovery of energy efficiency programs and

demand side management programs in Dockets Nos. E-7, Sub 1032, E-7, Sub 1130, E-2, Sub 1145, and E-2, Sub 1174.

I have filed testimony on the issuance of certificates of public convenience and necessity (CPCN) in Docket Nos. E-2, Sub 669, SP-132, Sub 0, E-7, Sub 790, E-7, Sub 791, and E-7, Sub 1134.

I filed testimony on the merger of Dominion Energy, Inc. and SCANA Corp. in Docket Nos. E-22, Sub 551, and G-5, Sub 585.

I have filed testimony on the issue of fair rate of return in Docket Nos. E-22, Subs 333 412, and 532; P-26, Sub 93; P-12, Sub 89; G-21, Sub 293; P-31, Sub 125; P-100, Sub 133b; P-100, Sub 133d (1997 and 2002); G-21, Sub 442; G-5, Subs 327, 386; and 632; G-9, Subs 351, 382, 722 and Sub 781, G-39, Sub 47, W-778, Sub 31; W-218, Subs 319, 497, 526; W-354, Sub 360; 364, and in several smaller water utility rate cases. I have filed testimony on credit metrics and the risk of a downgrade in Docket No. E-7, Sub 1146.

I have filed testimony on the hedging of natural gas prices in Docket No. E-2, Subs 1001 and 1018. I have filed testimony on the expansion of natural gas in Docket No. G-5, Subs 337 and 372. I performed the financial analysis in the two audit reports on Mid-South Water Systems, Inc., Docket No. W-100, Sub 21. I testified in the application to transfer the CPCN from North Topsail Water and Sewer, Inc. to Utilities, Inc., in Docket No. W-1000, Sub 5. I have filed testimony on rainfall normalization with respect of water sales in Docket No. W-274, Sub 160.

With regard to the 1996 Safe Drinking Water Act, I was a member of the Small Systems Working Group that reported to the National Drinking Water Advisory Council of the U.S. Environmental Protection Agency. I have published an article in the National Regulatory Research Institute's Quarterly Bulletin entitled Evaluating Water Utility Financial Capacity.

QUALIFICATIONS AND EXPERIENCE

CHARLES M. JUNIS

I graduated from North Carolina State University, earning a Bachelor of Science Degree in Civil Engineering in May 2011. I am a licensed Professional Engineer in North Carolina since December 2015. I have over eleven years of water and wastewater engineering experience, and since joining the Public Staff in April 2013, have worked on general rate cases, new franchise and transfer applications, emergency operations proceedings, customer complaints, rulemakings, and other aspects of utility regulation. I have assisted in the investigation and drafting of petitions and/or testified in the Webb Creek (Docket No. W-864, Sub 11), Riverbend Estates (Docket No. W-390, Sub 13), Mountain Air (Docket No. 1148, Sub 20), and Kinnakeet Shores (Docket No. W-1148, Sub 20) emergency operator proceedings. Especially relevant to the WSIP, I contributed to the Public Staff's draft rules, forms, and comments filed as part of the rulemaking process in Docket No. W-100, Sub 63. Prior to joining the Public Staff, I worked for Farnsworth Group, an engineering and architectural consulting firm. Through this education and experience, I have gained considerable knowledge of relevant engineering and construction principles and utility management, operations, maintenance, and capital planning.

QUALIFICATIONS AND EXPERIENCE

KUEI FEN SUN

I graduated from North Carolina State University, in Raleigh, North Carolina, with a Master of Science in Accountancy (with a concentration in Auditing/ERM) in 2010. Prior to joining the Public Staff, I worked in state government and the private sector for 12 years as an external and internal auditor.

I joined the Public Staff as a Financial Analyst II in September 2021 and was promoted to Financial Analyst III in August 2022. I am responsible for (1) examining and analyzing the utilities company's applications, testimony, exhibits, books and records, and other data presented by utilities and other parties under jurisdiction of the Commission or involved in Commission proceedings; and (2) preparing and presenting testimony, exhibits, and other documents for presentation to the Commission in those proceedings.

Since joining the Public Staff, I have performed several audits and presented testimony and exhibits before the Commission regarding a range of electric and water topics. I have filed testimony and exhibits in the C&P Enterprise, Inc., water and sewer general rate case. Additionally, I have worked on electric rider rate proceedings, particularly in program cost review of demand-side management and energy efficiency programs for DEC and DEP, the Joint Agency Asset Rider proceeding, the Existing Demand Side Management Program Rider,

the Bulk Power Marketing Rider, and the review of New River Light and Power Purchase Power Adjustment.

QUALIFICATIONS AND EXPERIENCE

FENGE ZHANG

I graduated from North Carolina State University with a Bachelor of Science degree and a Master's degree in Accounting. I am a Certified Public Accountant. I am a Financial Manager – Electric Section of the Accounting Division with the Public Staff of North Carolina Utilities Commission.

As a Financial Manager with the Accounting Division of the Public Staff, I am responsible for the performance, supervision, and management of the following activities: (1) the examination and analysis of testimony, exhibits, books and records, and other data presented by utilities and other parties under the jurisdiction of the Commission or involved in Commission proceedings; and (2) the preparation and presentation to the Commission of testimony, exhibits, and other documents in those proceedings.

I was first employed by the Public Staff in March 2012. Then in 2016, I was began employment with the Commission until I returned to Public Staff employment in May 2022. Throughout this time, I have been involved in audit and review of various topics related to the regulated telephone, water, sewer, electric and natural gas industries, including the most recent general rate cases for Carolina Water Service, Inc. of North Carolina in 2022 and Aqua North Carolina, Inc. in 2022. I have also filed and assisted with the Demand Side Management and Energy Efficiency riders, electric fuel rider cases, gas annual reviews, and lead

lag studies. Most recently, I filed an affidavit on Duke Energy Progress, LLC's 2022 fuel proceeding in Docket No. E-2, Sub 1292.

1 COMMISSIONER CLODFELTER: So I think we
2 now have a proper predicate to have the panel in
3 front of us. But since you're gonna provide oral
4 testimony, we'll give you the oath for your oral
5 testimony.

6 So hands on the Bible. Left hand's on
7 the Bible, right hand's up.

8 Whereupon,

9 JOHN R. HINTON, CHARLES JUNIS, AND FENGE ZHANG,
10 having first been duly sworn, were examined
11 and testified as follows:

12 COMMISSIONER CLODFELTER: And just let
13 me note for the record, too, that Ms. Fen Sun was
14 also on this panel, but her testimony has been
15 excused and she will not be appearing as part of
16 this panel. All right.

17 And with that.

18 DIRECT EXAMINATION BY MR. GRANTMYRE:

19 Q. Mr. Hinton, did you prepare and file, on
20 October 26, 2022, direct testimony consisting of
21 41 pages, Appendix A and B, and six exhibits?

22 A. (John R. Hinton) Yes.

23 Q. And if I were to ask you the same questions
24 again today, would your answers be the same?

1 A. Yes.

2 Q. Do you have any additions or corrections?

3 A. One correction. On page 5 of my direct
4 testimony, the table there --

5 MR. ALSON: Your Honor, I would object
6 for the moment. Am I correct that corrections
7 should have already been submitted in advance of
8 now?

9 COMMISSIONER CLODFELTER: Corrections
10 were to have been submitted, as required by the
11 procedures order, by November 22nd.

12 However, Mr. Alson, I will -- if there's
13 an additional question that was overlooked, I will
14 hear the additional question.

15 Go ahead.

16 THE WITNESS: The table there, starting
17 on line 7, the number for overall return proposed
18 says 7.045. It should be 7.05 percent.

19 Q. And now I'll ask the whole panel. Did
20 y'all -- oh.

21 Will you please state your name and what your
22 position is with the Public Staff, Mr. Hinton?

23 A. My name is John Robert Hinton. I'm director
24 of the economic research division of the Public Staff.

1 Q. Mr. Junis, would you please state your name
2 and position with the Public Staff.

3 A. (Charles Junis) Yes. Charles M. Junis,
4 director of the Public Staff water, sewer, and
5 telephone division.

6 Q. And, Ms. Fenge, will you please state your
7 name and position with the Public Staff?

8 A. (Fenge Zhang) Yes. My name is Fenge Zhang.
9 I am the financial manager for the electric section of
10 the Public Staff accounting division.

11 Q. Now, for the whole panel, did y'all prefile,
12 on October 26, 2022 -- okay. We don't do that? Okay.

13 I asked the panel, and I think Fenge is the
14 one who created this, I'm not sure --

15 COMMISSIONER CLODFELTER: Mr. Grantmyre,
16 we have already taken into evidence all of their
17 prefiled testimony, and their prefiled exhibits
18 have been received into evidence.

19 MR. GRANTMYRE: But this -- could I
20 approach the witness? I want to hand her the Cross
21 Examination Exhibit Number 6 that we had a
22 conversation about.

23 COMMISSIONER CLODFELTER: If that's the
24 purpose of the direct examination at this point,

1 I'll allow it for that purpose, yes.

2 MR. GRANTMYRE: (Handing.)

3 Q. Did you prepare this exhibit?

4 A. (Fenge Zhang) What would be the best way to
5 put this one? So some degree, yes. Those numbers are
6 directly from the Public Staff settlement exhibit with
7 the assumption of the 9.25 for ROE as well as the --
8 what the Company proposed on their application.

9 Q. So using the 9.25 and the 10.45, those
10 numbers would be correct for the base year?

11 A. (No response.)

12 Q. And each of the other years, you know, the
13 10.7 for rate year one, rate year two, and rate year
14 three; is that correct?

15 A. If you are only talk about this schedule,
16 that's how we prepare those number based on the
17 percentage of the ROE provided by the Company.

18 Q. And the last column that says "sum," those
19 numbers were calculated by the Public Staff accounting
20 division?

21 A. I don't think that's the sum. I think
22 Mr. Freeman said that he calculated those numbers.

23 Q. Thank you.

24 MR. GRANTMYRE: The witnesses are

1 available for cross examination.

2 COMMISSIONER CLODFELTER: Okay. Cross
3 examination?

4 CROSS EXAMINATION BY MR. ALSON:

5 Q. Thank you all.

6 All the panelists, I want to start by saying
7 that I'm going to be asking questions only of
8 Mr. Hinton. So if I say "you," I'm speak to
9 Mr. Hinton.

10 Mr. Hinton, you are testifying as to the cost
11 of capital and the return on equity that Carolina Water
12 Service should be authorized, correct?

13 A. (John R. Hinton) Yes.

14 Q. And you filed one piece of stand-alone
15 testimony and another piece of testimony that you
16 jointly sponsored as a panel with other witnesses,
17 correct?

18 A. Yes.

19 Q. Do you have both of those documents in front
20 of you?

21 A. Yes, I do.

22 Q. And is pages 62 through 68 of the joint
23 testimony regarding cost of capital, is that the
24 portion of the joint testimony that you are responsible

1 for?

2 A. Yes. Well, through 60 -- yes. The top of
3 page 68, correct.

4 Q. I'll note, just for clarity purposes, that
5 when I look at the chart on page 5 of the joint
6 testimony, it references some different pages. But I
7 think that's just a clerical error, and I want to make
8 sure that 62 through 68 is your testimony.

9 A. It is. I mean, I had a minor role in the
10 discussion on inflation. But with regards to the cost
11 of capital, it's largely on those pages.

12 Q. Okay. And did you file any corrections to
13 your stand-alone testimony?

14 A. Just that rounding number.

15 Q. Right. And you had the correction today.

16 Other than the correction today, any other
17 corrections to your testimony?

18 A. No.

19 Q. And you didn't file any with respect to the
20 joint testimony?

21 A. No.

22 Q. We're gonna start with the -- your
23 stand-alone testimony, Mr. Hinton.

24 Do you have before you what's been marked as

1 Hinton Proposed Cross Exhibit Number 1?

2 A. Yes.

3 (CWSNC Hinton Proposed Cross Exhibit
4 Number 1 was identified as it was marked
5 when prefiled.)

6 Q. And I should also ask here, do you have the
7 rebuttal testimony of Dylan D'Ascendis in front of you?

8 A. I can get it. Hold on one second.

9 Q. Thank you.

10 A. (Witness peruses document.)

11 Q. Do you have that in front of you, Mr. Hinton?
12 I apologize.

13 A. Yes, I do.

14 Q. Thank you.

15 Can you identify what's been marked as Hinton
16 Proposed Cross Exhibit Number 1?

17 A. I've got the whole thing, yes, all my
18 testimony.

19 Q. Can you identify what that document is,
20 please?

21 A. Yeah. It's testimony I filed in a Piedmont
22 Natural Gas case.

23 Q. And it's inclusive of your exhibits to that
24 testimony?

1 A. Yes.

2 Q. If you could please turn to page 36 of the
3 testimony. This is in Hinton Cross Exhibit Number 1.

4 A. (Witness peruses document.)

5 I'm there.

6 Q. And then if you could keep your finger there
7 and also go back to your Exhibit 8 of Hinton Cross
8 Exhibit Number 1.

9 A. (Witness peruses document.)

10 A. (Charles Junis) You said Exhibit 1 of the
11 cross or --

12 Q. No.

13 A. Exhibit 8. I'm sorry.

14 Q. Exhibit 8 to the Piedmont testimony, which is
15 Cross Exhibit Number 1.

16 A. Okay.

17 A. (John R. Hinton) Yes, I have them. Yes.

18 Q. Is this a comparable earnings analysis that
19 you performed for the Piedmont Gas rate case?

20 A. Yes, it is.

21 Q. And in that testimony, if you go to page 37,
22 starting at line 15, you state that you conduct a
23 comparable earnings analysis as a check on your other
24 cost of equity analyses, correct?

1 A. That's correct. And the only thing I would
2 add to that one statement is that I've often explained
3 that it's not a determining analysis. It's merely a
4 quote check.

5 Q. Right. And that's what you say here.

6 COMMISSIONER CLODFELTER: Mr. Hinton,
7 you're gonna need to pull the microphone a little
8 further close. Folks in the back of the room are
9 having some trouble.

10 Q. Mr. Hinton, but you presented no such
11 comparable earnings analysis in this Carolina Water
12 case, did you?

13 A. No, I didn't. And may I explain?

14 Q. Yes, sir.

15 A. I anticipated this question after reading the
16 rebuttal testimony of Mr. D'Ascendis. And the reason I
17 did not do a comparable earnings is largely because of
18 I was performing, we'll say, triage.

19 I'm the only one in my division at this point
20 in time. I have several cases on my to-do list. And
21 because -- the core reason is because I really give
22 this method a check status. It is not a determining
23 method. I just -- I honestly never came to my mind to
24 try to manipulate a record in any sort of way. I just

1 didn't -- it didn't come to me to do the method.

2 I was hustling on my data analysis. I knew
3 the DCF and the risk premium are my core methods, and
4 that's why I did not include the comparable earnings.

5 There's -- there's a host of reasons why it's
6 a relatively weak method, as I address in my testimony.
7 But the reason I did not include it in this analysis is
8 that reason. It wasn't because I did the numbers and
9 saw that the numbers would be supportive of a higher
10 number.

11 I have -- last night I did the numbers, and I
12 can discuss that, my interpretation of what comparable
13 earnings would give me today, if you like.

14 Q. I heard you mention that it's a weak method.

15 On page 37 of your testimony in Piedmont, you
16 do say -- discuss that:

17 "The strength of the method is that
18 information on earned returns on common
19 equity is widely available to investors, and
20 it is believed that investors use actual
21 earned returns as a guide in determining
22 their expected return on an investment."

23 Your testimony goes on to discuss some
24 weaknesses of the method, but there's also, you would

1 concede, strengths to the method.

2 A. They are considered strengths. I just -- and
3 when I look at the models available to me, as
4 Mr. D'Ascendis does, I don't give it a higher status,
5 or I don't give the returns the weight I would normally
6 do with the DCF or risk premium model.

7 And I think the DCF and risk premium model
8 attack both the bond market and how that affects the
9 investment quality of return on utility investment; and
10 the DCF, of course, targets the stock market and the
11 rule required to come up with an estimate for the
12 required return that investors need to go into the
13 utility side.

14 Q. So could you, sort of, explain step-by-step
15 how you do a comparable earnings analysis?

16 A. Yes. I mean, I have just typically used the
17 Value Line data, as Mr. D'Ascendis has done. I look at
18 it over some historical time period.

19 I generally do not look at a forecast. I
20 look at -- because the comparable earnings method is,
21 by itself, determined as comparable earned returns. So
22 I stop it with the one year short of the -- you know,
23 the partial years that did.

24 And the question then becomes is, what

1 historical time period is reflective of even as the use
2 of a check method. And that's another subjective
3 determination that I have made. And many years I've
4 gone five years, sometimes ten, sometimes four.

5 And if you looked at the current numbers that
6 Mr. D'Ascendis has in his cross exhibit, if you look at
7 the last three years, you see an average return around
8 9.6 or 9.7.

9 You know, again, it's going back to the
10 weakness of the model, though it is a reasonable model,
11 but I consider it weak, is that how do I determine what
12 historical period is appropriate. And so I hesitate to
13 use it and give it any chief determining weight.

14 Q. So you have Mr. D'Ascendis' rebuttal in front
15 of you. If you could turn to Rebuttal Schedule DWD-R4.

16 A. (Witness peruses document.)

17 Yes.

18 Q. And would you agree that Rebuttal Schedule
19 DWD-R -- 4R, sorry, 4R, Mr. D'Ascendis has replicated
20 your comparable earnings analysis for the Carolina
21 Water case?

22 A. He's -- yeah. I mean, he's grabbed a
23 comparable earnings analysis that I did in the Piedmont
24 case, approach I did there, and applied it to the six

1 companies in my group. And I'm just saying that his
2 historical ROEs' average and median is 10 percent. But
3 if you look at the average and the median of '19 --
4 from 2019 to 2021, you get 9.6 to 9.7 percent return.

5 You know, as I stated in my direct testimony,
6 obviously, earned returns are affected by, as noted,
7 weather. A drought can mean excessive --
8 larger-than-normal sales. Nonregulated earnings.

9 I mean, there may be reasons why American
10 States Water continually earns higher return on earned
11 returns than they are probably allowed returns on the
12 equity, you know. I can't explain it without doing a
13 whole lot of analysis, and I don't think the analysis
14 is where I want to spend my time, for lots of reasons.

15 Again, one of the key reasons they've always
16 said is circularity is a problem with this method.
17 It's not a method I want to invest a lot of time in.

18 And, as I stated early on, triage was the
19 mode I was in, but I honestly did not say, "I'm not
20 gonna do a comparable earnings." I just didn't think
21 of it.

22 Q. Mr. D'Ascendis' rebuttal schedule here, it
23 uses the same source, I think you would confirm, that
24 you used in Piedmont?

1 A. Yes. We -- Value Line is a reasonable source
2 to calculate earned returns on equity.

3 Q. And just like in Piedmont, Mr. D'Ascendis
4 went back the most recent is six years in conducting
5 the analysis; is that true?

6 A. Yes. That is correct.

7 Q. And you used -- I mean, you used 2019 and
8 2020 in your Piedmont analysis, right?

9 A. Yeah. I do typically use five or six years.
10 I mean, five years is -- I know I've done that before.

11 But my record is not complete. It's not like
12 I do a comparable earnings in every cost of capital
13 testimony I've ever put forth. It's not. I've done
14 CAPM before and -- but of the last 10 years, I've done
15 risk premiums and DCF as the principal methods I use.

16 Q. And back to Mr. D'Ascendis's schedule, he
17 used the -- the six companies that he used there are
18 the same proxy group that you used in your testimony
19 for water companies, correct?

20 A. Correct. They're the ones covered by the
21 standard addition of Value Line.

22 Q. And the only difference here is that
23 Mr. D'Ascendis has replicated your analysis using not
24 just historical returns on the left side of the

1 vertical line on the exhibit, but he also has some
2 projected returns, correct?

3 A. Yes.

4 Q. Do you see any errors in Mr. D'Ascendis'
5 historical comparable earnings inputs?

6 A. No, not -- subject to check, there is no
7 errors, to my knowledge.

8 Q. And so has Mr. D'Ascendis' comparable
9 earnings analysis, using historical returns, produces
10 an approximately 10.0 return on equity, correct?

11 A. That's what his exhibit has, yes.

12 Q. And in Piedmont, your comparable earnings
13 model was 9.5 percent, which you said was a reasonable
14 check on your other cost of equity analyses in that
15 case, correct?

16 A. If I remember right, I had calculated a
17 median and an average. And I'll have to double-check
18 which one was -- there was one number that was like
19 10 percent and one number was 9.5, so I put my weight
20 on the median.

21 Now, again, that should show to the
22 Commission and to yourself that the weakness of this
23 method of 50 basis points' difference, like in my
24 Piedmont testimony, based on what type of averaging I

1 used, whether I used the median of Central Tennessee or
2 whether I used an average of Central Tennessee.

3 Q. And I'll point out the 10.0 and the
4 9.5 percent figures are on Exhibit 8 to your Piedmont
5 testimony, correct?

6 A. Correct.

7 Q. And, in fact, your Piedmont testimony, your
8 overall ROE was 9.42 percent, so your -- the 9.5 number
9 that you said was more appropriate was, in your words,
10 a reasonable check on your 9.42 ROE, correct?

11 A. Yes. It was within reason to my final
12 determination of what I believed the cost of capital
13 was for Piedmont.

14 Q. So in this case -- have you ever used a
15 three-year analysis for the comp earnings method?

16 A. To be honest with you, I might have. I mean,
17 I look at all the numbers, and that's why you see an
18 average across the bottom of that table.

19 So all those numbers come to me, and I may
20 look at an aggregate average, see what a moving average
21 is. But, I mean, I can't say if I have or have not, to
22 be honest with you. But I do look at averages. I
23 mean, that's just number crunching.

24 Q. So in this case, Mr. D'Ascendis' analysis,

1 which I think you said was, subject to check,
2 mathematically correct, has a historical ROE of 10.0.
3 And you'd agree that your risk premium method was -- in
4 this case, was at 9.90 percent, and your DCF model
5 analysis yielded an average estimate of 9.0 percent,
6 correct?

7 A. I hate to say it, but I believe that was my
8 testimony, yes, subject to check. I'll flip to my
9 exhibit to make sure, but yes.

10 Q. If you need to check your exhibit, please do
11 so.

12 A. (Witness peruses document.)
13 Yes, that's correct.

14 Q. So you, sort of, have a range of 9.0 on one
15 end and 9.9 on the other end, and you average them
16 together and give them equal weight to say
17 9.45 percent.

18 But if you had done the comparable earnings
19 model, you testified that it's your reasonable check,
20 that landed on the higher end of your range. So
21 wouldn't that have informed you, or does that inform
22 you that the higher end of your range would be more
23 reasonable?

24 A. Not necessarily, no.

1 Q. Why not?

2 A. Because it's a check method. It's not a
3 determining method. And if it was the determining
4 method, I gave it equal weight to this premium and the
5 DCF, then yes, I would agree with you that I would have
6 to give it more consideration.

7 But it's -- that's the meaning of the word
8 "check," is that it does not determine what I think the
9 appropriate band should be or range should be or the
10 appropriate final determination.

11 Q. That's fair. And I never -- I never asked
12 you to say whether that would be a determinative
13 method. I asked if it was a reasonable check.

14 So in the Piedmont case, if you would have
15 had a range of -- if your proposed ROE was 9.0 -- I
16 know it wasn't, but if it was 9.0, and your comparable
17 earnings analysis puts you at -- the average at
18 10 percent, the median at 9.5 percent, would that
19 have -- would that have caused you pause that it's --
20 maybe that's not a reasonable check?

21 A. I hate to do this to you, but one more time
22 just to make sure I've got your numbers, you're saying
23 it correct.

24 Q. Right. If you come up with a comparable

1 earnings model analysis --

2 A. Yeah.

3 Q. -- that is 100 basis points higher than what
4 your ROE is, does that still -- is that still a
5 reasonable check if, it's 100 basis points different?

6 A. Probably not, to be honest with you. But I
7 don't think I would -- no. 100 basis points is enough
8 of a spread where I would hesitate to give that any
9 weight as a check method.

10 Q. You wouldn't give it any weight as a check
11 method?

12 A. Well, I wouldn't give it weight to move my
13 range any. It just wouldn't be a suitable check
14 method.

15 Q. But what if you've got a range that it's
16 100 basis points away and the other part of your range
17 is 10 basis points away from your comparable earnings
18 method?

19 Wouldn't that give you -- wouldn't that tell
20 you, well, it's more reasonable that the higher end,
21 the 9.9 that's 10 basis points away, that would be more
22 reasonable than the 9.0, so maybe I should give more
23 weight to the one that is 10 basis points away?

24 A. Again, I hate to repeat myself, but it goes

1 back to what method determines the cost of capital.

2 And I just -- I don't give the comparable earnings
3 enough weight to determine what I think their overall
4 range or estimate should be. It's merely a check.

5 And for one thing else, it allows the
6 Commission to look at what other earned returns have
7 been, and it provides that bit of information if I had
8 done a comparable earnings.

9 Q. Let's move on to that portion of your joint
10 testimony which you sponsor, which is pages 62 to 68.

11 A. (Witness peruses document.)

12 Q. Let me know when you're there.

13 A. I am.

14 Q. So you testified that Carolina Water should
15 be authorized a lower ROE if the WSIP plan is approved,
16 right?

17 A. Yes.

18 Q. And 20 basis points lower is your testimony?

19 A. Correct.

20 Q. And the general basis for this position is
21 that you believe that a WSIP reduces regulatory lag and
22 therefore reduces the utility's risk, correct?

23 A. Well, I mean, I go into a couple other items,
24 but the regulatory lag is the key issue. And that's

1 been recognized by, of course, the credit rating
2 agencies.

3 And also, as I think Mr. D'Ascendis says, it
4 allows the matching of earnings and expenses. Now,
5 that's more like cost-of-service issues, but they still
6 matter to earnings. If a company can better manage its
7 expenses with its revenues, it's more likely to have
8 a -- its desired level of earnings.

9 So there is some -- there's an aspect of
10 that, and it does help on the earnings stability issue
11 that I think is appropriate.

12 And as I noted to Mr. D'Ascendis, I believe
13 the discretionary use of water will be a volumetric --
14 will be variable as it is today, you know, because it's
15 used for irrigating yards and -- et cetera. Washing
16 cars.

17 But the core use of water use will pretty
18 much stay. So I believe that WSIP will also help. And
19 that's one way, I think, to characterize the ability to
20 enhance -- excuse me -- the enhanceability to match
21 revenues and expenses.

22 So there's two aspects of it. There is one,
23 the regulatory lag, which the credit rating agencies
24 and, I think, the equity rating agencies recognize.

1 And then there's also the better management functions
2 that would come through a projected revenues and
3 expenses.

4 Obviously, the Company, through this
5 projection, will be somewhat protected from inflation
6 at some level. The question is, is it the right level
7 of inflation. That's another item.

8 But the fact that there's going to be
9 inflation protection in the expenses, because they are
10 escalating, as you know and through the settlement
11 agreement, that that escalation is gonna give a little
12 protection to the Company that never existed before.

13 One of the problems that's always existed
14 with regulation is inflation. And if you go back in
15 history and look back in the 1980s, we had a plethora
16 of rate cases. We were coming off the high inflation
17 of the early '80s. And when I first came to work here,
18 we were doing rate cases quite frequently, much more
19 frequently than we do today.

20 And the core reason behind that was inflation
21 was driving these companies in because their expenses
22 were going faster than their allowable cost of service.

23 So the fact that the WSIP is gonna allow a
24 projected expense level over the next three years will

1 really be a significant boost to the ability to manage
2 their cost and their expenses and revenues, and I think
3 that is significant.

4 You know, again, regulatory lag is the number
5 one, but I think the better -- the management enhanced
6 with this projected cost of service is a plus.

7 Q. So, Mr. Hinton, is it true, looking at the
8 statute and looking at the rules that have been
9 adopted, if the utility over-earns by exceeding the
10 high end of the approved ROE band, the utility must
11 return over-earnings to customers via rate credits?

12 A. That's my understanding, yes.

13 Q. But if the utility is under-earning, if it
14 earns below that -- the bottom of the approved ROE
15 band, it doesn't get to debit the customers, does it?

16 A. No. It has to file for a rate case.

17 Q. Right. And rate case -- oh. Excuse me, sir.

18 A. Yeah. As Carolina Water has done in the
19 past.

20 Q. Right. And those rate cases take a long time
21 to process?

22 A. Correct, yes.

23 Q. And if the utility files a general rate case,
24 the utility might rely on historical test year

1 information, correct?

2 A. In developing their forward-looking
3 projections, yes, I would expect that. That would be a
4 factor in their analysis.

5 Q. And that would -- which would bring with it
6 regulatory lag, does it not?

7 A. Not in the projected -- no, I disagree. In
8 the base year, maybe, but in the -- in developing the
9 base year, but not the projected years. The projected
10 years would still come about.

11 Q. That's assuming they file a multiyear rate
12 plan?

13 A. Correct.

14 Q. But if they file a historical rate plan, then
15 the regulatory lag issue is certainly front and center.

16 A. It would be, but that's not what we have here
17 today. We have a multiyear rate plan on the -- that
18 we've been working on today.

19 Q. But in the event -- and we're talking about
20 in the future. In the event you're under-earning below
21 the lower ROE authorized band --

22 A. Yeah.

23 Q. -- and you suggested, I think -- remember,
24 you suggested that the Company could file a new rate

1 case --

2 A. Right.

3 Q. -- instead of debiting the customers, right?

4 So wouldn't that, Mr. Hinton, if it's a
5 historical test year, bring regulatory lag with it?

6 A. If it's a historical test year, I would
7 expect that. But, again, the answer -- the question
8 the Company would have at its discretion is how to file
9 a rate case.

10 Q. Let's go back --

11 A. (Charles Junis) I think it would be
12 appropriate to add, as a member of this panel --

13 Q. Well, Mr. --

14 MR. ALSON: I'm gonna object to this
15 testimony, Commissioner. I'm asking specifically
16 Mr. Hinton, who I'm cross examining.

17 COMMISSIONER CLODFELTER: I think the --
18 it's my understanding is the parties agree that
19 this panel is here, but only for the purpose of
20 cross examination of Mr. Hinton.

21 MS. HOLT: If I might add, Chair, I
22 think the questions are delving into the joint part
23 of the testimony, and we were informed that they
24 were going to limit it to Mr. Hinton's direct

1 testimony only.

2 COMMISSIONER CLODFELTER: Let's hear the
3 question again.

4 MR. ALSON: I'll retract it. I'll
5 retract that question.

6 COMMISSIONER CLODFELTER: Okay.

7 MR. ALSON: I think the point's been
8 made.

9 COMMISSIONER CLODFELTER: Let me remind
10 you again, I think Mr. Junis is going to be back on
11 the settlement panel, and he'll be fair game for
12 questions at that point on matters that he's
13 testified about.

14 MR. ALSON: Thank you.

15 COMMISSIONER CLODFELTER: Thank you.

16 Q. Mr. Hinton, back to the 20-basis-point
17 deduction that you talked about for the WSIP.

18 The quantification of that is not based on
19 any North Carolina precedent, is it?

20 A. (John R. Hinton) No.

21 Q. And it's not based on precedents from any
22 other jurisdiction outside of North Carolina, is it?

23 A. Not to my knowledge.

24 Q. Right. And it's --

1 A. (Charles Junis) So I would just like to add
2 on the -- on the 20 basis points adjustment --

3 MR. ALSON: Commissioner, I'm going to
4 object to this testimony.

5 THE WITNESS: -- that is Public Staff
6 policy that was part of the joint testimony, and we
7 all contributed. Yes, he sponsored that testimony,
8 but it is joint testimony.

9 COMMISSIONER CLODFELTER: It is. The
10 portion of the testimony, though, that Mr. Hinton
11 earlier testified to is the portion of the
12 testimony that he contributed, so I'll allow the
13 questioning.

14 THE WITNESS: But am I allowed to
15 contribute to that answer?

16 COMMISSIONER CLODFELTER: Gentlemen, I
17 mean, this was -- my understanding was that this
18 was really a cross examination of Mr. Hinton only.

19 MR. ALSON: It is, Commissioner. You're
20 correct.

21 COMMISSIONER CLODFELTER: I'm not sure
22 really, actually, even why we have a panel up here
23 in front of us, because Mr. Hinton did have his own
24 individual testimony. So it's a little difficult

1 here to navigate, because we've got a lot of
2 commingling of testimony that makes it very
3 difficult to keep it sorted out.

4 I want to keep the questioning confined
5 and confined to Mr. Hinton's testimony about the
6 appropriate return on equity.

7 I also am mindful of the fact that we
8 lose counsel at the end of this afternoon and won't
9 get him back until lunchtime tomorrow. So,
10 parties, you need to sort of think about that
11 accordingly. We've got to finish the cross
12 examination, do redirect, Commissioner questions,
13 and we've got a lot of work still to do this
14 afternoon.

15 MR. ALSON: Thank you, Commissioner.

16 Q. Mr. Hinton, you were in the room when Public
17 Staff counsel asked Mr. D'Ascendis about how his
18 recommended ROEs compared to authorized ROEs; do you
19 recall that?

20 A. Yes.

21 Q. In your position as director of the economic
22 research division for the Public Staff, have you ever
23 recommended an ROE that came in above the
24 Commission-authorized ROE?

1 A. No. Like Mr. D'Ascendis, I have order -- I
2 have had a case in North Carolina. It was a telephone
3 case. It was a universal elements case and -- where
4 the Commission accepted my return on the capital
5 structure and my -- my recommendation on the capital
6 structure and recommendation on the ROE, and they were
7 all cost of capital. And it was a telephone case
8 involving BellSouth and GTE and numerous incumbent
9 telephone companies. But no, I've never come in above.

10 MR. ALSON: Thank you. I have no
11 further cross at this time. Thank you.

12 MS. SANFORD: If I might, to the earlier
13 issue about Exhibit 6, whenever you're ready for
14 that.

15 COMMISSIONER CLODFELTER: Well, we
16 opened Exhibit 6 as a result of the prior
17 testimony.

18 MS. SANFORD: Right.

19 COMMISSIONER CLODFELTER: So we do have
20 a little bit of a different purpose for the panel
21 than what we started out with. So I'll let you ask
22 questions about Exhibit 6.

23 MS. SANFORD: I appreciate it.

24 And I want everybody to make sure I'm on

1 the right track here. I think the Public Staff
2 asked Ms. Zhang some questions about this at the
3 beginning of this panel examination.

4 COMMISSIONER CLODFELTER: They did
5 indeed, and that's per the dialogue we had
6 earlier --

7 MS. SANFORD: Right. Okay.

8 COMMISSIONER CLODFELTER: -- about that
9 exhibit. So I'll let you cross examine about
10 Exhibit 6.

11 MS. SANFORD: I will be very, very
12 quick. I have one to two questions of Ms. Zhang,
13 and then I have a request of the Commission.

14 CROSS EXAMINATION BY MS. SANFORD:

15 Q. My question is whether you and whomever else
16 you worked with on this could provide us the Excel
17 workbook and references to where the numbers came from,
18 links and formula intact.

19 It's a two-part question. Can you provide
20 that to us, and how long would it take?

21 A. (Fenge Zhang) Yes, we can provide that, but
22 very simple. So basically just the NOI change goes up
23 to the revenue requirement so you have a retention
24 factor. So it's very straightforward. So, I mean, if

1 you have -- it's on the Public Staff settlement
2 exhibit, the retention factor, so you just apply that
3 retention factor to the NOI changes.

4 MS. SANFORD: If I might have one
5 moment.

6 MR. GRANTMYRE: We would ask that
7 whatever she provides to the Company that she also
8 provide a copy to the Commission staff so they
9 could review it.

10 MS. SANFORD: Absolutely.

11 COMMISSIONER CLODFELTER: You could be
12 sure that that request would have been made if you
13 hadn't made it.

14 MS. SANFORD: Yes, absolutely. We
15 wouldn't -- to the room.

16 If I have just a moment.

17 (Pause.)

18 MS. SANFORD: Now on to my request.

19 And thank you, Ms. Zhang.

20 We -- we, at this point, persist in the
21 objection to the exhibit, but we would ask for
22 those Excel documents so that our people could
23 evaluate this and check these numbers and
24 understand it.

1 And I would ask for some additional
2 direct based solely on this of Mr. Schellinger when
3 it's his time to testify, and we could put this
4 thing to bed.

5 COMMISSIONER CLODFELTER: Well, as I
6 understand the testimony, the source data is in the
7 exhibits to the Public Staff settlement testimony,
8 and you simply perform the calculation applying two
9 different rates of return to that exhibit.

10 THE WITNESS: Yes.

11 COMMISSIONER CLODFELTER: You have that
12 exhibit, but you don't have it in electronic form?

13 THE WITNESS: Right. Actually, the
14 Public Staff provided it to the Company as well, so
15 they should have it. But, I mean, we can perform
16 the simple calculation, if they really need it.

17 COMMISSIONER CLODFELTER: All right.
18 Let's do this.

19 I think the request is appropriate. I
20 think the request is legitimate. I'm going to ask
21 that -- overnight, that you work with the Public
22 Staff counsel and confirm that you either already
23 have the source data in electronic format so that
24 you can validate it yourself, or, if you don't have

1 it, that you get it. And that, of course, includes
2 Commission staff in any deliverables that you
3 provide.

4 Okay. Do we have anything further on
5 Exhibit 6?

6 MS. SANFORD: I have nothing to add to
7 that. That would be acceptable, and we appreciate
8 it.

9 COMMISSIONER CLODFELTER: Okay.

10 With that said, then, the witness is
11 back on redirect.

12 MR. GRANTMYRE: Hopefully, I'll be
13 quick.

14 REDIRECT EXAMINATION BY MR. GRANTMYRE:

15 Q. Mr. Hinton, you were asked about comparable
16 earnings.

17 Is it true that you believe that it's not a
18 reliable way to set cost of capital ROEs?

19 A. (John R. Hinton) Correct. I do not believe
20 it is reliable. The numbers can move for a host of
21 reasons, as noted in my prefiled testimony and as
22 discussed today.

23 Q. Now, how does deferred taxes -- does that
24 bloat a company's net income that would affect

1 comparable earnings?

2 A. Yes, it would. A host of -- accounting
3 issues are one of the core problems with earned
4 returns.

5 Again, the purpose of coming today with
6 Mr. D'Ascendis as well as myself is to come up with
7 investor-required rate of return, not the earned
8 return. Because earned return is affected by nature,
9 accounting standards, customer acceptance of your
10 product, you know, management changes, et cetera.

11 Q. Now, with respect -- with respect to
12 unregulated earnings, Mr. D'Ascendis' comparable
13 earnings approach, you prepared a schedule which you
14 gave me last night; is that correct?

15 A. I believe so, yes. But last night was a long
16 night.

17 Q. Or maybe it was this morning. It was recent.

18 A. Recently, yes.

19 Q. And in that you used a three-year average; is
20 that correct?

21 A. Correct.

22 Q. And what was your median of those six
23 companies for three years?

24 MR. ALSON: Your Honor, I'm gonna object

1 to this. I think the testimony was that the day
2 before the hearing he's running a new comparable
3 earnings analysis that has not been prefiled, that
4 we've not seen, and that I believe Counselor is
5 going to try to walk him through this document
6 we've never seen before.

7 COMMISSIONER CLODFELTER: It's a
8 legitimate objection, except for the fact that I
9 think you opened this up by asking Mr. Hinton the
10 very same questions and allowed him to provide you
11 the answers as to what he had done in response to
12 the criticism that he didn't use this method of
13 analysis. He went through that on your cross
14 examination, and I think you opened the door to it.

15 Now, if they're going to offer an
16 exhibit, I'll hear you on objection to an exhibit.
17 But I think it's a proper line of oral questioning
18 at this point on redirect.

19 Q. Now, in your analysis that you did, you used
20 the same numbers as Mr. D'Ascendis for 2/16 through
21 2/21. So they would be found on Rebuttal Exhibit
22 Number 1, DWD-4R; is that correct?

23 A. Yes, that's correct.

24 Q. And when you just took the last three years

1 of 2/19 through 2/21, that's where you came up with the
2 median of 9.7; is that correct?

3 A. Yes. And I believe I explained earlier that
4 I had an average of 9.6, if I remember.

5 Q. Yes. Now, in that, as we look at
6 Mr. Hinton's -- Mr. D'Ascendis' Rebuttal Exhibit
7 DWD-4R, do you see at the top American States Water?

8 A. Yes.

9 Q. And isn't it true that their -- the lowest in
10 the last six years was 2018 at 11.4?

11 A. Correct. And the highest was 2019 at 14.0.

12 Q. And in looking at their rate cases that
13 you've seen in some of our exhibits, isn't it true that
14 they never had an approved ROE above 9 -- above
15 10 percent?

16 A. Not to my knowledge. I have not done a
17 thorough search of all the ROEs with American States
18 Water, but I'd be quite surprised if in the last --
19 since 2016 that any company got return of equity
20 substantially over 10 percent.

21 Q. Now, doesn't American States Water have a
22 significant amount of unregulated price-regulated
23 activities operating military bases for the
24 U.S. government?

1 A. We've talked about that briefly, but I'm
2 afraid I have not done enough work on their 10-Ks to
3 verify that.

4 Q. Now, what about when they filed something
5 with the Commission about serving Fort Bragg? Are you
6 aware that they provide the water and wastewater for
7 Fort Bragg?

8 A. No, I'm not.

9 Q. Okay. Now, American Water Works, on
10 Mr. D'Ascendis for the year 2021, it had a 17.3 percent
11 ROE.

12 Now, isn't that massively above any approved
13 ROEs for American States Water and any of those --
14 actually, none of those were over 10 percent?

15 A. Correct. 17.3 percent would be considered an
16 outlier. And, likewise, the SJW for that same year,
17 2021, had a return on equity of 5.8 percent. And so
18 both those returns would not be indicative of, again,
19 the required return on equity, which is what we see.

20 Q. Now, also on this line 5 is Middlesex Water.
21 And the lowest they ever have is 9.9, but they're also
22 11.1 in 2020; 2019, 10.4; 2018, 13.0.

23 Isn't that substantially above their allowed
24 approved ROEs in their rate cases that are in our

1 schedules?

2 A. I would -- I would accept that. You know,
3 they are lower than American States Water, but, again
4 it's hit-or-miss on these -- on this method.

5 But, you know, overall, I mean,
6 Mr. D'Ascendis has an average of 10. You know, you can
7 look at the same numbers and say, "Well, I don't think
8 the last six years is appropriate. I think the three
9 years are appropriate," and have about the same
10 intellectual basis in saying that.

11 Q. Now --

12 A. And that's not gonna argue that the 9.6 is
13 what his comparable earnings shows as well as the
14 10 percent, and that's the inherent weakness in this
15 method.

16 Q. Now, do you believe that a potential investor
17 would give more focus on the last three years than
18 going back six years?

19 A. Yes, I would accept that. The last three
20 years for a comparable earnings approach would probably
21 have a little more value.

22 Again, it all depends on your perspective,
23 you know. It's very possible it would. But, again,
24 we're talking -- we're dancing around a method that

1 I -- again, I can only use as a check, because I think
2 that's the value that it offers to the analyst.

3 Q. Now, with respect to your joint testimony,
4 you have Exhibit Number 7, which is Moody's. It's
5 really based on regulated electric and gas utilities.
6 But in that, in your testimony, you talk about they
7 give 50 percent to the regulatory framework an ability
8 to recover cost and earn returns.

9 Would you please address that again?

10 A. Yes. I mean, that -- and I've talked over
11 the years several times with people with Moody's. And
12 they are very concerned with the attitude, the
13 philosophy, the prudence of a Commission, of how they
14 allow a company to recover its capital.

15 Remember, they're bond rating folks, not
16 equity rating folks. So they're concerned the Company
17 will extend capital and have the ability to recover it
18 with carrying costs, so they can earn their cost of
19 capital plus a profit.

20 And so Moody's gives weight -- a lot of
21 weight, as you said, over 50 percent -- to the ability
22 to get cost recovery.

23 Q. Now, I refer you to your Exhibit 7, page 4 --
24 4 of 51. Could you turn to that, please?

1 A. Yes.

2 Q. And in the middle of the page, it has
3 "subfactor weighting, regulated utilities."

4 Could you please read where it has, below
5 that, "regulatory framework"? "Regulatory framework,
6 25 percent"?

7 A. Oh, of course, yes.

8 "Regulatory framework, 25 percent. Ability
9 to recover cost and earn returns,
10 25 percent."

11 Q. Okay. But in the 20 -- ability to recover
12 costs, what's the first line that they gave
13 12.5 percent to?

14 A. Timeliness of recovery of operating and
15 capital cost. They also have consistency of
16 predictability of regulations.

17 So when they're breaking down the 25 percent,
18 they split that 25 percent into two factors that they
19 give weight.

20 And so the first one -- let me -- I want to
21 back up a little bit. The legislative and judicial
22 opinions of the regulatory framework, 12 and a half
23 percent. Consistency and predictability of regulation,
24 12 and a half percent.

1 Now we go to the same category of ability to
2 recover costs on returns, and they then look at
3 timeliness and sufficiency of recovery in rates of
4 return.

5 Q. Now, with respect to your testimony on
6 page 15 at the bottom, starting on line 15, could you
7 please read into the record Janney's Water Industry
8 Report, which is Exhibit 9 in your testimony? Could
9 you read that to the end of the paragraph?

10 A. I'm gonna ask you again to restate what
11 exactly you want me to read. I'm looking at the Janney
12 report. I think it's Exhibit 8, page 1 of 18.

13 Q. Well, I'm reading from page 63. What does
14 Janney say about the regulatory climate?

15 A. I have a problem.

16 Q. Okay. I refer you to --

17 A. Could you bring me the page? That was one
18 report I did not bring.

19 Q. It's your testimony I'm reading from.

20 A. Yes.

21 Q. Okay? On page 63 of your testimony, line 15?

22 A. Okay. Yes.

23 Q. "Janney's Water Industry Report." Can you
24 start there and read to the end of the paragraph?

1 A. Yes. I'm sorry.

2 "In a similar investment report, Janney's
3 Water Industry Report, included as Public
4 Staff Exhibit 9, writes that 'When we
5 evaluate the regulatory climate of a state,
6 we focus on three things -- three items:
7 consistency of regulatory treatment, allowed
8 ROE, and the effects to minimize the impacts
9 of" -- "or effects of regulatory lags.'

10 Q. And it's your testimony that the three-year
11 plan reduces appreciably regulatory lag both for
12 investments and for operating costs; is that correct?

13 A. That is exactly correct. And I believe
14 that's recognized by Moody's and other investors. And
15 it was obviously one of the hallmarks of the position
16 of the Company as it went to the legislature and argued
17 for this -- or lobbied for this legislation.

18 It's the core reason that the companies have
19 to benefit from this, and the customers have to benefit
20 too, the reduction in regulatory expense. I just --
21 you know. And may I extend a little further?

22 Q. Yes.

23 A. That leads into the basis of 20 basis points
24 is that we've got a regulatory lag and ability to

1 better manage costs and expenses as a significant
2 benefit to the Company. We have the reduction in rate
3 case expense as a benefit to the customer. And I did
4 not see those things as equal.

5 And I have to admit my determination of this
6 unequalness is a little arbitrary, and it's based on my
7 informed judgment of 38 years of being called to
8 testify for the Commission. But, nonetheless, I cannot
9 back it up with raw numbers.

10 It's my intuition there needs to be some
11 benefit to the customer. And I felt that 20 basis
12 points was a small number, but it was still significant
13 as a reward to the customers for providing for a future
14 test year that should allow the companies to enhance
15 their recovery of costs and be more attractive from an
16 investor's perspective.

17 Q. Now, Mr. D'Ascendis talks in his testimony
18 about some states that have the multiyear plan, and he
19 mentions California. Have you -- do you know what, if
20 anything, they reduced the ROEs for for the multiyear
21 plan in California?

22 A. I have spoken with people at the -- in
23 consumer -- the operations or regulatory staff in
24 California. There was not an explicit reduction in the

1 ROE for MYRP.

2 The California water companies have a series
3 that are similar to New York in the sense they have a
4 lot of riders, and they insulate them from risk. But
5 that was not an issue in the MYRP because they do --
6 when they do cost of capital, they do a totally
7 separate investigation every three years, I believe.
8 So that was not a factor -- an explicit factor that I
9 have brought to you today.

10 Q. Now, you heard a question about if they come
11 below the ROE and the band, regulatory lag would come
12 back.

13 But isn't it true that the Company could then
14 proceed to file for the WSIC and the SSIC -- that's
15 W-S-I-C and S-S-I-C -- to get the capital projects into
16 rates much quicker than the next rate case? Don't they
17 have that advantage to get back?

18 MR. ALSON: Objection. Leading.

19 COMMISSIONER CLODFELTER: Ask your
20 question again.

21 Q. What -- what can the Company do, other than
22 file a general rate case, to get capital projects back
23 into the rates prior to? Are there mechanisms in
24 North Carolina for them to do that?

1 A. Yes. We -- currently existing on policies,
2 practices exist for the companies to file for a water
3 system investment charge, a WSIC, and a SSIC for the
4 sewer operations so they can recover their capital
5 within a quicker time.

6 Q. Did you collaborate with the other members of
7 the panel in determining the 20-basis-point reduction?

8 A. Yes and no. I mean, I didn't -- I mean, it
9 wasn't a precise conversation. But I consulted with
10 the accounting and the engineering on the nature of the
11 MYIP, so all of that came together.

12 So yes. Yes. But most of the determination
13 came out of -- came from myself, to be honest with you.

14 MR. GRANTMYRE: Thank you. I have no
15 further questions.

16 COMMISSIONER CLODFELTER: All right.
17 Let's see if there are questions from --

18 MR. FREEMAN: Commissioner, I think we
19 have one or two more little questions.

20 COMMISSIONER CLODFELTER: Okay. One or
21 two more little questions.

22 (Pause.)

23 MR. GRANTMYRE: I have no further
24 questions.

1 COMMISSIONER CLODFELTER: Okay.

2 Questions from Commissioners?

3 (No response.)

4 COMMISSIONER CLODFELTER: I have one.

5 And, Mr. Hinton, I will ask it of you to save me
6 from flipping paper. If you don't know, then I'll
7 flip paper later.

8 EXAMINATION BY COMMISSIONER CLODFELTER:

9 Q. Under the proposed joint stipulation and
10 partial settlement, is my recollection correct that if
11 that stipulation settlement is approved that the
12 Company has agreed not to seek to use the WSIC and SSIC
13 mechanism during the beginning of the -- during the
14 duration of the WSIP period whether or not they are
15 earning their required -- or their authorized return on
16 equity or not?

17 A. Will the Commission allow me to consult with
18 my --

19 Q. Well, let me withdraw the question, because I
20 think I've just located it on page 16 of the
21 stipulation. I've answered my own question and I
22 withdraw the question.

23 A. Thank you. Because, to be honest with you, I
24 did not -- I was not involved with the stipulation.

1 Q. Well, I was thinking you would know it off
2 the top of your head quicker than I could find it, but
3 I found it.

4 Any other questions from Commissioners?

5 Commissioner Duffley.

6 EXAMINATION BY COMMISSIONER DUFFLEY:

7 Q. In your joint testimony -- good afternoon.

8 In your joint testimony on page 63 on line
9 16, you have that this Janney's report is Exhibit
10 Number 9?

11 A. Yes.

12 Q. I have it as Exhibit Number 8. Do you need
13 to correct --

14 A. It is a typo.

15 Q. -- correct your -- so it's Exhibit 8 --

16 A. Correct.

17 Q. -- and you're correcting your testimony?

18 And then one other question.

19 Mr. D'Ascendis, in his rebuttal testimony,
20 brought up the article by Thomas Zepp as -- let me find
21 it.

22 A. Could you refer to me to the page where he
23 talks about it?

24 Q. Yes.

1 A. And I'll see if I can recollect that study.
2 But I may not be able to.

3 Q. So on page 32 of his rebuttal testimony.

4 A. (Witness peruses document.)

5 Q. And it's a published study in response to
6 Dr. Wong's article, and I just wondered if you had any
7 comments that you'd like to provide to the Commission
8 regarding the Zepp analysis.

9 If you don't, that's fine. I just wanted to
10 give you the opportunity.

11 A. No. I do not have any --

12 Q. Okay.

13 A. No comments I can give.

14 COMMISSIONER DUFFLEY: Okay. I have
15 nothing further.

16 COMMISSIONER CLODFELTER: Any other
17 Commissioners have questions?

18 (No response.)

19 COMMISSIONER CLODFELTER: All right.
20 Any questions on the Commission's questions?

21 MR. GRANTMYRE: No, sir.

22 MR. ALSON: No, Commissioner, thank you.

23 COMMISSIONER CLODFELTER: Okay. I think
24 that brings us to the end of this single-witness

1 panel. We'll have to create a new -- we have a new
2 construct for what this is.

3 MR. ALSON: Your Honor --

4 COMMISSIONER CLODFELTER: If you're
5 about to speak to Exhibit 6, I'll tell you I'm
6 going to hold Exhibit 6. Any determination of what
7 we do with Exhibit 6, I'm just gonna hold that
8 under advisement until we see if we can work that
9 out.

10 And I think -- do the parties need
11 further instructions about what to do with respect
12 to Exhibit 6 tonight overnight?

13 MS. SANFORD: Well --

14 MR. GRANTMYRE: Chair Clodfelter, we
15 would move that their direct testimonies and
16 exhibits be entered into evidence.

17 COMMISSIONER CLODFELTER: They have
18 already been received --

19 MR. GRANTMYRE: Okay.

20 COMMISSIONER CLODFELTER: -- into
21 evidence.

22 There is, I think, one exhibit we need
23 to deal with. Mr. Alson?

24 MR. ALSON: Thank you, Commissioner

1 Clodfelter.

2 At this point Carolina Water moves into
3 evidence Hinton Proposed Cross Exhibit Number 1.

4 COMMISSIONER CLODFELTER: Any objection?
5 If not, it will be received into evidence --

6 MR. ALSON: Thank you.

7 COMMISSIONER CLODFELTER: -- as so
8 premarked.

9 (CWSNC Hinton Proposed Cross Exhibit
10 Number1 was admitted into evidence.)

11 COMMISSIONER CLODFELTER: Anything
12 further?

13 (No response.)

14 COMMISSIONER CLODFELTER: Okay. We are
15 done for the afternoon, but before we go off the
16 record, let's talk about schedule for tomorrow
17 because it's complicated, and I have to constantly
18 be refreshed about it.

19 Mr. Grantmyre, do we need you for any
20 other witnesses coming up tomorrow morning?

21 MR. GRANTMYRE: No, sir.

22 COMMISSIONER CLODFELTER: Okay. So
23 we're free -- we're good to go and -- even though
24 you won't be with us tomorrow morning. We wish you

1 well.

2 MR. GRANTMYRE: Thank you.

3 COMMISSIONER CLODFELTER: All right.
4 Starting time, folks. In my former career, we
5 would have started at an hour that you wouldn't
6 accept.

7 So, Madam Court Reporter, what's your
8 preferred starting time? Could we start as early
9 as 9:00?

10 COURT REPORTER: 9:00 Works.

11 COMMISSIONER CLODFELTER: 9:00? Going
12 once. All right. We will resume at 9 a.m.
13 tomorrow morning. Thank you.

14 I was also looking to see if any of my
15 colleagues have objections.

16 Okay? Sounds good.

17 (The hearing was adjourned at 5:31 p.m.
18 and set to reconvene at 9:00 a.m. on
19 Tuesday, November 29, 2022.)

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CERTIFICATE OF REPORTER

STATE OF NORTH CAROLINA)
COUNTY OF WAKE)

I, Joann Bunze, RPR, the officer before whom the foregoing hearing was conducted, do hereby certify that any witnesses whose testimony may appear in the foregoing hearing were duly sworn; that the foregoing proceedings were taken by me to the best of my ability and thereafter reduced to typewritten format under my direction; that I am neither counsel for, related to, nor employed by any of the parties to the action in which this hearing was taken, and further that I am not a relative or employee of any attorney or counsel employed by the parties thereto, nor financially or otherwise interested in the outcome of the action.

This the 30th day of November, 2022.

Joann Bunze

JOANN BUNZE, RPR

Notary Public #200707300112

