

Part 2

INFORMATION SHEET

PRESIDING: Commissioner Daniel E. Clodfelter, Presiding; Chair Charlotte A. Mitchell; Commissioners Brown-Bland, Duffley, Hughes, McKissick, Jr., and Kemerait

PLACE: Dobbs Building, Raleigh, North Carolina

DATE: November 28, 2022

TIME: 2:05 p.m. to 5:31 p.m.

DOCKET NO.: W-354, Sub 400

COMPANIES: Carolina Water Service, Inc. of North Carolina

DESCRIPTION: In the Matter of Carolina Water Service, Inc. of North Carolina, 4944 Parkway Plaza Boulevard, Suite 375, Charlotte, North Carolina 28217, for Authority to Adjust and Increase Rates for Water and Sewer Utility Service in All of Its Service Areas in North Carolina and for Approval of a Water and Sewer Investment Plan

VOLUME NUMBER: 6

APPEARANCES

See attached

WITNESSES

See attached

EXHIBITS

See attached exhibits

REPORTED BY: Joann Bunze
TRANSCRIBED BY: Joann Bunze
DATE FILED: December 1, 2022

TRANSCRIPT PAGES: 177
PREFILED PAGES: 386
TOTAL PAGES: 489

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

1 A P P E A R A N C E S:

2 FOR CAROLINA WATER SERVICE, INC. OF NORTH CAROLINA:

3 Jo Anne Sanford, Esq.

4 Sanford Law Office, PLLC

5 721 North Bloodworth Street

6 Raleigh, North Carolina 27604

7
8 Mark R. Alson, Esq.

9 Ice Miller LLP

10 One American Square, Suite 2900

11 Indianapolis, Indiana 46282-0200

12
13 FOR THE USING AND CONSUMING PUBLIC:

14 Gina Holt, Esq.

15 John D. Little, Esq.

16 William Freeman, Esq.

17 William Grantmyre, Esq.

18 Reita Coxton, Esq.

19 Public Staff - North Carolina Utilities Commission

20 4326 Mail Service Center

21 Raleigh, North Carolina 27699-4300

22

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T A B L E O F C O N T E N T S
E X A M I N A T I O N S

	PAGE
Prefiled Direct Testimony of Philip J. Drennan	19
Prefiled Direct Testimony of Dana Hill.....	51
DYLAN D'ASCENDIS	PAGE
Prefiled Direct Testimony of Dylan D'Ascendis	76
Prefiled Direct Summary Dylan D'Ascendis.....	158
Prefiled Rebuttal Testimony Dylan D'Ascendis...	160
Prefiled Rebuttal Summary of Dylan D'Ascendis	204
Direct Examination By Mr. Alson.....	208
Cross Examination By Mr. Freeman.....	208
Redirect Examination By Mr. Alson.....	292
PANEL OF	PAGE
JOHN R. HINTON, CHARLES JUNIS, AND FENGGE ZHANG	
Prefiled Direct Testimony and Appendices A and B of John R. Hinton	313
Prefiled Summary of John R. Hinton.....	360
Prefiled Joint Testimony of John R. Hinton, ... Charles Junis, Kuei Fen Sun, and Fenge Zhang and Appendices A Through D	361
Redirect Examination By Mr. Grantmyre.....	438
Cross Examination By Mr. Alson.....	442
Cross Examination By Ms. Sanford.....	467

1	Direct Examination By Mr. Grantmyre.....	470
2	Examination By Commissioner Clodfelter.....	483
3	Examination By Commissioner Duffley.....	484
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		

E X H I B I T S

IDENTIFIED/ADMITTED

1		
2		
3	Joint Partial Settlement Agreement ...	-/14
4	and Stipulation	
5	CWSNC Application and Appendix 1.....	-/15
6	CWSNC Application and Appendices	-/15
7	2 - 14	
8	CWSNC Application, Part I - Items	-/15
9	W1-1 to W1-9; Part II - Items	
10	W1-10; Part III - Items W1-11 to	
11	W1-24; Part IV - Items W1-25;	
12	Part V - Items W1-26; Part VI	
13	Items W1-28; Confidential	
14	Part VII - Items W1-3(b), W1-4(b),	
15	W1-13a(2), W1-16, W1-17, and W1-24	
16	CWSNC Supplemental Application	-/15
17	Appendix 15, Schedules A, B, and E	
18	CWSNC Schedule A-1a through A-15a, ...	-/15
19	and A-1b through A-15b	
20	CWSNC Schedule B-1a through B-26a, ...	-/15
21	and B-1b through B-26b	
22	CWSNC Schedule D-1a through D-4a,	-/15
23	And D-1b through D-4b	
24	CWSNC W1-10.....	-/15
	CWSNC D'Ascendis Exhibit 1.....	74/74
	CWSNC D'Ascendis Appendix A.....	74/74
	CWSNC D'Ascendis Rebuttal Exhibit 1...	74/74
	Public Staff D'Ascendis Proposed	213/309
	Cross Exhibit Number 11	
	Public Staff D'Ascendis Proposed	220/309
	Cross Exhibit Number 10	

1 Public Staff D'Ascendis Proposed 221/309
Cross Exhibit Number 12

2 Public Staff D'Ascendis Proposed 225/309
3 Cross Exhibit Number 4

4 Public Staff D'Ascendis Proposed 229/309
Cross Exhibit Number 2

5 Public Staff D'Ascendis Proposed 235/309
6 Cross Exhibit Number 5

7 Public Staff D'Ascendis Proposed 248/-
Cross Exhibit Number 6

8 Public Staff D'Ascendis Proposed 260/309
9 Cross Exhibit Number 9

10 Public Staff D'Ascendis Proposed 263/309
Cross Exhibit Number 8

11 Public Staff D'Ascendis Proposed 266/309
12 Cross Exhibit Number 17

13 Public Staff D'Ascendis Proposed 269/309
Cross Exhibit Number 18

14 Public Staff D'Ascendis Proposed 271/309
15 Cross Exhibit Number 19

16 Public Staff D'Ascendis Proposed 273/309
Cross Exhibit Number 20

17 Public Staff D'Ascendis Proposed 279/309
18 Cross Exhibit Number 1

19 Public Staff D'Ascendis Proposed 279/309
Cross Exhibit Number 16

20 Public Staff D'Ascendis Proposed 284/309
21 Cross Exhibit Number 3

22 Public Staff D'Ascendis Proposed 288/309
Cross Exhibit Number 15

23 Public Staff D'Ascendis Proposed 290/309
24 Cross Exhibit Number 13

1	Confidential Public Staff	298/309
2	D'Ascendis Proposed Cross Exhibit	
3	Number 7	
4	Public Staff Hinton Exhibits 1	312/312
5	through 6	
6	CWSNC Hinton Proposed Cross	518/487
7	Exhibit Number 1	
8	Public Staff WSIP Exhibits 1	312/312
9	through 3	
10		
11		
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NORTH CAROLINA UTILITIES COMMISSION
APPEARANCE SLIP

DATE: 11-28-22 DOCKET NO.: W-354 Sub 400
ATTORNEY NAME and TITLE: Jo Anne Sanford

FIRM NAME: Sanford Law Office
ADDRESS: PO Box 28050
CITY: Raleigh STATE: N.C. ZIP CODE: 27611-8085

APPEARANCE ON BEHALF OF: Carolina Water Service, Inc.
of N.C.

APPLICANT: ☒ COMPLAINANT: ___ INTERVENOR: ___
PROTESTANT: ___ RESPONDENT: ___ DEFENDANT: ___

Non-confidential transcripts are located on the Commission's website. To view and/or print transcripts, go to <https://www.ncuc.net/>, hover over the Dockets tab, select Docket Search, enter the docket number, and click search, select the highlighted docket number and select Documents for a list of all documents filed.

ONLY fill out this portion if you have signed an NDA to receive **CONFIDENTIAL** transcripts and/or exhibits:

☒ Yes, I have signed the Confidentiality Agreement.

Email: sanford@sanfordlawoffice.com

SIGNATURE: Jo Anne Sanford

(Signature Required for distribution of **CONFIDENTIAL** information)

**NORTH CAROLINA UTILITIES COMMISSION
APPEARANCE SLIP**

DATE: 11-28-2022 DOCKET NO.: W-354 Sub 400
ATTORNEY NAME and TITLE: Mark R. Alson, pro hac vice

FIRM NAME: Ice Miller LLP
ADDRESS: One American Square Suite 2900
CITY: Indianapolis STATE: IN ZIP CODE: 46282

APPEARANCE ON BEHALF OF: Carolina Water Service, Inc. of North Carolina

APPLICANT: ☒ COMPLAINANT: ___ INTERVENOR: ___
PROTESTANT: ___ RESPONDENT: ___ DEFENDANT: ___

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NORTH CAROLINA UTILITIES COMMISSION
PUBLIC STAFF - APPEARANCE SLIP

DATE: November 28, 2022

DOCKET #: W-354, Sub 400

PUBLIC STAFF ATTORNEYS: Gina Holt
 John Little
 William Grantmyre
 William Freeman
 Reita Coxton

TO REQUEST A **CONFIDENTIAL** TRANSCRIPT, PLEASE PROVIDE YOUR
EMAIL ADDRESS BELOW:

ACCOUNTING _____
CONSUMER SERVICES _____
COMMUNICATIONS _____
ENERGY _____
ECONOMICS _____
LEGAL: william.freeman@psucnc.nc.gov
 gina.holt@psncuc.nc.gov
 john.little@psncuc.nc.gov
 william.grantmyre@psncuc.nc.gov
 reita.coxton@psncuc.nc.gov
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WHO HAS SIGNED A CONFIDENTIALITY AGREEMENT WILL NEED TO
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/s/ John D. Little

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Dec 05 2022

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Schedule B: Supporting Schedules
Bradfield Farms - Fairfield Harbour - Treasure Cove

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule B-1b
Updated 09/19/2022

Water
Operating Revenues
Bradfield Farms - Fairfield Harbour - Treasure Cove

Operating Revenues					Base Case	Base Case	WSIP	WSIP	WSIP	WSIP	WSIP	WSIP	
Line No.	Account	Description	Total Per Books	Pro-Forma Adjustment	Historical Test Year as adjusted	Proposed Increase	Total After Increase	Rate Year 1 Adjustments	Rate Year 1 Revenue Requirement	Rate Year 2 Adjustments	Rate Year 2 Revenue Requirement	Rate Year 3 Adjustments	Rate Year 3 Revenue Requirement
			[A]	[B]	[C] =[A]+[B]	[D]	[E] =[C]+[D]	[F]	[G] =[C]+[F]	[H]	[I] =[G]+[H]	[J]	[K] =[I]+[J]
1	Service Revenue		1,432,401.12	448,710.54	[14]	1,881,111.66	212,196.34	2,093,308.00	571,596.34	238,519.00	2,691,227.00	179,601.00	2,870,828.00
2	Miscellaneous Revenue		7,860.60			7,860.60	7,860.60	-	7,860.60	-	7,860.60	-	7,860.60
3	Forfeited Discounts		(30.18)	30.18	[16]	5,965.93	5,965.93	6,990.22	6,990.22	679.78	7,670.00	511.86	8,181.86
4	Uncollectible Accounts		(49,144.86)	19,605.01	[15]	(29,539.85)	(3,332.20)	(32,872.05)	(38,515.86)	(3,745.56)	(42,261.41)	(2,820.35)	(45,081.76)
5	Total Operating Revenues - Water		1,391,086.69	468,345.73		1,859,432.42	214,830.06	2,074,262.48	569,610.55	235,453.22	2,664,496.19	177,292.52	2,841,788.70

Sewer
Operating Revenues
Bradfield Farms - Fairfield Harbour - Treasure Cove

Operating Revenues						Base Case	Base Case	WSIP	WSIP	WSIP	WSIP	WSIP	WSIP
Line No.	Account	Description	Total Per Books	Pro-Forma Adjustment	Historical Test Year as adjusted	Proposed Increase	Total After Increase	Rate Year 1 Adjustments	Rate Year 1 Revenue Requirement	Rate Year 2 Adjustments	Rate Year 2 Revenue Requirement	Rate Year 3 Adjustments	Rate Year 3 Revenue Requirement
			[A]	[B]	[C] =[A]+[B]	[D]	[E] =[C]+[D]	[F]	[G] =[C]+[F]	[H]	[I] =[G]+[H]	[J]	[K] =[I]+[J]
6	Service Revenue		2,280,093.27	353,560.35	[14]	2,633,653.62	336,994.38	593,570.38	3,227,224.00	639,266.00	3,866,490.00	430,920.00	4,297,410.00
7	Miscellaneous Revenue		12,471.26	-		12,471.26	12,471.26	-	12,471.26	-	12,471.26	-	12,471.26
8	Forfeited Discounts		(47.87)	47.87	[16]	-	7,218.67	7,842.15	7,842.15	1,553.42	9,395.57	1,047.14	10,442.71
9	Uncollectible Accounts		(9,153.93)	(32,203.39)	[15]	(41,357.32)	(5,291.96)	(46,649.27)	(50,678.39)	(10,038.65)	(60,717.04)	(6,766.91)	(67,483.95)
10	Total Operating Revenues - Sewer		2,283,362.73	321,404.83		2,604,767.56	338,921.10	592,091.46	3,196,859.02	630,780.77	3,827,639.79	425,200.23	4,252,840.01

Operating Revenues

Column Calculations:

[A]- Company's total booked amounts for test year ended March 31, 2022
[B]- Amounts calculated based on Company's supporting schedules
[C]- Sum of Columns [A] & [B]
[D]- Base Case Proposed Increase calculated based on Company's supporting schedules
[E]- Sum of Columns [C] & [D]
[F]- WSIP Rate Year 1 Adjustments calculated based on Company's supporting schedules
[G]- Sum of Columns [C] & [F]
[H]- WSIP Rate Year 2 Adjustments calculated based on Company's supporting schedules
[I]- Sum of Columns [G] & [H]
[J]- WSIP Rate Year 3 Adjustments calculated based on Company's supporting schedules
[K]- Sum of Columns [I] & [J]

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule B-2b
Updated 09/19/2022

Uncollectible Accounts Bradfield Farms - Fairfield Harbour - Treasure Cove

Line No.	Description	Water [A]	Sewer [B]	Total [C]
<u>Test Year</u>				
1	Test Year / Present Service Revenues	1,432,401.12	2,280,093.27	3,712,494.39
2	Per Books Uncollectible Accounts	\$ (49,145)	\$ (9,154)	\$ (58,299)
3	Uncollectible % (L2/L1)	-3.43%	-0.40%	-1.57%
<u>Present Rate</u>				
4	Present Rate Proposed Service Revenues	1,881,111.66	2,633,653.62	
5	Present Rate Uncollectible % (L3)	-1.57%	-1.57%	
6	Present Rate Uncollectible Accounts (L4*L5)	\$ (29,540)	\$ (41,357)	\$ (70,897)
<u>Base Case</u>				
7	Base Case Proposed Service Revenues	2,093,308.00	2,970,648.00	
8	Base Case Uncollectible % (L3)	-1.57%	-1.57%	
9	Base Case Uncollectible Accounts (L7*L8)	\$ (32,872)	\$ (46,649)	\$ (79,521)
<u>WSIP Year 1</u>				
10	WSIP Year 1 Proposed Service Revenues	2,452,708.00	3,227,224.00	
11	WSIP Year 1 Uncollectible % (L3)	-1.57%	-1.57%	
12	WSIP Year 1 Uncollectible Accounts (L10*L11)	\$ (38,516)	\$ (50,678)	\$ (89,194)
<u>WSIP Year 2</u>				
13	WSIP Year 2 Proposed Service Revenues	2,691,227.00	3,866,490.00	
14	WSIP Year 2 Uncollectible % (L3)	-1.57%	-1.57%	
15	WSIP Year 2 Uncollectible Accounts (L13*L14)	\$ (42,261)	\$ (60,717)	\$ (102,978)
<u>WSIP Year 3</u>				
16	WSIP Year 3 Base Case Proposed Service Revenues	2,870,828.00	4,297,410.00	
17	WSIP Year 3 Uncollectible % (L3)	-1.57%	-1.57%	
18	WSIP Year 3 Uncollectible Accounts (L16*L17)	\$ (45,082)	\$ (67,484)	\$ (112,566)

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule B-3b
Updated 09/19/2022

Forfeited Discounts

Bradfield Farms - Fairfield Harbour - Treasure Cove

Line No.	Description	Water [A]	Sewer [B]	Total [C]
Test Year				
1	Test Year Service Revenues	1,432,401.12	2,280,093.27	3,712,494.39
2	Per Books Forfeited Discounts	\$ (30)	\$ (48)	\$ (78)
3	Forfeited Discounts % (L2/L1)	0.00%	0.00%	
Present Rate				
4	Present Rate Service Revenues as Adjusted	1,881,111.66	2,633,653.62	
5	Present Rate Forfeited Discounts % (L3)	0.000%	0.000%	
6	Present Rate Forfeited Discounts Accounts (L4*L5)	\$ -	\$ -	\$ -
7	Present Rate Forfeited Discounts Adjustment (L6-L2)	\$ 30	\$ 48	\$ 78
Base Case				
8	Base Case Proposed Service Revenues	2,093,308.00	2,970,648.00	
9	Base Case Forfeited Discounts % (Note 1)	0.285%	0.243%	
10	Base Case Forfeited Discounts Accounts (L8*L9)	\$ 5,966	\$ 7,219	\$ 13,185
11	Base Case Forfeited Discounts Adjustment (L10-L6)	\$ 5,966	\$ 7,219	\$ 13,185
WSIP Year 1				
12	WSIP Year 1 Proposed Service Revenues	2,452,708.00	3,227,224.00	
13	WSIP Year 1 Forfeited Discounts % (Note 1)	0.285%	0.243%	
14	WSIP Year 1 Forfeited Discounts Accounts (L12*L13)	\$ 6,990	\$ 7,842	\$ 14,832
15	WSIP Year 1 Forfeited Discounts Adjustment (L14-L10)	\$ 1,024	\$ 623	\$ 1,648
WSIP Year 2				
16	WSIP Year 2 Proposed Service Revenues	2,691,227.00	3,866,490.00	
17	WSIP Year 2 Forfeited Discounts % (Note 1)	0.285%	0.243%	
18	WSIP Year 2 Forfeited Discounts Accounts (L16*L17)	\$ 7,670	\$ 9,396	\$ 17,066
19	WSIP Year 2 Forfeited Discounts Adjustment (L18-L14)	\$ 680	\$ 1,553	\$ 2,233
WSIP Year 3				
20	WSIP Year 3 Base Case Proposed Service Revenues	2,870,828.00	4,297,410.00	
21	WSIP Year 3 Forfeited Discounts % (Note 1)	0.285%	0.243%	
22	WSIP Year 3 Forfeited Discounts Accounts (L20*L21)	\$ 8,182	\$ 10,443	\$ 18,625
23	WSIP Year 3 Forfeited Discounts Adjustment (L22-L18)	\$ 512	\$ 1,047	\$ 1,559

Notes:

[1] - Three Year Average forfeited discount rate (2017, 2018, 2019) as used in Sub 384.

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule B-4b
Updated 09/19/2022

Water			Bradfield Farms - Fairfield Harbour - Treasure Cove									
Purchase Power												
Line						Base Case	Base Case	WSIP	WSIP	WSIP	WSIP	WSIP
No.	Account	Description	Total Per Books	Pro-Forma	Historical Test	Proposed	Total After	Rate Year 1	Rate Year 1	Rate Year 2	Rate Year 2	Rate Year 3
			[A]	Adjustment	Year as adjusted	Increase	Increase	Adjustments	Revenue	Adjustments	Revenue	Adjustments
				[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]
					=[A]+[B]		=[C]+[D]		=[C]+[F]		=[G]+[H]	
1	517001	Utility-Electric Power	70,431.67		70,431.67		70,431.67	6,874.81	77,306.48	2,523.07	79,829.56	2,605.42
2												
3		Total Purchase Power - Water	70,431.67	-	70,431.67	-	70,431.67	6,874.81	77,306.48	2,523.07	79,829.56	2,605.42

Sewer			Bradfield Farms - Fairfield Harbour - Treasure Cove									
Purchase Power												
Line						Base Case	Base Case	WSIP	WSIP	WSIP	WSIP	WSIP
No.	Account	Description	Total Per Books	Pro-Forma	Historical Test	Proposed	Total After	Rate Year 1	Rate Year 1	Rate Year 2	Rate Year 2	Rate Year 3
			[A]	Adjustment	Year as adjusted	Increase	Increase	Adjustments	Revenue	Adjustments	Revenue	Adjustments
				[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]
					=[A]+[B]		=[C]+[D]		=[C]+[F]		=[G]+[H]	
4	517001	Utility-Electric Power	149,603.88		149,603.88		149,603.88	15,105.71	164,709.59	6,413.19	171,122.78	6,662.90
5												
6		Total Purchase Power - Sewer	149,603.88	-	149,603.88	-	149,603.88	15,105.71	164,709.59	6,413.19	171,122.78	6,662.90

Purchase Power

Column Calculations:
[A]- Company's total booked amounts for test year ended March 31, 2022
[B]- Amounts calculated based on Company's supporting schedules
[C]- Sum of Columns [A] & [B]
[D]- Base Case Proposed Increase calculated based on Company's supporting schedules
[E]- Sum of Columns [C] & [D]
[F]- WSIP Rate Year 1 Adjustments calculated based on Company's supporting schedules
[G]- Sum of Columns [C] & [F]
[H]- WSIP Rate Year 2 Adjustments calculated based on Company's supporting schedules
[I]- Sum of Columns [G] & [H]
[J]- WSIP Rate Year 3 Adjustments calculated based on Company's supporting schedules
[K]- Sum of Columns [I] & [J]

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule B-5b
Updated 09/19/2022

Water		Bradfield Farms - Fairfield Harbour - Treasure Cove									
Purchased Water & Sewer											
Line					Base Case	Base Case	WSIP	WSIP	WSIP	WSIP	WSIP
No.	Account	Description	Total Per Books	Pro-Forma	Historical Test	Proposed	Total After	Rate Year 1	Rate Year 1	Rate Year 2	Rate Year 2
			[A]	Adjustment	Year as adjusted	Increase	Increase	Adjustments	Revenue	Adjustments	Revenue
				[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]
					=[A]+[B]		=[C]+[D]		=[C]+[F]		=[G]+[H]
1	511001	Purchased Services-Water	608.77		608.77		608.77	-	608.77	-	608.77
2		Total Purchased Water & Sewer - Water	608.77	-	608.77	-	608.77	-	608.77	-	608.77

Sewer		Bradfield Farms - Fairfield Harbour - Treasure Cove									
Purchased Water & Sewer											
Line					Base Case	Base Case	WSIP	WSIP	WSIP	WSIP	WSIP
No.	Account	Description	Total Per Books	Pro-Forma	Historical Test	Proposed	Total After	Rate Year 1	Rate Year 1	Rate Year 2	Rate Year 2
			[A]	Adjustment	Year as adjusted	Increase	Increase	Adjustments	Revenue	Adjustments	Revenue
				[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]
					=[A]+[B]		=[C]+[D]		=[C]+[F]		=[G]+[H]
3	511002	Purchased Services-Sewer	-		-		-	-	-	-	-
4		Total Purchased Water & Sewer - Sewer	-	-	-	-	-	-	-	-	-

Purchased Water & Sewer

Column Calculations:
[A]- Company's total booked amounts for test year ended March 31, 2022
[B]- Amounts calculated based on Company's supporting schedules
[C]- Sum of Columns [A] & [B]
[D]- Base Case Proposed Increase calculated based on Company's supporting schedules
[E]- Sum of Columns [C] & [D]
[F]- WSIP Rate Year 1 Adjustments calculated based on Company's supporting schedules
[G]- Sum of Columns [C] & [F]
[H]- WSIP Rate Year 2 Adjustments calculated based on Company's supporting schedules
[I]- Sum of Columns [G] & [H]
[J]- WSIP Rate Year 3 Adjustments calculated based on Company's supporting schedules
[K]- Sum of Columns [I] & [J]

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule B-6b
Updated 09/19/2022

Water
Maintenance & Repair
Bradfield Farms - Fairfield Harbour - Treasure Cove

Maintenance & Repair						Base Case	Base Case	WSIP	WSIP	WSIP	WSIP	WSIP	WSIP	WSIP
Line No.	Account	Description	Total Per Books	Pro-Forma Adjustment	Historical Test Year as adjusted	Proposed Increase	Total After Increase	Rate Year 1 Adjustments	Rate Year 1 Revenue Requirement	Rate Year 2 Adjustments	Rate Year 2 Revenue Requirement	Rate Year 3 Adjustments	Rate Year 3 Revenue Requirement	Rate Year 3 Revenue Requirement
			[A]	[B]	[C] =[A]+[B]	[D]	[E] =[C]+[D]	[F]	[G] =[C]+[F]	[H]	[I] =[G]+[H]	[J]	[K] =[I]+[J]	
1	512001	Shop Supplies and Tools	2,446.61		2,446.61		2,446.61	238.81	2,685.42	87.64	2,773.07	90.51	2,863.57	
2	512002	Repairs and Maintenance	142,999.52		142,999.52		142,999.52	13,958.13	156,957.65	5,122.67	162,080.33	5,289.86	167,370.19	
3	512003	Main Breaks	415.47		415.47		415.47	40.55	456.02	14.88	470.91	15.37	486.28	
4	512004	Traps Repair	-		-		-	-	-	-	-	-	-	
5	512005	Valve Repair	16.69		16.69		16.69	1.63	18.32	0.60	18.92	0.62	19.53	
6	512006	Manhole Maint	-		-		-	-	-	-	-	-	-	
7	512007	Major Repairs	-		-		-	-	-	-	-	-	-	
8	512008	Maintenance Electric Equip Repair	1,868.09		1,868.09		1,868.09	182.34	2,050.43	66.92	2,117.35	69.10	2,186.46	
9	512009	Permits	4,322.94		4,322.94		4,322.94	421.96	4,744.90	154.86	4,899.76	159.91	5,059.68	
10	512010	Sewer Rodding	(21,799.62)		(21,799.62)		(21,799.62)	(2,127.85)	(23,927.47)	(780.93)	(24,708.40)	(806.42)	(25,514.82)	
11	512011	Sewer Sludge Hauling	-		-		-	-	-	-	-	-	-	
12	512013	Excavation Restoration	107.62		107.62		107.62	10.50	118.12	3.86	121.98	3.98	125.96	
13	512014	Communication Expense	3,453.98		3,453.98		3,453.98	337.14	3,791.12	123.73	3,914.85	127.77	4,042.62	
14	512015	Equipment Rental	257.62		257.62		257.62	25.15	282.77	9.23	291.99	9.53	301.52	
15	512016	Uniforms	2,034.77		2,034.77		2,034.77	198.61	2,233.38	72.89	2,306.27	75.27	2,381.55	
16	512017	Weather/Hurricane/Fuel/Snow removal	675.75		675.75		675.75	65.96	741.71	24.21	765.92	25.00	790.91	
17	512018	Safety Supplies/Expense	540.04		540.04		540.04	52.71	592.75	19.35	612.10	19.98	632.07	
18	512019	Moving Expense	-		-		-	-	-	-	-	-	-	
19	512020	Service Claims	-		-		-	-	-	-	-	-	-	
20	512021	Landscaping	18,677.48		18,677.48		18,677.48	1,823.10	20,500.58	669.08	21,169.67	690.92	21,860.59	
21	512022	Other Contracted Workers	81.75		81.75		81.75	7.98	89.73	2.93	92.66	3.02	95.68	
22	512023	Pump Station R&M	-		-		-	-	-	-	-	-	-	
23	512024	Project Labor Hours (COGS)	-		-		-	-	-	-	-	-	-	
24	512025	Vehicle Labor Hours (COGS)	-		-		-	-	-	-	-	-	-	
25	512900	Other Plant and System Maintenance	12,193.77		12,193.77		12,193.77	1,190.23	13,383.99	436.82	13,820.81	451.07	14,271.89	
26		Total Maintenance and Repair	168,292.47	-	168,292.47	-	168,292.47	16,426.97	184,719.44	6,028.74	190,748.19	6,225.51	196,973.69	
27	513001	Allocated Fuel Charge	-		-		-	-	-	-	-	-	-	
28	513002	Meter Supplies	-		-		-	-	-	-	-	-	-	
29	513003	Pipe, Plate, Gasket	-		-		-	-	-	-	-	-	-	
30	513004	Misc Bearing	-		-		-	-	-	-	-	-	-	
31	513005	Lubricant, Gases	-		-		-	-	-	-	-	-	-	
32	513006	Misc Gge Glass, Parts	-		-		-	-	-	-	-	-	-	
33	513007	Rig Equip	26.81		26.81		26.81	2.62	29.43	0.96	30.39	0.99	31.38	
34	513008	Electrical Equip	185.93		185.93		185.93	18.15	204.08	6.66	210.74	6.88	217.62	
35	513009	Lighting Supplies	-		-		-	-	-	-	-	-	-	
36	513010	Plant Air System	33.75		33.75		33.75	3.29	37.04	1.21	38.25	1.25	39.50	
37	513011	Valves and Traps	-		-		-	-	-	-	-	-	-	
38	513012	Duty and Brokerage	-		-		-	-	-	-	-	-	-	
39	513899	Materials and Supplies Write-off	-		-		-	-	-	-	-	-	-	
40	513900	Other Materials and Supplies	12,450.54		12,450.54		12,450.54	1,215.29	13,665.83	446.02	14,111.84	460.57	14,572.42	
41		Total Materials and Supplies	12,697.03	-	12,697.03	-	12,697.03	1,239.35	13,936.38	454.85	14,391.22	469.69	14,860.92	
42	512012	Deferred Maintenance Expense	15,913.72	(1,702.75) [13]	14,210.97		14,210.97	7,738.00 [13]	21,948.97	(4,149.51) [13]	17,799.46	(2,963.93) [13]	14,835.53	
43		Total Deferred Maintenance	15,913.72	(1,702.75)	14,210.97	-	14,210.97	7,738.00	21,948.97	(4,149.51)	17,799.46	(2,963.93)	14,835.53	
44		Total Maintenance & Repair - Water	196,903.22	(1,702.75)	195,200.47	-	195,200.47	25,404.32	220,604.79	2,334.08	222,938.87	3,731.27	226,670.14	

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule B-6b
Updated 09/19/2022

Sewer
Maintenance & Repair
Bradfield Farms - Fairfield Harbour - Treasure Cove

Line No.	Account	Description	Total Per Books [A]	Pro-Forma Adjustment [B]	Historical Test Year as adjusted [C] =[A]+[B]	Proposed Increase [D]	Base Case Total After Increase [E] =[C]+[D]	WSIP Rate Year 1 Adjustments [F]	WSIP Rate Year 1 Revenue Requirement [G] =[C]+[F]	WSIP Rate Year 2 Adjustments [H]	WSIP Rate Year 2 Revenue Requirement [I] =[G]+[H]	WSIP Rate Year 3 Adjustments [J]	WSIP Rate Year 3 Revenue Requirement [K] =[I]+[J]
45	512001	Shop Supplies and Tools	1,697.19		1,697.19		1,697.19	171.37	1,868.56	72.75	1,941.31	75.59	2,016.90
46	512002	Repairs and Maintenance	34,476.70		34,476.70		34,476.70	3,481.16	37,957.86	1,477.94	39,435.80	1,535.49	40,971.29
47	512003	Main Breaks	240.31		240.31		240.31	24.26	264.57	10.30	274.88	10.70	285.58
48	512004	Traps Repair	-		-		-	-	-	-	-	-	-
49	512005	Valve Repair	16.99		16.99		16.99	1.72	18.71	0.73	19.43	0.76	20.19
50	512006	Manhole Maint	35.82		35.82		35.82	3.62	39.44	1.54	40.97	1.60	42.57
51	512007	Major Repairs	-		-		-	-	-	-	-	-	-
52	512008	Maintenance Electric Equip Repair	2,686.43		2,686.43		2,686.43	271.25	2,957.68	115.16	3,072.84	119.65	3,192.49
53	512009	Permits	7,105.60		7,105.60		7,105.60	717.46	7,823.06	304.60	8,127.66	316.46	8,444.13
54	512010	Sewer Rodding	30,298.44		30,298.44		30,298.44	3,059.28	33,357.72	1,298.83	34,656.54	1,349.40	36,005.94
55	512011	Sewer Sludge Hauling	90,677.27		90,677.27		90,677.27	9,155.81	99,833.08	3,887.14	103,720.22	4,038.49	107,758.70
56	512013	Excavation Restoration	3.99		3.99		3.99	0.40	4.39	0.17	4.56	0.18	4.74
57	512014	Communication Expense	3,778.33		3,778.33		3,778.33	381.50	4,159.83	161.97	4,321.80	168.28	4,490.08
58	512015	Equipment Rental	262.79		262.79		262.79	26.53	289.32	11.27	300.59	11.70	312.29
59	512016	Uniforms	1,071.99		1,071.99		1,071.99	108.24	1,180.23	45.95	1,226.18	47.74	1,273.93
60	512017	Weather/Hurricane/Fuel/Snow removal	5,366.67		5,366.67		5,366.67	541.88	5,908.55	230.06	6,138.61	239.01	6,377.62
61	512018	Safety Supplies/Expense	529.02		529.02		529.02	53.42	582.43	22.68	605.11	23.56	628.67
62	512019	Moving Expense	-		-		-	-	-	-	-	-	-
63	512020	Service Claims	-		-		-	-	-	-	-	-	-
64	512021	Landscaping	8,262.24		8,262.24		8,262.24	834.25	9,096.49	354.18	9,450.67	367.97	9,818.65
65	512022	Other Contracted Workers	83.45		83.45		83.45	8.43	91.88	3.58	95.45	3.72	99.17
66	512023	Pump Station R&M	-		-		-	-	-	-	-	-	-
67	512024	Project Labor Hours (COGS)	-		-		-	-	-	-	-	-	-
68	512025	Vehicle Labor Hours (COGS)	-		-		-	-	-	-	-	-	-
69	512900	Other Plant and System Maintenance	6,955.35		6,955.35		6,955.35	702.29	7,657.65	298.16	7,955.81	309.77	8,265.58
70		Total Maintenance and Repair	193,548.38	-	193,548.38	-	193,548.38	19,542.87	213,091.45	8,297.00	221,388.46	8,620.06	230,008.51
71	513001	Allocated Fuel Charge	-		-		-	-	-	-	-	-	-
72	513002	Meter Supplies	-		-		-	-	-	-	-	-	-
73	513003	Pipe, Plate, Gasket	-		-		-	-	-	-	-	-	-
74	513004	Misc Bearing	-		-		-	-	-	-	-	-	-
75	513005	Lubricant, Gases	-		-		-	-	-	-	-	-	-
76	513006	Misc Gpe Glass, Parts	-		-		-	-	-	-	-	-	-
77	513007	Rig Equip	27.35		27.35		27.35	2.76	30.11	1.17	31.28	1.22	32.50
78	513008	Electrical Equip	189.29		189.29		189.29	19.11	208.40	8.11	216.52	8.43	224.95
79	513009	Lighting Supplies	-		-		-	-	-	-	-	-	-
80	513010	Plant Air System	34.49		34.49		34.49	3.48	37.97	1.48	39.45	1.54	40.99
81	513011	Valves and Traps	-		-		-	-	-	-	-	-	-
82	513012	Duty and Brokerage	-		-		-	-	-	-	-	-	-
83	513899	Materials and Supplies Write-off	-		-		-	-	-	-	-	-	-
84	513900	Other Materials and Supplies	20,205.62		20,205.62		20,205.62	2,040.19	22,245.81	866.17	23,111.98	899.90	24,011.88
85		Total Materials and Supplies	20,456.75	-	20,456.75	-	20,456.75	2,065.35	22,522.30	876.94	23,399.24	911.08	24,310.32
86	512012	Deferred Maintenance Expense	5,032.46	17,065.88 [13]	22,098.34		22,098.34	(1,619.14) [13]	20,479.20	- [13]	20,479.20	- [13]	20,479.20
87		Total Deferred Maintenance	5,032.46	17,065.88	22,098.34	-	22,098.34	(1,619.14)	20,479.20	-	20,479.20	-	20,479.20
88		Total Maintenance & Repair - Sewer	219,037.79	17,065.88	236,103.67	-	236,103.67	19,989.28	256,092.95	9,173.94	265,266.89	9,531.14	274,798.03

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule B-6b
Updated 09/19/2022

Maintenance & Repair

Column Calculations:
[A]- Company's total booked amounts for test year ended March 31, 2022
[B]- Amounts calculated based on Company's supporting schedules
[C]- Sum of Columns [A] & [B]
[D]- Base Case Proposed Increase calculated based on Company's supporting schedules
[E]- Sum of Columns [C] & [D]
[F]- WSIP Rate Year 1 Adjustments calculated based on Company's supporting schedules
[G]- Sum of Columns [C] & [F]
[H]- WSIP Rate Year 2 Adjustments calculated based on Company's supporting schedules
[I]- Sum of Columns [G] & [H]
[J]- WSIP Rate Year 3 Adjustments calculated based on Company's supporting schedules
[K]- Sum of Columns [I] & [J]

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule B-7b
Updated 09/19/2022

Water
Maintenance Testing
Bradfield Farms - Fairfield Harbour - Treasure Cove

Line No.	Account	Description	Total Per Books	Pro-Forma Adjustment	Historical Test Year as adjusted	Base Case Proposed Increase	Base Case Total After Increase	WSIP Rate Year 1 Adjustments	WSIP Rate Year 1 Revenue Requirement	WSIP Rate Year 2 Adjustments	WSIP Rate Year 2 Revenue Requirement	WSIP Rate Year 3 Adjustments	WSIP Rate Year 3 Revenue Requirement
			[A]	[B]	[C] =[A]+[B]	[D]	[E] =[C]+[D]	[F]	[G] =[C]+[F]	[H]	[I] =[G]+[H]	[J]	[K] =[I]+[J]
1	515001	Laboratory Testing	20,527.83		20,527.83		20,527.83	1,560.12	22,087.95	720.89	22,808.84	744.42	23,553.25
2	515002	Test - Water/Sewer	8,484.38	(19,272.49)	(10,788.11)		(10,788.11)	(819.90)	(11,608.01)	(378.85)	(11,986.86)	(391.22)	(12,378.08)
3	515003	Test - Equipment/Chemical	428.97		428.97		428.97	32.60	461.57	15.06	476.64	15.56	492.19
4	515004	Test - Safe Drinking Water Act	27.22		27.22		27.22	2.07	29.29	0.96	30.24	0.99	31.23
5													
6		Total Maintenance Testing - Water	29,468.40	(19,272.49)	10,195.91	-	10,195.91	774.89	10,970.80	358.06	11,328.86	369.74	11,698.60

Sewer
Maintenance Testing
Bradfield Farms - Fairfield Harbour - Treasure Cove

Line No.	Account	Description	Total Per Books	Pro-Forma Adjustment	Historical Test Year as adjusted	Base Case Proposed Increase	Base Case Total After Increase	WSIP Rate Year 1 Adjustments	WSIP Rate Year 1 Revenue Requirement	WSIP Rate Year 2 Adjustments	WSIP Rate Year 2 Revenue Requirement	WSIP Rate Year 3 Adjustments	WSIP Rate Year 3 Revenue Requirement
			[A]	[B]	[C] =[A]+[B]	[D]	[E] =[C]+[D]	[F]	[G] =[C]+[F]	[H]	[I] =[G]+[H]	[J]	[K] =[I]+[J]
7	515001	Laboratory Testing	(5,762.66)		(5,762.66)		(5,762.66)	(437.96)	(6,200.62)	(241.43)	(6,442.05)	(250.83)	(6,692.88)
8	515002	Test - Water/Sewer	7,264.09	22,174.98	29,439.07		29,439.07	2,237.37	31,676.44	1,233.36	32,909.80	1,281.39	34,191.19
9	515003	Test - Equipment/Chemical	474.49		474.49		474.49	36.06	510.55	19.88	530.43	20.65	551.08
10	515004	Test - Safe Drinking Water Act	27.81		27.81		27.81	2.11	29.92	1.17	31.09	1.21	32.30
11													
12		Total Maintenance Testing - Sewer	2,003.73	22,174.98	24,178.71	-	24,178.71	1,837.58	26,016.29	1,012.98	27,029.27	1,052.42	28,081.69

Maintenance Testing

Column Calculations:

[A]- Company's total booked amounts for test year ended March 31, 2022

[B]- Amounts calculated based on Company's supporting schedules

[C]- Sum of Columns [A] & [B]

[D]- Base Case Proposed Increase calculated based on Company's supporting schedules

[E]- Sum of Columns [C] & [D]

[F]- WSIP Rate Year 1 Adjustments calculated based on Company's supporting schedules

[G]- Sum of Columns [C] & [F]

[H]- WSIP Rate Year 2 Adjustments calculated based on Company's supporting schedules

[I]- Sum of Columns [G] & [H]

[J]- WSIP Rate Year 3 Adjustments calculated based on Company's supporting schedules

[K]- Sum of Columns [I] & [J]

Schedule B-8b
Updated 09/19/2022

Bradfield Farms - Fairfield Harbour - Treasure Cove

Sewer Meter Reading			Bradfield Farms - Fairfield Harbour - Treasure Cove										
Line No.	Account	Description	Total Per Books	Pro-Forma Adjustment	Historical Test Year as adjusted	Base Case Proposed Increase	Base Case Total After Increase	WSIP Rate Year 1 Adjustments	WSIP Rate Year 1 Revenue Requirement	WSIP Rate Year 2 Adjustments	WSIP Rate Year 2 Revenue Requirement	WSIP Rate Year 3 Adjustments	WSIP Rate Year 3 Revenue Requirement
			[A]	[B]	[C] =[A]+[B]	[D]	[E] =[C]+[D]	[F]	[G] =[C]+[F]	[H]	[I] =[G]+[H]	[J]	[K] =[I]+[J]
4	516001	Service - Meter Reading	1,040.97		1,040.97		1,040.97	105.11	1,146.08	44.62	1,190.70	46.36	1,237.06
5													
6		Total Meter Reading - Sewer	1,040.97	-	1,040.97	-	1,040.97	105.11	1,146.08	44.62	1,190.70	46.36	1,237.06

Column Calculations:

Column Calculations:

[A]-	Company's total booked amounts for test year ended March 31, 2022
[B]-	Amounts calculated based on Company's supporting schedules
[C]-	Sum of Columns [A] & [B]
[D]-	Base Case Proposed Increase calculated based on Company's supporting schedules
[E]-	Sum of Columns [C] & [D]
[F]-	WSPR Rate Year 1 Adjustments calculated based on Company's supporting schedules
[G]-	Sum of Columns [C] & [F]
[H]-	WSPR Rate Year 2 Adjustments calculated based on Company's supporting schedules
[I]-	Sum of Columns [G] & [H]
[J]-	WSPR Rate Year 3 Adjustments calculated based on Company's supporting schedules
[K]-	Sum of Columns [I] & [J]

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule B-9b
Updated 09/19/2022

Water
Chemicals
Bradfield Farms - Fairfield Harbour - Treasure Cove

Line No.	Account	Description	Total Per Books [A]	Pro-Forma Adjustment [B]	Historical Test Year as adjusted [C] =[A]+[B]	Base Case Proposed Increase [D]	Base Case Total After Increase [E] =[C]+[D]	WSIP Rate Year 1 Adjustments [F]	WSIP Rate Year 1 Revenue Requirement [G] =[C]+[F]	WSIP Rate Year 2 Adjustments [H]	WSIP Rate Year 2 Revenue Requirement [I] =[G]+[H]	WSIP Rate Year 3 Adjustments [J]	WSIP Rate Year 3 Revenue Requirement [K] =[I]+[J]
1	514001	Chlorine	18,277.07		18,277.07		18,277.07	1,389.06	19,666.13	641.85	20,307.98	662.80	20,970.77
2	514002	Odor Control Chemicals	-		-		-	-	-	-	-	-	-
3	514900	Other Chemicals	44,680.34	23,274.50 [19]	67,954.84		67,954.84	5,164.57	73,119.41	2,386.42	75,505.83	2,464.31	77,970.13
4													
5		Total Chemicals - Water	62,957.41	23,274.50	86,231.91	-	86,231.91	6,553.63	92,785.54	3,028.27	95,813.80	3,127.10	98,940.91

Sewer
Chemicals
Bradfield Farms - Fairfield Harbour - Treasure Cove

Line No.	Account	Description	Total Per Books [A]	Pro-Forma Adjustment [B]	Historical Test Year as adjusted [C] =[A]+[B]	Base Case Proposed Increase [D]	Base Case Total After Increase [E] =[C]+[D]	WSIP Rate Year 1 Adjustments [F]	WSIP Rate Year 1 Revenue Requirement [G] =[C]+[F]	WSIP Rate Year 2 Adjustments [H]	WSIP Rate Year 2 Revenue Requirement [I] =[G]+[H]	WSIP Rate Year 3 Adjustments [J]	WSIP Rate Year 3 Revenue Requirement [K] =[I]+[J]
6	514001	Chlorine	2,283.29		2,283.29		2,283.29	173.53	2,456.82	95.66	2,552.48	99.38	2,651.86
7	514002	Odor Control Chemicals	-		-		-	-	-	-	-	-	-
8	514900	Other Chemicals	51,038.93	14,213.95 [19]	65,252.88		65,252.88	4,959.22	70,212.10	2,733.80	72,945.90	2,840.25	75,786.15
9													
10		Total Chemicals - Sewer	53,322.22	14,213.95	67,536.17	-	67,536.17	5,132.75	72,668.92	2,829.46	75,498.38	2,939.63	78,438.01

Chemicals

Column Calculations:

[A]- Company's total booked amounts for test year ended March 31, 2022

[B]- Amounts calculated based on Company's supporting schedules

[C]- Sum of Columns [A] & [B]

[D]- Base Case Proposed Increase calculated based on Company's supporting schedules

[E]- Sum of Columns [C] & [D]

[F]- WSIP Rate Year 1 Adjustments calculated based on Company's supporting schedules

[G]- Sum of Columns [C] & [F]

[H]- WSIP Rate Year 2 Adjustments calculated based on Company's supporting schedules

[I]- Sum of Columns [G] & [H]

[J]- WSIP Rate Year 3 Adjustments calculated based on Company's supporting schedules

[K]- Sum of Columns [I] & [J]

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule B-10b
Updated 09/19/2022

Water				Bradfield Farms - Fairfield Harbour - Treasure Cove									
Transportation Expense						Base Case	Base Case	WSIP	WSIP	WSIP	WSIP	WSIP	WSIP
Line													
No.	Account	Description	Total Per Books	Pro-Forma	Historical Test	Proposed	Total After	Rate Year 1	Rate Year 1	Rate Year 2	Rate Year 2	Rate Year 3	Rate Year 3
			[A]	Adjustment	Year as adjusted	Increase	Increase	Adjustments	Revenue	Adjustments	Revenue	Adjustments	Revenue
				[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]
					=[A]+[B]		=[C]+[D]		=[G]+[F]		=[G]+[H]		=[I]+[J]
1	601000	Vehicle Leasing	877.29		877.29		877.29	85.63	962.92	31.43	994.35	32.45	1,026.81
2	602000	Vehicle Fuel	24,731.64		24,731.64		24,731.64	2,414.05	27,145.69	885.96	28,031.65	914.88	28,946.52
3	603000	Vehicle Repairs and Maintenance	11,439.09		11,439.09		11,439.09	1,116.57	12,555.65	409.78	12,965.43	423.16	13,388.59
4	604000	Vehicle Registration/Licensing Fees	40.26		40.26		40.26	3.93	44.19	1.44	45.63	1.49	47.12
5	605000	Vehicle - Employee Mileage Claim	-		-		-	-	-	-	-	-	-
6	606000	Project Vehicle Hours	-		-		-	-	-	-	-	-	-
7	607000	Vehicle Charged to Projects	-		-		-	-	-	-	-	-	-
8	609000	Vehicle - Other Costs	1,483.97		1,483.97		1,483.97	144.85	1,628.82	53.16	1,681.98	54.90	1,736.87
10		Total Transportation Expense - Water	38,572.25	-	38,572.25	-	38,572.25	3,765.02	42,337.27	1,381.77	43,719.04	1,426.87	45,145.91

Sewer				Bradfield Farms - Fairfield Harbour - Treasure Cove									
Transportation Expense						Base Case	Base Case	WSIP	WSIP	WSIP	WSIP	WSIP	WSIP
Line													
No.	Account	Description	Total Per Books	Pro-Forma	Historical Test	Proposed	Total After	Rate Year 1	Rate Year 1	Rate Year 2	Rate Year 2	Rate Year 3	Rate Year 3
			[A]	Adjustment	Year as adjusted	Increase	Increase	Adjustments	Revenue	Adjustments	Revenue	Adjustments	Revenue
				[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]
					=[A]+[B]		=[C]+[D]		=[G]+[F]		=[G]+[H]		=[I]+[J]
11	601000	Vehicle Leasing	898.00		898.00		898.00	90.67	988.67	38.50	1,027.16	39.99	1,067.16
12	602000	Vehicle Fuel	25,315.32		25,315.32		25,315.32	2,556.12	27,871.44	1,085.21	28,956.66	1,127.47	30,084.12
13	603000	Vehicle Repairs and Maintenance	11,709.05		11,709.05		11,709.05	1,182.28	12,891.33	501.94	13,393.28	521.49	13,914.76
14	604000	Vehicle Registration/Licensing Fees	41.21		41.21		41.21	4.16	45.37	1.77	47.14	1.84	48.97
15	605000	Vehicle - Employee Mileage Claim	-		-		-	-	-	-	-	-	-
16	606000	Project Vehicle Hours	-		-		-	-	-	-	-	-	-
17	607000	Vehicle Charged to Projects	-		-		-	-	-	-	-	-	-
18	609000	Vehicle - Other Costs	1,518.99		1,518.99		1,518.99	153.37	1,672.37	65.12	1,737.48	67.65	1,805.13
20		Total Transportation Expense - Sewer	39,482.57	-	39,482.57	-	39,482.57	3,986.61	43,469.19	1,692.53	45,161.72	1,758.43	46,920.15

Transportation Expense

Column Calculations:
[A]- Company's total booked amounts for test year ended March 31, 2022
[B]- Amounts calculated based on Company's supporting schedules
[C]- Sum of Columns [A] & [B]
[D]- Base Case Proposed Increase calculated based on Company's supporting schedules
[E]- Sum of Columns [C] & [D]
[F]- WSIP Rate Year 1 Adjustments calculated based on Company's supporting schedules
[G]- Sum of Columns [C] & [F]
[H]- WSIP Rate Year 2 Adjustments calculated based on Company's supporting schedules
[I]- Sum of Columns [G] & [H]
[J]- WSIP Rate Year 3 Adjustments calculated based on Company's supporting schedules
[K]- Sum of Columns [I] & [J]

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule B-11b
Updated 09/19/2022

Water
Salary Captive Bradfield Farms - Fairfield Harbour - Treasure Cove

Line No.	Account	Description	Total Per Books [A]	Pro-Forma Adjustment [B]	Historical Test Year as adjusted [C] =[A]+[B]	Base Case	Base Case	WSIP	WSIP	WSIP	WSIP	WSIP	WSIP
						Proposed Increase [D]	Total After Increase [E] =[C]+[D]	Rate Year 1 Adjustments [F]	Rate Year 1 Revenue Requirement [G] =[C]+[F]	Rate Year 2 Adjustments [H]	Rate Year 2 Revenue Requirement [I] =[G]+[H]	Rate Year 3 Adjustments [J]	Rate Year 3 Revenue Requirement [K] =[I]+[J]
1	522001	Capitalized Time	(76,334.51)	10,796.51	[22] (65,538.00)		(65,538.00)	(1,966.14)	(67,504.14)	(2,025.12)	(69,529.26)	(2,085.88)	(71,615.14)
2													
3		Total Salary Captive - Water	<u>(76,334.51)</u>	<u>10,796.51</u>	<u>(65,538.00)</u>	-	<u>(65,538.00)</u>	<u>(1,966.14)</u>	<u>(67,504.14)</u>	<u>(2,025.12)</u>	<u>(69,529.26)</u>	<u>(2,085.88)</u>	<u>(71,615.14)</u>

Sewer
Salary Captive Bradfield Farms - Fairfield Harbour - Treasure Cove

Line No.	Account	Description	Total Per Books [A]	Pro-Forma Adjustment [B]	Historical Test Year as adjusted [C] =[A]+[B]	Base Case	Base Case	WSIP	WSIP	WSIP	WSIP	WSIP	WSIP
						Proposed Increase [D]	Total After Increase [E] =[C]+[D]	Rate Year 1 Adjustments [F]	Rate Year 1 Revenue Requirement [G] =[C]+[F]	Rate Year 2 Adjustments [H]	Rate Year 2 Revenue Requirement [I] =[G]+[H]	Rate Year 3 Adjustments [J]	Rate Year 3 Revenue Requirement [K] =[I]+[J]
4	522001	Capitalized Time	(78,136.05)	11,051.05	[22] (67,085.00)		(67,085.00)	(2,012.55)	(69,097.55)	(2,072.93)	(71,170.48)	(2,135.11)	(73,305.59)
5													
6		Total Salary Captive - Sewer	<u>(78,136.05)</u>	<u>11,051.05</u>	<u>(67,085.00)</u>	-	<u>(67,085.00)</u>	<u>(2,012.55)</u>	<u>(69,097.55)</u>	<u>(2,072.93)</u>	<u>(71,170.48)</u>	<u>(2,135.11)</u>	<u>(73,305.59)</u>

Salary Captive

Column Calculations:
[A]- Company's total booked amounts for test year ended March 31, 2022
[B]- Amounts calculated based on Company's supporting schedules
[C]- Sum of Columns [A] & [B]
[D]- Base Case Proposed Increase calculated based on Company's supporting schedules
[E]- Sum of Columns [C] & [D]
[F]- WSIP Rate Year 1 Adjustments calculated based on Company's supporting schedules
[G]- Sum of Columns [C] & [F]
[H]- WSIP Rate Year 2 Adjustments calculated based on Company's supporting schedules
[I]- Sum of Columns [G] & [H]
[J]- WSIP Rate Year 3 Adjustments calculated based on Company's supporting schedules
[K]- Sum of Columns [I] & [J]

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule B-12b
Updated 09/19/2022

Water
Outside Service
Bradfield Farms - Fairfield Harbour - Treasure Cove

Line No.	Account	Description	Total Per Books [A]	Pro-Forma Adjustment [B]	Historical Test Year as adjusted [C] =[A]+[B]	Base Case	Base Case	WSIP	WSIP	WSIP	WSIP	WSIP	WSIP
						Proposed Increase [D]	Total After Increase [E] =[C]+[D]	Rate Year 1 Adjustments [F]	Rate Year 1 Revenue Requirement [G] =[C]+[F]	Rate Year 2 Adjustments [H]	Rate Year 2 Revenue Requirement [I] =[G]+[H]	Rate Year 3 Adjustments [J]	Rate Year 3 Revenue Requirement [K] =[I]+[J]
1	540100	Consulting	1,269.53		1,269.53		1,269.53	123.92	1,393.45	45.48	1,438.93	46.96	1,485.89
2	540200	Accounting and Audit	-		-		-	-	-	-	-	-	-
3	540300	Recruitment	21.58		21.58		21.58	2.11	23.68	0.77	24.45	0.80	25.25
4	540400	Legal	1,176.75	(968.58) [20]	208.17		208.17	20.32	228.49	7.46	235.95	7.70	243.65
5	540500	Payroll	-		-		-	-	-	-	-	-	-
6	540600	Tax	-		-		-	-	-	-	-	-	-
7	540700	Engineering	-		-		-	-	-	-	-	-	-
8	540800	Temporary Labor	-		-		-	-	-	-	-	-	-
9	540900	Police	-		-		-	-	-	-	-	-	-
10	541000	Environmental	23,473.01		23,473.01		23,473.01	2,291.19	25,764.20	840.87	26,605.08	868.32	27,473.40
11	541100	Management Fee	-		-		-	-	-	-	-	-	-
12	541200	Contractor Outside Services	-		-		-	-	-	-	-	-	-
13	541300	Employee Finder Fees	57.64		57.64		57.64	5.63	63.27	2.06	65.33	2.13	67.46
14	549000	Other Outside Services	4,255.10	(4,550.26) [20]	(295.16)		(295.16)	(28.81)	(323.97)	(10.57)	(334.54)	(10.92)	(345.46)
15													
16		Total Outside Service - Water	30,253.61	(5,518.84)	24,734.77	-	24,734.77	2,414.35	27,149.13	886.07	28,035.20	914.99	28,950.19

Sewer
Outside Service
Bradfield Farms - Fairfield Harbour - Treasure Cove

Line No.	Account	Description	Total Per Books [A]	Pro-Forma Adjustment [B]	Historical Test Year as adjusted [C] =[A]+[B]	Base Case	Base Case	WSIP	WSIP	WSIP	WSIP	WSIP	WSIP
						Proposed Increase [D]	Total After Increase [E] =[C]+[D]	Rate Year 1 Adjustments [F]	Rate Year 1 Revenue Requirement [G] =[C]+[F]	Rate Year 2 Adjustments [H]	Rate Year 2 Revenue Requirement [I] =[G]+[H]	Rate Year 3 Adjustments [J]	Rate Year 3 Revenue Requirement [K] =[I]+[J]
17	540100	Consulting	1,299.50		1,299.50		1,299.50	131.21	1,430.71	55.71	1,486.41	57.88	1,544.29
18	540200	Accounting and Audit	-		-		-	-	-	-	-	-	-
19	540300	Recruitment	22.08		22.08		22.08	2.23	24.31	0.95	25.26	0.98	26.24
20	540400	Legal	1,204.52	(991.44) [20]	213.08		213.08	21.52	234.60	9.13	243.73	9.49	253.22
21	540500	Payroll	-		-		-	-	-	-	-	-	-
22	540600	Tax	-		-		-	-	-	-	-	-	-
23	540700	Engineering	-		-		-	-	-	-	-	-	-
24	540800	Temporary Labor	-		-		-	-	-	-	-	-	-
25	540900	Police	-		-		-	-	-	-	-	-	-
26	541000	Environmental	24,026.99		24,026.99		24,026.99	2,426.04	26,453.03	1,029.98	27,483.01	1,070.09	28,553.10
27	541100	Management Fee	-		-		-	-	-	-	-	-	-
28	541200	Contractor Outside Services	-		-		-	-	-	-	-	-	-
29	541300	Employee Finder Fees	59.00		59.00		59.00	5.96	64.96	2.53	67.49	2.63	70.11
30	549000	Other Outside Services	4,355.53	(4,657.65) [20]	(302.12)		(302.12)	(30.51)	(332.63)	(12.95)	(345.58)	(13.46)	(359.04)
31													
32		Total Outside Service - Sewer	30,967.62	(5,649.09)	25,318.53	-	25,318.53	2,556.45	27,874.97	1,085.35	28,960.32	1,127.61	30,087.93

Outside Service

Column Calculations:

[A]- Company's total booked amounts for test year ended March 31, 2022

[B]- Amounts calculated based on Company's supporting schedules

[C]- Sum of Columns [A] & [B]

[D]- Base Case Proposed Increase calculated based on Company's supporting schedules

[E]- Sum of Columns [C] & [D]

[F]- WSIP Rate Year 1 Adjustments calculated based on Company's supporting schedules

[G]- Sum of Columns [C] & [F]

[H]- WSIP Rate Year 2 Adjustments calculated based on Company's supporting schedules

[I]- Sum of Columns [G] & [H]

[J]- WSIP Rate Year 3 Adjustments calculated based on Company's supporting schedules

[K]- Sum of Columns [I] & [J]

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule B-13b
Updated 09/19/2022

Water
Salaries & Wages
Bradfield Farms - Fairfield Harbour - Treasure Cove

Line No.	Account	Description	Total Per Books [A]	Pro-Forma Adjustment [B]	Historical Test Year as adjusted [C] =[A]+[B]	Base Case Proposed Increase [D]	Base Case Total After Increase [E] =[C]+[D]	WSIP Rate Year 1 Adjustments [F]	WSIP Rate Year 1 Revenue Requirement [G] =[C]+[F]	WSIP Rate Year 2 Adjustments [H]	WSIP Rate Year 2 Revenue Requirement [I] =[G]+[H]	WSIP Rate Year 3 Adjustments [J]	WSIP Rate Year 3 Revenue Requirement [K] =[I]+[J]
1		Salaries & Wages - General	311,454.52	163,118.95	21a 474,573.47		474,573.47	14,237.20	488,810.68	14,664.32	503,475.00	15,104.25	518,579.25
3		Total Salaries & Wages - Water	311,454.52	163,118.95	474,573.47	-	474,573.47	14,237.20	488,810.68	14,664.32	503,475.00	15,104.25	518,579.25

Sewer
Salaries & Wages
Bradfield Farms - Fairfield Harbour - Treasure Cove

Line No.	Account	Description	Total Per Books [A]	Pro-Forma Adjustment [B]	Historical Test Year as adjusted [C] =[A]+[B]	Base Case Proposed Increase [D]	Base Case Total After Increase [E] =[C]+[D]	WSIP Rate Year 1 Adjustments [F]	WSIP Rate Year 1 Revenue Requirement [G] =[C]+[F]	WSIP Rate Year 2 Adjustments [H]	WSIP Rate Year 2 Revenue Requirement [I] =[G]+[H]	WSIP Rate Year 3 Adjustments [J]	WSIP Rate Year 3 Revenue Requirement [K] =[I]+[J]
4		Salaries & Wages - General	318,805.05	166,968.66	21a 485,773.71		485,773.71	14,573.21	500,346.92	15,010.41	515,357.32	15,460.72	530,818.04
6		Total Salaries & Wages - Sewer	318,805.05	166,968.66	485,773.71	-	485,773.71	14,573.21	500,346.92	15,010.41	515,357.32	15,460.72	530,818.04

Salaries & Wages

Column Calculations:

[A]- Company's total booked amounts for test year ended March 31, 2022
[B]- Amounts calculated based on Company's supporting schedules
[C]- Sum of Columns [A] & [B]
[D]- Base Case Proposed Increase calculated based on Company's supporting schedules
[E]- Sum of Columns [C] & [D]
[F]- WSIP Rate Year 1 Adjustments calculated based on Company's supporting schedules
[G]- Sum of Columns [C] & [F]
[H]- WSIP Rate Year 2 Adjustments calculated based on Company's supporting schedules
[I]- Sum of Columns [G] & [H]
[J]- WSIP Rate Year 3 Adjustments calculated based on Company's supporting schedules
[K]- Sum of Columns [I] & [J]

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule B-14b
Updated 09/19/2022

Water
Office Supplies & Other Expenses

Bradfield Farms - Fairfield Harbour - Treasure Cove

Line No.	Account	Description	Total Per Books [A]	Pro-Forma Adjustment [B]	Historical Test Year as adjusted [C] =[A]+[B]	Base Case Proposed Increase [D]	Base Case Total After Increase [E] =[C]+[D]	WSIP Rate Year 1 Adjustments [F]	WSIP Rate Year 1 Revenue Requirement [G] =[C]+[F]	WSIP Rate Year 2 Adjustments [H]	WSIP Rate Year 2 Revenue Requirement [I] =[G]+[H]	WSIP Rate Year 3 Adjustments [J]	WSIP Rate Year 3 Revenue Requirement [K] =[I]+[J]
1	628100	Billing Stock	-	-	-	-	-	-	-	-	-	-	-
2	628200	Billing Envelopes	-	-	-	-	-	-	-	-	-	-	-
3	628300	Billing Postage	-	-	-	-	-	-	-	-	-	-	-
4	628400	Customer Service Printing	15,326.42	18,082.53	33,408.96	-	33,408.96	2,539.08	35,948.04	1,173.25	37,121.29	1,211.54	38,332.82
5	628500	Customer Freight/Courier Charges	-	-	-	-	-	-	-	-	-	-	-
6		Total Billing & Customer Service	<u>15,326.42</u>	<u>18,082.53</u>	<u>33,408.96</u>	<u>-</u>	<u>33,408.96</u>	<u>2,539.08</u>	<u>35,948.04</u>	<u>1,173.25</u>	<u>37,121.29</u>	<u>1,211.54</u>	<u>38,332.82</u>
7	550200	Computer Repair and Maintenance	0.75	-	0.75	-	0.75	0.07	0.82	0.03	0.85	0.03	0.88
8	550300	Computer Supplies	(856.92)	-	(856.92)	-	(856.92)	(83.64)	(940.57)	(30.70)	(971.26)	(31.70)	(1,002.96)
9	550400	Internet Services	57.25	-	57.25	-	57.25	5.59	62.84	2.05	64.89	2.12	67.01
10	550500	Website Development	-	-	-	-	-	-	-	-	-	-	-
11	550600	Computer Licensing	-	-	-	-	-	-	-	-	-	-	-
12	550700	Software	-	-	-	-	-	-	-	-	-	-	-
13	550800	Computer Amort	-	-	-	-	-	-	-	-	-	-	-
14	559900	Other Computer/IT Expenses	-	-	-	-	-	-	-	-	-	-	-
15		Total IT Department	<u>(798.92)</u>	<u>-</u>	<u>(798.92)</u>	<u>-</u>	<u>(798.92)</u>	<u>(77.98)</u>	<u>(876.91)</u>	<u>(28.62)</u>	<u>(905.52)</u>	<u>(29.55)</u>	<u>(935.08)</u>
16	581100	Office Supplies	740.13	-	740.13	-	740.13	72.24	812.38	26.51	838.89	27.38	866.27
17	581200	Kitchen Supplies	214.19	-	214.19	-	214.19	20.91	235.09	7.67	242.77	7.92	250.69
18	581300	Cleaning Supplies	109.62	-	109.62	-	109.62	10.70	120.32	3.93	124.24	4.05	128.30
19	582100	Office Equipment	154.92	-	154.92	-	154.92	15.12	170.04	5.55	175.59	5.73	181.32
20	582200	Office Equipment - Rent/Leased	-	-	-	-	-	-	-	-	-	-	-
21	583100	Office Printing/Blueprints	87.74	-	87.74	-	87.74	8.56	96.31	3.14	99.45	3.25	102.70
22	583200	Office Publications/Subscriptions	-	-	-	-	-	-	-	-	-	-	-
23	583300	Artwork, Display and Banner	12.48	-	12.48	-	12.48	1.22	13.70	0.45	14.14	0.46	14.60
24	583400	Office Shipping Charges/Postage/Courier	2,151.90	-	2,151.90	-	2,151.90	210.05	2,361.95	77.09	2,439.04	79.60	2,518.64
25	583500	Office Duties and Brokerage	-	-	-	-	-	-	-	-	-	-	-
26		Total Office Expense	<u>3,470.98</u>	<u>-</u>	<u>3,470.98</u>	<u>-</u>	<u>3,470.98</u>	<u>338.80</u>	<u>3,809.79</u>	<u>124.34</u>	<u>3,934.13</u>	<u>128.40</u>	<u>4,062.53</u>
27		Total Office Supplies & Other Expenses - Water	<u>17,998.49</u>	<u>18,082.53</u>	<u>36,081.02</u>	<u>-</u>	<u>36,081.02</u>	<u>2,799.90</u>	<u>38,880.92</u>	<u>1,268.97</u>	<u>40,149.89</u>	<u>1,310.38</u>	<u>41,460.27</u>

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule B-14b
Updated 09/19/2022

Sewer Bradfield Farms - Fairfield Harbour - Treasure Cove
Office Supplies & Other Expenses

Line No.	Account	Description	Total Per Books [A]	Pro-Forma Adjustment [B]	Historical Test Year as adjusted [C] =[A]+[B]	Base Case Proposed Increase [D]	Base Case Total After Increase [E] =[C]+[D]	WSIP Rate Year 1 Adjustments [F]	WSIP Rate Year 1 Revenue Requirement [G] =[C]+[F]	WSIP Rate Year 2 Adjustments [H]	WSIP Rate Year 2 Revenue Requirement [I] =[G]+[H]	WSIP Rate Year 3 Adjustments [J]	WSIP Rate Year 3 Revenue Requirement [K] =[I]+[J]
28	628100	Billing Stock	-	-	-	-	-	-	-	-	-	-	-
29	628200	Billing Envelopes	-	-	-	-	-	-	-	-	-	-	-
30	628300	Billing Postage	-	-	-	-	-	-	-	-	-	-	-
31	628400	Customer Service Printing	15,688.14	18,509.29	34,197.43	-	34,197.43	2,599.00	36,796.44	1,432.72	38,229.15	1,488.50	39,717.66
32	628500	Customer Freight/Courier Charges	-	-	-	-	-	-	-	-	-	-	-
33		Total Billing & Customer Service	15,688.14	18,509.29	34,197.43	-	34,197.43	2,599.00	36,796.44	1,432.72	38,229.15	1,488.50	39,717.66
34	550200	Computer Repair and Maintenance	0.77	-	0.77	-	0.77	0.08	0.85	0.03	0.88	0.03	0.91
35	550300	Computer Supplies	(877.15)	-	(877.15)	-	(877.15)	(88.57)	(965.71)	(37.60)	(1,003.32)	(39.07)	(1,042.38)
36	550400	Internet Services	58.60	-	58.60	-	58.60	5.92	64.52	2.51	67.03	2.61	69.64
37	550500	Website Development	-	-	-	-	-	-	-	-	-	-	-
38	550600	Computer Licensing	-	-	-	-	-	-	-	-	-	-	-
39	550700	Software	-	-	-	-	-	-	-	-	-	-	-
40	550800	Computer Amort	-	-	-	-	-	-	-	-	-	-	-
41	559900	Other Computer/IT Expenses	-	-	-	-	-	-	-	-	-	-	-
42		Total IT Department	(817.78)	-	(817.78)	-	(817.78)	(82.57)	(900.35)	(35.06)	(935.41)	(36.42)	(971.83)
43	581100	Office Supplies	757.60	-	757.60	-	757.60	76.50	834.09	32.48	866.57	33.74	900.31
44	581200	Kitchen Supplies	219.24	-	219.24	-	219.24	22.14	241.38	9.40	250.78	9.76	260.54
45	581300	Cleaning Supplies	112.20	-	112.20	-	112.20	11.33	123.53	4.81	128.34	5.00	133.34
46	582100	Office Equipment	158.58	-	158.58	-	158.58	16.01	174.59	6.80	181.39	7.06	188.45
47	582200	Office Equipment - Rent/Leased	-	-	-	-	-	-	-	-	-	-	-
48	583100	Office Printing/Blueprints	89.82	-	89.82	-	89.82	9.07	98.88	3.85	102.73	4.00	106.73
49	583200	Office Publications/Subscriptions	-	-	-	-	-	-	-	-	-	-	-
50	583300	Artwork, Display and Banner	12.77	-	12.77	-	12.77	1.29	14.06	0.55	14.61	0.57	15.18
51	583400	Office Shipping Charges/Postage/Courier	2,202.69	-	2,202.69	-	2,202.69	222.41	2,425.10	94.42	2,519.52	98.10	2,617.63
52	583500	Office Duties and Brokerage	-	-	-	-	-	-	-	-	-	-	-
53		Total Office Expense	3,552.90	-	3,552.90	-	3,552.90	358.74	3,911.64	152.31	4,063.95	158.24	4,222.18
54		Total Office Supplies & Other Expenses - Sewer	18,423.26	18,509.29	36,932.55	-	36,932.55	2,875.17	39,807.73	1,549.97	41,357.70	1,610.32	42,968.01

Office Supplies & Other Expenses

Column Calculations:

- [A]- Company's total booked amounts for test year ended March 31, 2022
- [B]- Amounts calculated based on Company's supporting schedules
- [C]- Sum of Columns [A] & [B]
- [D]- Base Case Proposed Increase calculated based on Company's supporting schedules
- [E]- Sum of Columns [C] & [D]
- [F]- WSIP Rate Year 1 Adjustments calculated based on Company's supporting schedules
- [G]- Sum of Columns [C] & [F]
- [H]- WSIP Rate Year 2 Adjustments calculated based on Company's supporting schedules
- [I]- Sum of Columns [G] & [H]
- [J]- WSIP Rate Year 3 Adjustments calculated based on Company's supporting schedules
- [K]- Sum of Columns [I] & [J]

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule B-15b
Updated 09/19/2022

Water
Regulatory Commission Expense
Bradfield Farms - Fairfield Harbour - Treasure Cove

Line No.	Account	Description	Total Per Books	Pro-Forma Adjustment	Historical Test Year as adjusted	Base Case Proposed Increase	Base Case Total After Increase	WSIP Rate Year 1 Adjustments	WSIP Rate Year 1 Revenue Requirement	WSIP Rate Year 2 Adjustments	WSIP Rate Year 2 Revenue Requirement	WSIP Rate Year 3 Adjustments	WSIP Rate Year 3 Revenue Requirement
			[A]	[B]	[C] =[A]+[B]	[D]	[E] =[C]+[D]	[F]	[G] =[C]+[F]	[H]	[I] =[G]+[H]	[J]	[K] =[I]+[J]
1	611100	Rate Case Amortization	15,195.80	21,925.20	[12]		37,121.00	-	37,121.00	-	37,121.00	-	37,121.00
2	611200	Cost of Service Study	-		-		-	-	-	-	-	-	-
3	611300	Depreciation Study	-		-		-	-	-	-	-	-	-
4	611400	Regulatory Penalties and Fines	-		-		-	-	-	-	-	-	-
5	612100	Regulatory Fees	348.69		348.69		348.69	34.04	382.73	12.49	395.22	12.90	408.12
6	612200	Water Resource Conservation	-		-		-	-	-	-	-	-	-
7	612300	Misc Rate Case Expense	-		-		-	-	-	-	-	-	-
8	612900	Other Regulatory Expenses	10,316.52	1,681.71	[27b]		11,998.23	1,171.14	13,169.37	429.81	13,599.18	443.84	14,043.02
9													
10		Total Regulatory Commission Expense - Water	25,861.01	23,606.91	49,467.92	-	49,467.92	1,205.18	50,673.10	442.30	51,115.40	456.74	51,572.14

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule B-15b
Updated 09/19/2022

Sewer
Regulatory Commission Expense
Bradfield Farms - Fairfield Harbour - Treasure Cove

Line No.	Account	Description	Total Per Books	Pro-Forma Adjustment	Historical Test Year as adjusted	Base Case Proposed Increase	Base Case Total After Increase	WSIP Rate Year 1 Adjustments	WSIP Rate Year 1 Revenue Requirement	WSIP Rate Year 2 Adjustments	WSIP Rate Year 2 Revenue Requirement	WSIP Rate Year 3 Adjustments	WSIP Rate Year 3 Revenue Requirement
			[A]	[B]	[C] =[A]+[B]	[D]	[E] =[C]+[D]	[F]	[G] =[C]+[E]	[H]	[I] =[G]+[H]	[J]	[K] =[I]+[J]
11	611100	Rate Case Amortization	15,554.44	22,442.56	[12]	37,997.00	37,997.00	-	37,997.00	-	37,997.00	-	37,997.00
12	611200	Cost of Service Study	-	-	-	-	-	-	-	-	-	-	-
13	611300	Depreciation Study	-	-	-	-	-	-	-	-	-	-	-
14	611400	Regulatory Penalties and Fines	-	-	-	-	-	-	-	-	-	-	-
15	612100	Regulatory Fees	356.92	-	356.92	-	356.92	36.04	392.96	15.30	408.26	15.90	424.15
16	612200	Water Resource Conservation	-	-	-	-	-	-	-	-	-	-	-
17	612300	Misc Rate Case Expense	-	-	-	-	-	-	-	-	-	-	-
18	612900	Other Regulatory Expenses	10,559.99	1,721.40	[27b]	12,281.39	12,281.39	1,240.07	13,521.46	526.48	14,047.94	546.98	14,594.91
19													
20		Total Regulatory Commission Expense - Sewer	26,471.35	24,163.96		-	50,635.31	1,276.11	51,911.42	541.78	52,453.20	562.87	53,016.07

Regulatory Commission Expense

Column Calculations:
[A]- Company's total booked amounts for test year ended March 31, 2022
[B]- Amounts calculated based on Company's supporting schedules
[C]- Sum of Columns [A] & [B]
[D]- Base Case Proposed Increase calculated based on Company's supporting schedules
[E]- Sum of Columns [C] & [D]
[F]- WSIP Rate Year 1 Adjustments calculated based on Company's supporting schedules
[G]- Sum of Columns [C] & [E]
[H]- WSIP Rate Year 2 Adjustments calculated based on Company's supporting schedules
[I]- Sum of Columns [G] & [H]
[J]- WSIP Rate Year 3 Adjustments calculated based on Company's supporting schedules
[K]- Sum of Columns [I] & [J]

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule B-16b
Updated 09/19/2022

Water
Pension & Other Benefits

Bradfield Farms - Fairfield Harbour - Treasure Cove

Line No.	Account	Description	Total Per Books	Pro-Forma Adjustment	Historical Test Year as adjusted	Base Case Proposed Increase	Base Case Total After Increase	WSIP Rate Year 1 Adjustments	WSIP Rate Year 1 Revenue Requirement	WSIP Rate Year 2 Adjustments	WSIP Rate Year 2 Revenue Requirement	WSIP Rate Year 3 Adjustments	WSIP Rate Year 3 Revenue Requirement
			[A]	[B]	[C] =[A]+[B]	[D]	[E] =[C]+[D]	[F]	[G] =[C]+[F]	[H]	[I] =[G]+[H]	[J]	[K] =[I]+[J]
1	531001	401K Profit Sharing	8,650.19	3,453.90 21b	12,104.09		12,104.09	919.91	13,024.00	425.07	13,449.06	438.94	13,888.00
2	531002	401K Match	8,777.99	3,050.05 21b	11,828.04		11,828.04	898.93	12,726.97	415.37	13,142.34	428.93	13,571.27
3	531100	RRSP Match	-	-	-		-	-	-	-	-	-	-
4	531200	Canada Pension Plan	-	-	-		-	-	-	-	-	-	-
5	532001	Health Admin and Stop Loss	12,070.34	(12,070.34) 21b	(0.00)		(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
6	532002	Dental	3,197.67	(219.49) 21b	2,978.18		2,978.18	226.34	3,204.52	104.59	3,309.11	108.00	3,417.11
7	532003	Medical	-	-	-		-	-	-	-	-	-	-
8	532004	Medical Service Plan (MSP)	-	-	-		-	-	-	-	-	-	-
9	532005	Employee Insurance Deductions	(20,948.60)	20,948.60 21b	(0.00)		(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
10	532006	Health Insurance Claims	86,018.28	(4,506.41) 21b	81,511.87		81,511.87	6,194.90	87,706.77	2,862.51	90,569.29	2,955.94	93,525.22
11	532007	Group Insurance	-	-	-		-	-	-	-	-	-	-
12	532008	Health Insurance	-	-	-		-	-	-	-	-	-	-
13	532009	Workers Compensation Insurance (WCB)	5,549.84	(1,019.75) 25	4,530.09		4,530.09	344.29	4,874.38	159.09	5,033.46	164.28	5,197.74
14	532010	Unemployment Insurance (EI)	-	-	-		-	-	-	-	-	-	-
15	532011	Union Dues	-	-	-		-	-	-	-	-	-	-
16	532012	Term Life Insurance	6,296.72	(2,775.41) 21b	3,521.31		3,521.31	267.62	3,788.93	123.66	3,912.59	127.70	4,040.29
17	532013	Term Life Insurance Opt	(1,333.54)	1,333.54 21b	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	532014	Depend Life Insurance Opt	-	-	-		-	-	-	-	-	-	-
19	532015	Vacation	-	-	-		-	-	-	-	-	-	-
20	532016	Education / Tuition	-	-	-		-	-	-	-	-	-	-
21	532017	Safety	-	-	-		-	-	-	-	-	-	-
22	532018	Longevity	-	-	-		-	-	-	-	-	-	-
23	532019	Incidental	-	-	-		-	-	-	-	-	-	-
24	532020	Holiday	-	-	-		-	-	-	-	-	-	-
25	532021	Jury Duty	-	-	-		-	-	-	-	-	-	-
26	532900	Other Employee Benefits	750.69	57.76 21b	808.45		808.45	61.44	869.89	28.39	898.28	29.32	927.60
27	532999	Payroll Suspense	-	-	-		-	-	-	-	-	-	-
28													
29		Total Pension & Other Benefits - Water	109,029.57	8,252.45	117,282.02	-	117,282.02	8,913.43	126,195.46	4,118.68	130,314.13	4,253.10	134,567.24

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule B-16b
Updated 09/19/2022

Sewer
Pension & Other Benefits
Bradfield Farms - Fairfield Harbour - Treasure Cove

Line No.	Account	Description	Total Per Books	Pro-Forma Adjustment	Historical Test Year as adjusted	Base Case Proposed Increase	Base Case Total After Increase	WSIP Rate Year 1 Adjustments	WSIP Rate Year 1 Revenue Requirement	WSIP Rate Year 2 Adjustments	WSIP Rate Year 2 Revenue Requirement	WSIP Rate Year 3 Adjustments	WSIP Rate Year 3 Revenue Requirement
			[A]	[B]	[C] =[A]+[B]	[D]	[E] =[C]+[D]	[F]	[G] =[C]+[F]	[H]	[I] =[G]+[H]	[J]	[K] =[I]+[J]
30	531001	401K Profit Sharing	8,854.33	3,535.42 21b	12,389.75		12,389.75	941.62	13,331.38	519.08	13,850.45	539.29	14,389.74
31	531002	401K Match	8,985.15	3,122.04 21b	12,107.19		12,107.19	920.15	13,027.34	507.24	13,534.58	526.99	14,061.56
32	531100	RRSP Match	-	-	-		-	-	-	-	-	-	-
33	531200	Canada Pension Plan	-	-	-		-	-	-	-	-	-	-
34	532001	Health Admin and Stop Loss	12,355.20	(12,355.20) 21b	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00
35	532002	Dental	3,273.14	(224.68) 21b	3,048.46		3,048.46	231.68	3,280.14	127.72	3,407.86	132.69	3,540.55
36	532003	Medical	-	-	-		-	-	-	-	-	-	-
37	532004	Medical Service Plan (MSP)	-	-	-		-	-	-	-	-	-	-
38	532005	Employee Insurance Deductions	(21,443.00)	21,443.00 21b	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00
39	532006	Health Insurance Claims	88,048.37	(4,612.77) 21b	83,435.60		83,435.60	6,341.11	89,776.70	3,495.58	93,272.28	3,631.68	96,903.96
40	532007	Group Insurance	-	-	-		-	-	-	-	-	-	-
41	532008	Health Insurance	-	-	-		-	-	-	-	-	-	-
42	532009	Workers Compensation Insurance (WCB)	5,680.82	(1,043.82) 25	4,637.00		4,637.00	352.41	4,989.41	194.27	5,183.68	201.83	5,385.51
43	532010	Unemployment Insurance (EI)	-	-	-		-	-	-	-	-	-	-
44	532011	Union Dues	-	-	-		-	-	-	-	-	-	-
45	532012	Term Life Insurance	6,445.33	(2,840.92) 21b	3,604.41		3,604.41	273.94	3,878.34	151.01	4,029.35	156.89	4,186.24
46	532013	Term Life Insurance Opt	(1,365.01)	1,365.01 21b	(0.00)		(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
47	532014	Depend Life Insurance Opt	-	-	-		-	-	-	-	-	-	-
48	532015	Vacation	-	-	-		-	-	-	-	-	-	-
49	532016	Education / Tuition	-	-	-		-	-	-	-	-	-	-
50	532017	Safety	-	-	-		-	-	-	-	-	-	-
51	532018	Longevity	-	-	-		-	-	-	-	-	-	-
52	532019	Incidental	-	-	-		-	-	-	-	-	-	-
53	532020	Holiday	-	-	-		-	-	-	-	-	-	-
54	532021	Jury Duty	-	-	-		-	-	-	-	-	-	-
55	532900	Other Employee Benefits	768.40	59.13 21b	827.53		827.53	62.89	890.43	34.67	925.10	36.02	961.12
56	532999	Payroll Suspende	-	-	-		-	-	-	-	-	-	-
57													
58		Total Pension & Other Benefits - Sewer	111,602.74	8,447.21	120,049.95	-	120,049.95	9,123.80	129,173.74	5,029.55	134,203.30	5,225.39	139,428.68

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule B-16b
Updated 09/19/2022

Pension & Other Benefits

Column Calculations:
[A]- Company's total booked amounts for test year ended March 31, 2022
[B]- Amounts calculated based on Company's supporting schedules
[C]- Sum of Columns [A] & [B]
[D]- Base Case Proposed Increase calculated based on Company's supporting schedules
[E]- Sum of Columns [C] & [D]
[F]- WSIP Rate Year 1 Adjustments calculated based on Company's supporting schedules
[G]- Sum of Columns [C] & [F]
[H]- WSIP Rate Year 2 Adjustments calculated based on Company's supporting schedules
[I]- Sum of Columns [G] & [H]
[J]- WSIP Rate Year 3 Adjustments calculated based on Company's supporting schedules
[K]- Sum of Columns [I] & [J]

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule B-17b
Updated 09/19/2022

Water Rent		Bradfield Farms - Fairfield Harbour - Treasure Cove											
						Base Case	Base Case	WSIP	WSIP	WSIP	WSIP	WSIP	WSIP
Line No.	Account	Description	Total Per Books	Pro-Forma Adjustment	Historical Test Year as adjusted	Proposed Increase	Total After Increase	Rate Year 1 Adjustments	Rate Year 1 Revenue Requirement	Rate Year 2 Adjustments	Rate Year 2 Revenue Requirement	Rate Year 3 Adjustments	Rate Year 3 Revenue Requirement
			[A]	[B]	[C] =[A]+[B]	[D]	[E] =[C]+[D]	[F]	[G] =[C]+[F]	[H]	[I] =[G]+[H]	[J]	[K] =[I]+[J]
1	571100	Building Rent	12,279.77	13,166.23	[24] 25,446.00		25,446.00	1,933.90	27,379.90	893.61	28,273.50	922.77	29,196.27
2	571200	Building Rent - Inducement	-	-	-		-	-	-	-	-	-	-
3	571300	Building Rent - Recovery	-	-	-		-	-	-	-	-	-	-
4													
5		Total Rent - Water	12,279.77	13,166.23	25,446.00	-	25,446.00	1,933.90	27,379.90	893.61	28,273.50	922.77	29,196.27

Sewer Rent	Bradfield Farms - Fairfield Harbour - Treasure Cove												
						Base Case	Base Case	WSIP	WSIP	WSIP	WSIP	WSIP	WSIP
Line No.	Account	Description	Total Per Books	Pro-Forma Adjustment	Historical Test Year as adjusted	Proposed Increase	Total After Increase	Rate Year 1 Adjustments	Revenue Requirement	Rate Year 2 Adjustments	Revenue Requirement	Rate Year 3 Adjustments	Revenue Requirement
			[A]	[B]	[C] =[A]+[B]	[D]	[E] =[C]+[D]	[F]	[G] =[C]+[F]	[H]	[I] =[G]+[H]	[J]	[K] =[I]+[J]
6	571100	Building Rent	12,569.58	13,477.42	[24] 26,047.00		26,047.00	1,979.57	28,026.57	1,091.25	29,117.82	1,133.74	30,251.57
7	571200	Building Rent - Inducement	-	-	-		-	-	-	-	-	-	-
8	571300	Building Rent - Recovery	-	-	-		-	-	-	-	-	-	-
9													
10		Total Rent - Sewer	12,569.58	13,477.42	26,047.00	-	26,047.00	1,979.57	28,026.57	1,091.25	29,117.82	1,133.74	30,251.57

Rent

Column Calculations:

[A]- Company's total booked amounts for test year ended March 31, 2022

[B]- Amounts calculated based on Company's supporting schedules

[C]- Sum of Columns [A] & [B]

[D]- Base Case Proposed Increase calculated based on Company's supporting schedules

[E]- Sum of Columns [C] & [D]

[F]- WSIP Rate Year 1 Adjustments calculated based on Company's supporting schedules

[G]- Sum of Columns [C] & [F]

[H]- WSIP Rate Year 2 Adjustments calculated based on Company's supporting schedules

[I]- Sum of Columns [G] & [H]

[J]- WSIP Rate Year 3 Adjustments calculated based on Company's supporting schedules

[K]- Sum of Columns [I] & [J]

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Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule B-18b
Updated 09/19/2022

Water Insurance Bradfield Farms - Fairfield Harbour - Treasure Cove

Line No.	Account	Description	Total Per Books [A]	Pro-Forma Adjustment [B]	Historical Test Year as adjusted [C] =[A]+[B]	Base Case Proposed Increase [D]	Base Case Total After Increase [E] =[C]+[D]	WSIP Rate Year 1 Adjustments [F]	WSIP Rate Year 1 Revenue Requirement [G] =[C]+[F]	WSIP Rate Year 2 Adjustments [H]	WSIP Rate Year 2 Revenue Requirement [I] =[G]+[H]	WSIP Rate Year 3 Adjustments [J]	WSIP Rate Year 3 Revenue Requirement [K] =[I]+[J]
1	560100	General Liability Insurance	17,622.32	4,295.73	[25]	21,918.05	21,918.05	1,665.77	23,583.82	769.71	24,353.54	794.83	25,148.37
2	560200	Property Insurance	31,783.34	1,930.24	[25]	33,713.58	33,713.58	8,931.84	42,645.42	6,377.75	49,023.17	4,210.87	53,234.04
3	560300	Vehicle Insurance	9,068.69	(602.69)	[25]	8,466.00	8,466.00	2,242.93	10,708.93	1,601.55	12,310.48	1,057.41	13,367.89
4	560400	Uninsured Losses	7,319.39	287.62	[25]	7,607.01	7,607.01	578.13	8,185.14	267.14	8,452.29	275.86	8,728.14
5	560500	Other Insurance	10,700.65	3,428.21	[25]	14,128.86	14,128.86	1,073.79	15,202.66	496.17	15,698.83	512.37	16,211.20
6													
7		Total Insurance - Water	76,494.40	9,339.11		-	85,833.51	14,492.47	100,325.98	9,512.33	109,838.30	6,851.34	116,689.64

Sewer Insurance Bradfield Farms - Fairfield Harbour - Treasure Cove

Line No.	Account	Description	Total Per Books [A]	Pro-Forma Adjustment [B]	Historical Test Year as adjusted [C] =[A]+[B]	Base Case Proposed Increase [D]	Base Case Total After Increase [E] =[C]+[D]	WSIP Rate Year 1 Adjustments [F]	WSIP Rate Year 1 Revenue Requirement [G] =[C]+[F]	WSIP Rate Year 2 Adjustments [H]	WSIP Rate Year 2 Revenue Requirement [I] =[G]+[H]	WSIP Rate Year 3 Adjustments [J]	WSIP Rate Year 3 Revenue Requirement [K] =[I]+[J]
8	560100	General Liability Insurance	18,038.22	4,397.11	[25]	22,435.33	22,435.33	1,705.09	24,140.42	939.94	25,080.36	976.54	26,056.90
9	560200	Property Insurance	32,533.45	1,975.79	[25]	34,509.24	34,509.24	2,670.08	37,179.32	8,925.83	46,105.15	6,401.70	52,506.84
10	560300	Vehicle Insurance	9,282.72	(616.91)	[25]	8,665.81	8,665.81	670.50	9,336.30	2,241.41	11,577.72	1,607.57	13,185.28
11	560400	Uninsured Losses	7,492.13	294.41	[25]	7,786.54	7,786.54	591.78	8,378.32	326.22	8,704.54	338.92	9,043.46
12	560500	Other Insurance	10,953.20	3,509.12	[25]	14,462.31	14,462.31	1,099.14	15,561.45	605.91	16,167.35	629.50	16,796.85
13													
14		Total Insurance - Sewer	78,299.71	9,559.52		-	87,859.23	6,736.58	94,595.81	13,039.31	107,635.12	9,954.22	117,589.34

Insurance

Column Calculations:

[A]- Company's total booked amounts for test year ended March 31, 2022

[B]- Amounts calculated based on Company's supporting schedules

[C]- Sum of Columns [A] & [B]

[D]- Base Case Proposed Increase calculated based on Company's supporting schedules

[E]- Sum of Columns [C] & [D]

[F]- WSIP Rate Year 1 Adjustments calculated based on Company's supporting schedules

[G]- Sum of Columns [C] & [F]

[H]- WSIP Rate Year 2 Adjustments calculated based on Company's supporting schedules

[I]- Sum of Columns [G] & [H]

[J]- WSIP Rate Year 3 Adjustments calculated based on Company's supporting schedules

[K]- Sum of Columns [I] & [J]

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule B-19b
Updated 09/19/2022

Water		Bradfield Farms - Fairfield Harbour - Treasure Cove											
Office Utilities													
Line													
No.	Account	Description	Total Per Books	Pro-Forma Adjustment	Historical Test Year as adjusted	Proposed Increase	Total After Increase	Rate Year 1 Adjustments	WSIP Rate Year 1 Revenue Requirement	WSIP Rate Year 2 Adjustments	WSIP Rate Year 2 Revenue Requirement	WSIP Rate Year 3 Adjustments	WSIP Rate Year 3 Revenue Requirement
			[A]	[B]	[C] =[A]+[B]	[D]	[E] =[C]+[D]	[F]	[G] =[C]+[F]	[H]	[I] =[G]+[H]	[J]	[K] =[I]+[J]
1	584100	Office Electric	1,129.36		1,129.36		1,129.36	110.24	1,239.60	40.46	1,280.06	41.78	1,321.83
2	584200	Office Gas/Heat	19.91		19.91		19.91	1.94	21.85	0.71	22.57	0.74	23.30
3	584300	Office Water	5.81		5.81		5.81	0.57	6.37	0.21	6.58	0.21	6.80
4	584900	Office Other Utilities	-		-		-	-	-	-	-	-	-
5	585100	Office Garbage Disposal/Removal	10,816.76		10,816.76		10,816.76	1,055.82	11,872.58	387.49	12,260.07	400.14	12,660.20
6	585200	Office Landscape/Mowing	42.47		42.47		42.47	4.15	46.61	1.52	48.14	1.57	49.71
7	585300	Office Snow Removal	-		-		-	-	-	-	-	-	-
8	585400	Office Security/Alarm System	25.94		25.94		25.94	2.53	28.47	0.93	29.40	0.96	30.36
9	585500	Office Cleaning Services	14.90		14.90		14.90	1.45	16.36	0.53	16.89	0.55	17.44
10	585900	Other Office Maintenance	-		-		-	-	-	-	-	-	-
11	586100	Landline/Telephone/Fax	819.67		819.67		819.67	80.01	899.68	29.36	929.04	30.32	959.36
12	586200	Cellular/Mobile Phones	3,380.90		3,380.90		3,380.90	330.01	3,710.91	121.11	3,832.02	125.07	3,957.09
13	587100	Holiday Events/Picnics	-		-		-	-	-	-	-	-	-
14	587200	Meals and Entertainment	-		-		-	-	-	-	-	-	-
15	587300	Meals and Entertainment - 50% Tax Deductible	-		-		-	-	-	-	-	-	-
16	587400	Meals and Entertainment - Non Deductible	-		-		-	-	-	-	-	-	-
17	587500	Answering Service	865.43		865.43		865.43	84.47	949.90	31.00	980.90	32.01	1,012.92
18	587900	Other Office Expenses	194.52		194.52		194.52	18.99	213.51	6.97	220.48	7.20	227.68
19	511003	Purchased Services-Gas	47.18		47.18		47.18	4.61	51.79	1.69	53.48	1.75	55.22
20													
21		Total Office Utilities - Water	17,362.85	-	17,362.85	-	17,362.85	1,694.78	19,057.63	621.99	19,679.62	642.29	20,321.91

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule B-19b
Updated 09/19/2022

Sewer
Office Utilities
Bradfield Farms - Fairfield Harbour - Treasure Cove

Line No.	Account	Description	Total Per Books [A]	Pro-Forma Adjustment [B]	Historical Test Year as adjusted [C] =[A]+[B]	Base Case Proposed Increase [D]	Base Case Total After Increase [E] =[C]+[D]	WSIP Rate Year 1 Adjustments [F]	WSIP Rate Year 1 Revenue Requirement [G] =[C]+[F]	WSIP Rate Year 2 Adjustments [H]	WSIP Rate Year 2 Revenue Requirement [I] =[G]+[H]	WSIP Rate Year 3 Adjustments [J]	WSIP Rate Year 3 Revenue Requirement [K] =[I]+[J]
22	584100	Office Electric	1,156.02		1,156.02		1,156.02	116.72	1,272.74	49.56	1,322.30	51.49	1,373.78
23	584200	Office Gas/Heat	20.38		20.38		20.38	2.06	22.44	0.87	23.31	0.91	24.22
24	584300	Office Water	5.94		5.94		5.94	0.60	6.54	0.25	6.80	0.26	7.06
25	584900	Office Other Utilities	-		-		-	-	-	-	-	-	-
26	585100	Office Garbage Disposal/Removal	11,072.04		11,072.04		11,072.04	1,117.96	12,190.00	474.63	12,664.63	493.11	13,157.75
27	585200	Office Landscape/Mowing	43.47		43.47		43.47	4.39	47.86	1.86	49.72	1.94	51.66
28	585300	Office Snow Removal	-		-		-	-	-	-	-	-	-
29	585400	Office Security/Alarm System	26.55		26.55		26.55	2.68	29.23	1.14	30.37	1.18	31.55
30	585500	Office Cleaning Services	15.26		15.26		15.26	1.54	16.80	0.65	17.45	0.68	18.13
31	585900	Other Office Maintenance	-		-		-	-	-	-	-	-	-
32	586100	Landline/Telephone/Fax	839.01		839.01		839.01	84.72	923.73	35.97	959.70	37.37	997.06
33	586200	Cellular/Mobile Phones	3,460.69		3,460.69		3,460.69	349.43	3,810.12	148.35	3,958.47	154.13	4,112.60
34	587100	Holiday Events/Picnics	-		-		-	-	-	-	-	-	-
35	587200	Meals and Entertainment	-		-		-	-	-	-	-	-	-
36	587300	Meals and Entertainment - 50% Tax Deductible	-		-		-	-	-	-	-	-	-
37	587400	Meals and Entertainment - Non Deductible	-		-		-	-	-	-	-	-	-
38	587500	Answering Service	885.85		885.85		885.85	89.45	975.30	37.97	1,013.27	39.45	1,052.73
39	587900	Other Office Expenses	199.12		199.12		199.12	20.10	219.22	8.54	227.76	8.87	236.62
40	511003	Purchased Services-Gas	47.97		47.97		47.97	4.84	52.81	2.06	54.87	2.14	57.01
41													
42		Total Office Utilities - Sewer	17,772.30	-	17,772.30	-	17,772.30	1,794.49	19,566.79	761.86	20,328.65	791.52	21,120.18

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Office Utilities

Column Calculations:
[A]- Company's total booked amounts for test year ended March 31, 2022
[B]- Amounts calculated based on Company's supporting schedules
[C]- Sum of Columns [A] & [B]
[D]- Base Case Proposed Increase calculated based on Company's supporting schedules
[E]- Sum of Columns [C] & [D]
[F]- WSIP Rate Year 1 Adjustments calculated based on Company's supporting schedules
[G]- Sum of Columns [C] & [F]
[H]- WSIP Rate Year 2 Adjustments calculated based on Company's supporting schedules
[I]- Sum of Columns [G] & [H]
[J]- WSIP Rate Year 3 Adjustments calculated based on Company's supporting schedules
[K]- Sum of Columns [I] & [J]

Schedule B-19b
Updated 09/19/2022

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule B-20b
Updated 09/19/2022

Water			Bradfield Farms - Fairfield Harbour - Treasure Cove			Base Case	Base Case	WSIP	WSIP	WSIP	WSIP	WSIP	WSIP
Miscellaneous Expense						Proposed Increase	Total After Increase	Rate Year 1 Adjustments	Rate Year 1 Revenue Requirement	Rate Year 2 Adjustments	Rate Year 2 Revenue Requirement	Rate Year 3 Adjustments	Rate Year 3 Revenue Requirement
Line No.	Account	Description	Total Per Books [A]	Pro-Forma Adjustment [B]	Historical Test Year as adjusted [C] =[A]+[B]	[D]	[E] =[C]+[D]	[F]	[G] =[C]+[E]	[H]	[I] =[G]+[H]	[J]	[K] =[I]+[J]
1	621100	Advertising	6.64	(6.64) [20]	-	-	-	-	-	-	-	-	-
2	621300	Trade Shows	-	-	-	-	-	-	-	-	-	-	-
3	621400	Promotions/ Corporate Sponsor	-	-	-	-	-	-	-	-	-	-	-
4	621500	Promotions - 50%	-	-	-	-	-	-	-	-	-	-	-
5	622100	Bank Service Charges	-	-	-	-	-	-	-	-	-	-	-
6	622200	Bank Charges - Merchant	-	-	-	-	-	-	-	-	-	-	-
7	622300	Letter of Credit Fees	-	-	-	-	-	-	-	-	-	-	-
8	623100	Donations for Registered Charities	737.85	(737.85) [20]	-	-	-	-	-	-	-	-	-
9	623200	Donations for Non-Registered Charities	-	- [20]	-	-	-	-	-	-	-	-	-
10	624100	License Fees	258.82	-	258.82	-	258.82	25.26	284.08	9.27	293.35	9.57	302.92
11	624200	Franchise Fee	-	-	-	-	-	-	-	-	-	-	-
12	624300	5% FF on Usage	-	-	-	-	-	-	-	-	-	-	-
13	625100	Penalties and Fines	-	- [20]	-	-	-	-	-	-	-	-	-
14	625200	Penalties and Fines to Government (Non-Deductible)	-	- [20]	-	-	-	-	-	-	-	-	-
15	625300	Late Fees	-	-	-	-	-	-	-	-	-	-	-
16	626100	Education and Training	886.50	-	886.50	-	886.50	86.53	973.03	31.76	1,004.79	32.79	1,037.59
17	629100	Memberships and Dues	3,226.86	(174.25) [20]	3,052.61	-	3,052.61	297.96	3,350.58	109.35	3,459.93	112.92	3,572.85
18	629200	Payroll Admin Fee	-	-	-	-	-	-	-	-	-	-	-
19	629300	Director and Board Fees	-	-	-	-	-	-	-	-	-	-	-
20	629400	Corporate Governance	-	-	-	-	-	-	-	-	-	-	-
21	629500	Credit Card Expense Clearing	(1,027.01)	-	(1,027.01)	-	(1,027.01)	(100.25)	(1,127.26)	(36.79)	(1,164.05)	(37.99)	(1,202.04)
22	629600	Credit Card/Cash Expense - Unallocated	-	-	-	-	-	-	-	-	-	-	-
23	629700	Cost Recovery	-	-	-	-	-	-	-	-	-	-	-
24	629800	Discount/ Rebate Taken	-	-	-	-	-	-	-	-	-	-	-
25	629850	Community Service	-	-	-	-	-	-	-	-	-	-	-
26	629900	Other Misc Expense	1,423.70	-	1,423.70	-	1,423.70	138.97	1,562.66	51.00	1,613.66	52.67	1,666.33
27		Total Miscellaneous Expense	<u>5,513.36</u>	<u>(918.74)</u>	<u>4,594.62</u>	<u>-</u>	<u>4,594.62</u>	<u>448.48</u>	<u>5,043.09</u>	<u>164.39</u>	<u>5,207.69</u>	<u>169.96</u>	<u>5,377.65</u>
28	591000	Accommodation/Hotel/ Lodging	822.83	-	822.83	-	822.83	80.32	903.14	29.48	932.62	30.44	963.06
29	592000	Airfare	25.74	-	25.74	-	25.74	2.51	28.25	0.92	29.17	0.95	30.12
30	593000	Transportation excl. Airfare	193.76	-	193.76	-	193.76	18.91	212.67	6.94	219.61	7.17	226.78
31	594000	Travel - Meals and Entertainment	(10.97)	-	(10.97)	-	(10.97)	(1.07)	(12.04)	(0.39)	(12.43)	(0.41)	(12.84)
32	595000	Travel - Meals and Entertainment - 50% Tax Deductible	468.47	-	468.47	-	468.47	45.73	514.20	16.78	530.98	17.33	548.31
33	596000	Travel - Meals and Entertainment - Non Deductible	-	-	-	-	-	-	-	-	-	-	-
34	599900	Other Travel	2,274.46	-	2,274.46	-	2,274.46	222.01	2,496.47	81.48	2,577.95	84.14	2,662.09
35		Total Travel Expense	<u>3,774.28</u>	<u>-</u>	<u>3,774.28</u>	<u>-</u>	<u>3,774.28</u>	<u>368.41</u>	<u>4,142.69</u>	<u>135.21</u>	<u>4,277.89</u>	<u>139.62</u>	<u>4,417.51</u>
36		Federal Protected EDIT Amortization	-	(5,199.00) [10]	(5,199.00)	-	(5,199.00)	-	(5,199.00)	-	(5,199.00)	-	(5,199.00)
37		NC State Deferred Income Tax Amortization	-	(3,386.00) [10]	(3,386.00)	-	(3,386.00)	-	(3,386.00)	-	(3,386.00)	-	(3,386.00)
38	630002	Commission Ordered Adjustments	-	-	-	-	-	-	-	-	-	-	-
39		Total Commission Ordered Adjustments	<u>-</u>	<u>(8,585.00)</u>	<u>(8,585.00)</u>	<u>-</u>	<u>(8,585.00)</u>	<u>-</u>	<u>(8,585.00)</u>	<u>-</u>	<u>(8,585.00)</u>	<u>-</u>	<u>(8,585.00)</u>
36	691000	Corporate Allocation	355,187.97	(75,789.21) [27b]	279,398.76	-	279,398.76	21,234.31	300,633.07	9,811.85	310,444.92	10,132.08	320,577.00
37	692000	Regional Allocation	43,078.44	(4,694.48) [27b]	38,383.96	-	38,383.96	2,917.18	41,301.14	1,347.96	42,649.10	1,391.95	44,041.05
38	693000	Contract Shared Services Allocation	-	-	-	-	-	-	-	-	-	-	-
39	694000	Allocation Markup	-	-	-	-	-	-	-	-	-	-	-
40		Total Allocations (CAM)	<u>398,266.41</u>	<u>(80,483.69)</u>	<u>317,782.72</u>	<u>-</u>	<u>317,782.72</u>	<u>24,151.49</u>	<u>341,934.21</u>	<u>11,159.81</u>	<u>353,094.02</u>	<u>11,524.04</u>	<u>364,618.05</u>
41	811003	Standby/ Letter of Credit Fees	-	-	-	-	-	-	-	-	-	-	-
42	816004	Interest - Other	1,427.93	-	1,427.93	-	1,427.93	139.38	1,567.31	51.15	1,618.47	52.82	1,671.29
43		Total Other Interest Expense	<u>1,427.93</u>	<u>-</u>	<u>1,427.93</u>	<u>-</u>	<u>1,427.93</u>	<u>139.38</u>	<u>1,567.31</u>	<u>51.15</u>	<u>1,618.47</u>	<u>52.82</u>	<u>1,671.29</u>
44		Total Miscellaneous Expense - Water	<u>408,981.98</u>	<u>(89,987.43)</u>	<u>318,994.55</u>	<u>-</u>	<u>318,994.55</u>	<u>25,107.75</u>	<u>344,102.30</u>	<u>11,510.76</u>	<u>355,613.07</u>	<u>11,886.44</u>	<u>367,499.51</u>

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule B-20b
Updated 09/19/2022

Sewer
Miscellaneous Expense
Bradfield Farms - Fairfield Harbour - Treasure Cove

Line No.	Account	Description	Total Per Books [A]	Pro-Forma Adjustment [B]	Historical Test Year as adjusted [C] =[A]+[B]	Proposed Increase [D]	Base Case Total After Increase [E] =[C]+[D]	WSIP Rate Year 1 Adjustments [F]	WSIP Rate Year 1 Revenue Requirement [G] =[C]+[F]	WSIP Rate Year 2 Adjustments [H]	WSIP Rate Year 2 Revenue Requirement [I] =[G]+[H]	WSIP Rate Year 3 Adjustments [J]	WSIP Rate Year 3 Revenue Requirement [K] =[I]+[J]
45	621100	Advertising	6.80	(6.80)	[20]	-	-	-	-	-	-	-	-
46	621300	Trade Shows	-	-	-	-	-	-	-	-	-	-	-
47	621400	Promotions/Corporate Sponsor	-	-	-	-	-	-	-	-	-	-	-
48	621500	Promotions - 50%	-	-	-	-	-	-	-	-	-	-	-
49	622100	Bank Service Charges	-	-	-	-	-	-	-	-	-	-	-
50	622200	Bank Charges - Merchant	-	-	-	-	-	-	-	-	-	-	-
51	622300	Letter of Credit Fees	-	-	-	-	-	-	-	-	-	-	-
52	623100	Donations for Registered Charities	755.26	(755.26)	[20]	-	-	-	-	-	-	-	-
53	623200	Donations for Non-Registered Charities	-	-	[20]	-	-	-	-	-	-	-	-
54	624100	License Fees	264.92	-	264.92	-	264.92	26.75	291.67	11.36	303.03	11.80	314.83
55	624200	Franchise Fee	-	-	-	-	-	-	-	-	-	-	-
56	624300	5% FF on Usage	-	-	-	-	-	-	-	-	-	-	-
57	625100	Penalties and Fines	-	-	[20]	-	-	-	-	-	-	-	-
58	625200	Penalties and Fines to Government (Non-Deductible)	-	-	[20]	-	-	-	-	-	-	-	-
59	625300	Late Fees	-	-	-	-	-	-	-	-	-	-	-
60	626100	Education and Training	907.43	-	907.43	-	907.43	91.62	999.05	38.90	1,037.95	40.41	1,078.36
61	629100	Memberships and Dues	3,303.02	(178.36)	[20]	-	3,124.66	315.50	3,440.16	133.95	3,574.11	139.16	3,713.27
62	629200	Payroll Admin Fee	-	-	-	-	-	-	-	-	-	-	-
63	629300	Director and Board Fees	-	-	-	-	-	-	-	-	-	-	-
64	629400	Corporate Governance	-	-	-	-	-	-	-	-	-	-	-
65	629500	Credit Card Expense Clearing	(1,051.25)	-	(1,051.25)	-	(1,051.25)	(106.15)	(1,157.40)	(45.06)	(1,202.46)	(46.82)	(1,249.28)
66	629600	Credit Card/Cash Expense - Unallocated	-	-	-	-	-	-	-	-	-	-	-
67	629700	Cost Recovery	-	-	-	-	-	-	-	-	-	-	-
68	629800	Discount/Rebate Taken	-	-	-	-	-	-	-	-	-	-	-
69	629850	Community Service	-	-	-	-	-	-	-	-	-	-	-
70	629900	Other Misc Expense	1,424.31	-	1,424.31	-	1,424.31	143.81	1,568.13	61.06	1,629.18	63.43	1,692.62
71		Total Miscellaneous Expense	<u>5,610.49</u>	<u>(940.42)</u>	<u>4,670.07</u>	<u>-</u>	<u>4,670.07</u>	<u>471.54</u>	<u>5,141.61</u>	<u>200.20</u>	<u>5,341.81</u>	<u>207.99</u>	<u>5,549.80</u>
72	591000	Accommodation/Hotel/Lodging	842.24	-	842.24	-	842.24	85.04	927.29	36.11	963.39	37.51	1,000.90
73	592000	Airfare	26.34	-	26.34	-	26.34	2.66	29.00	1.13	30.13	1.17	31.31
74	593000	Transportation excl. Airfare	198.33	-	198.33	-	198.33	20.03	218.36	8.50	226.86	8.83	235.69
75	594000	Travel - Meals and Entertainment	(11.23)	-	(11.23)	-	(11.23)	(1.13)	(12.36)	(0.48)	(12.84)	(0.50)	(13.34)
76	595000	Travel - Meals and Entertainment - 50% Tax Deductible	479.53	-	479.53	-	479.53	48.42	527.95	20.56	548.50	21.36	569.86
77	596000	Travel - Meals and Entertainment - Non Deductible	-	-	-	-	-	-	-	-	-	-	-
78	599000	Other Travel	2,328.14	-	2,328.14	-	2,328.14	235.08	2,563.21	99.80	2,663.02	103.69	2,766.71
79		Total Travel Expense	<u>3,863.36</u>	<u>-</u>	<u>3,863.36</u>	<u>-</u>	<u>3,863.36</u>	<u>390.09</u>	<u>4,253.45</u>	<u>165.61</u>	<u>4,419.06</u>	<u>172.06</u>	<u>4,591.12</u>
80		Federal Protected EDIT Amortization	-	(5,321.00)	[10]	-	(5,321.00)	-	(5,321.00)	-	(5,321.00)	-	(5,321.00)
81		NC State Deferred Income Tax Amortization	-	(5,465.00)	[10]	-	(5,465.00)	-	(5,465.00)	-	(5,465.00)	-	(5,465.00)
82	630002	Commission Ordered Adjustments	-	-	-	-	-	-	-	-	-	-	-
83		Total Commission Ordered Adjustments	<u>-</u>	<u>(8,786.00)</u>	<u>(8,786.00)</u>	<u>-</u>	<u>(8,786.00)</u>	<u>-</u>	<u>(8,786.00)</u>	<u>-</u>	<u>(8,786.00)</u>	<u>-</u>	<u>(8,786.00)</u>
80	691000	Corporate Allocation	363,570.63	(77,577.89)	[27b]	285,992.74	285,992.74	21,735.45	307,728.19	11,981.81	319,710.00	12,448.34	332,158.34
81	692000	Regional Allocation	44,095.11	(4,805.26)	[27b]	39,289.85	39,289.85	2,986.03	42,275.88	1,646.07	43,921.95	1,710.16	45,632.11
82	693000	Contract Shared Services Allocation	-	-	-	-	-	-	-	-	-	-	-
83	694000	Allocation Markup	-	-	-	-	-	-	-	-	-	-	-
84		Total Allocations (CAM)	<u>407,665.74</u>	<u>(82,383.15)</u>	<u>325,282.59</u>	<u>-</u>	<u>325,282.59</u>	<u>24,721.48</u>	<u>350,004.07</u>	<u>13,627.88</u>	<u>363,631.95</u>	<u>14,158.50</u>	<u>377,790.45</u>
85	811003	Standby/Letter of Credit Fees	-	-	-	-	-	-	-	-	-	-	-
86	816004	Interest - Other	1,461.63	-	1,461.63	-	1,461.63	147.58	1,609.22	62.66	1,671.88	65.10	1,736.97
87		Total Other Interest Expense	<u>1,461.63</u>	<u>-</u>	<u>1,461.63</u>	<u>-</u>	<u>1,461.63</u>	<u>147.58</u>	<u>1,609.22</u>	<u>62.66</u>	<u>1,671.88</u>	<u>65.10</u>	<u>1,736.97</u>
88		Total Miscellaneous Expense - Sewer	<u>418,601.23</u>	<u>(92,109.57)</u>	<u>326,491.65</u>	<u>-</u>	<u>326,491.65</u>	<u>25,730.69</u>	<u>352,222.35</u>	<u>14,056.35</u>	<u>366,278.69</u>	<u>14,603.65</u>	<u>380,882.34</u>

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule B-20b
Updated 09/19/2022

Miscellaneous Expense

Column Calculations:
[A]- Company's total booked amounts for test year ended March 31, 2022
[B]- Amounts calculated based on Company's supporting schedules
[C]- Sum of Columns [A] & [B]
[D]- Base Case Proposed Increase calculated based on Company's supporting schedules
[E]- Sum of Columns [C] & [D]
[F]- WSIP Rate Year 1 Adjustments calculated based on Company's supporting schedules
[G]- Sum of Columns [C] & [F]
[H]- WSIP Rate Year 2 Adjustments calculated based on Company's supporting schedules
[I]- Sum of Columns [G] & [H]
[J]- WSIP Rate Year 3 Adjustments calculated based on Company's supporting schedules
[K]- Sum of Columns [I] & [J]

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule B-21b
Updated 09/19/2022

Water
Depreciation Expense
Bradfield Farms - Fairfield Harbour - Treasure Cove

Depreciation Expense			Base Case		Base Case		WSIP		WSIP		WSIP		WSIP		WSIP	
Line No.	Account	Description	Total Per Books	Pro-Forma Adjustment	Historical Test Year as adjusted	Proposed Increase	Total After Increase	Rate Year 1 Adjustments	Rate Year 1 Revenue Requirement	Rate Year 2 Adjustments	Rate Year 2 Revenue Requirement	Rate Year 3 Adjustments	Rate Year 3 Revenue Requirement	Rate Year 3 Adjustments	Rate Year 3 Revenue Requirement	
			[A]	[B]	[C] =[A]+[B]	[D]	[E] =[C]+[D]	[F]	[G] =[C]+[F]	[H]	[I] =[G]+[H]	[J]	[K] =[I]+[J]			
1	710201	Dep - Organization	1,787.26	734.38 [2]	2,521.64	-	2,521.64	-	2,521.64	-	2,521.64	-	2,521.64	-	2,521.64	
2	710202	Dep - Franchises	889.43	391.57 [2]	1,281.00	-	1,281.00	-	1,281.00	-	1,281.00	-	1,281.00	-	1,281.00	
3	710203	Dep - Struct and Improv General Plant	44.87	0.56 [2]	45.43	-	45.43	6.89	52.32	6.62	58.94	6.62	65.56	-	65.56	
4	710204	Dep - Struct and Improv Service Supplies	3,905.47	412.16 [2]	4,317.64	-	4,317.64	218.10	4,535.73	1,087.98	5,623.71	836.95	6,460.66	-	6,460.66	
5	710205	Dep - Struct and Improv Water Treat Plt	2,925.38	22.33 [2]	2,947.71	-	2,947.71	25.12	2,972.83	24.11	2,996.94	24.11	3,021.05	-	3,021.05	
6	710206	Dep - Struct and Improv Trans Dist Plt	-	0.00 [2]	9.21	-	9.21	-	9.21	-	9.21	-	9.21	-	9.21	
7	710207	Dep - Struct and Improv Collect Plant	-	-	-	-	-	-	-	-	-	-	-	-	-	
8	710208	Dep - Struct and Improv Pump Plant	1.55	(1.55) [2]	-	-	-	-	-	-	-	-	-	-	-	
9	710209	Dep - Struct and Improv Treatment Plant	-	-	-	-	-	-	-	-	-	-	-	-	-	
10	710210	Dep - Struct and Improv Reclaim WTP	-	-	-	-	-	-	-	-	-	-	-	-	-	
11	710211	Dep - Struct and Improv Reclaim Wtr Dist	-	-	-	-	-	-	-	-	-	-	-	-	-	
12	710212	Dep - Struct and Improv Production	-	-	-	-	-	-	-	-	-	-	-	-	-	
13	710213	Dep - Struct and Improv Natural Gas	-	-	-	-	-	-	-	-	-	-	-	-	-	
14	710214	Dep - Struct and Improv Transmissions	-	-	-	-	-	-	-	-	-	-	-	-	-	
15	710215	Dep - Struct and Improv Distribution	-	-	-	-	-	-	-	-	-	-	-	-	-	
16	710216	Dep - Struct and Improv Electrical	-	-	-	-	-	-	-	-	-	-	-	-	-	
17	710217	Dep - Struct and Improv Propane	-	-	-	-	-	-	-	-	-	-	-	-	-	
18	710218	Dep - Struct and Improv Municipal	-	-	-	-	-	-	-	-	-	-	-	-	-	
19	710219	Dep - Struct and Improv Biomass	-	-	-	-	-	-	-	-	-	-	-	-	-	
20	710220	Dep - Struct and Improv Office	2,010.52	6,555.68 [2]	8,566.20	-	8,566.20	-	8,566.20	-	8,566.20	-	8,566.20	-	8,566.20	
21	710221	Dep - Collecting Reservoirs	-	-	-	-	-	-	-	-	-	-	-	-	-	
22	710222	Dep - Lake, River, Other Intakes	-	-	-	-	-	-	-	-	-	-	-	-	-	
23	710223	Dep - Wells and Springs	10,365.96	(143.24) [2]	10,222.72	-	10,222.72	155.37	10,378.10	149.16	10,527.26	149.16	10,676.42	-	10,676.42	
24	710224	Dep - Infiltration Gallery	-	-	-	-	-	-	-	-	-	-	-	-	-	
25	710225	Dep - Supply Mains	74.93	35.94 [2]	110.87	-	110.87	11.41	122.28	10.96	133.24	10.96	144.20	-	144.20	
26	710226	Dep - Power Generation Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-	
27	710227	Dep - Electric Pump Equip Src Pump	6,124.88	2,964.84 [2]	9,089.72	-	9,089.72	543.62	9,633.35	521.88	10,155.23	521.88	10,677.11	-	10,677.11	
28	710228	Dep - Electric Pump Equip WTP	17,261.54	(3,902.04) [2]	13,359.50	-	13,359.50	404.36	13,763.86	388.19	14,152.05	388.19	14,540.24	-	14,540.24	
29	710229	Dep - Electric Pump Equip Trans Dist	7,101.56	1,956.60 [2]	9,058.17	-	9,058.17	526.49	9,584.66	505.43	10,090.09	505.43	10,595.52	-	10,595.52	
30	710230	Dep - Water Treatment Equipment	4,055.61	(228.88) [2]	3,826.73	-	3,826.73	116.68	3,943.40	112.01	4,055.41	112.01	4,167.43	-	4,167.43	
31	710231	Dep - Dist Resv and Standpipes	17,161.69	1,429.81 [2]	18,591.50	-	18,591.50	33,901.87	52,493.36	7,494.90	59,988.26	902.56	60,890.82	-	60,890.82	
32	710232	Dep - Trans and Distr Mains	19,210.13	(17.21) [2]	19,192.92	-	19,192.92	954.83	20,147.74	1,553.84	21,701.59	1,860.37	23,561.95	-	23,561.95	
33	710233	Dep - Service Lines	16,866.58	752.41 [2]	17,618.99	-	17,618.99	1,604.81	19,223.80	1,540.62	20,764.41	1,540.62	22,305.03	-	22,305.03	
34	710234	Dep - Meters	5,362.09	1,254.81 [2]	6,616.90	-	6,616.90	5,369.14	11,986.04	18,409.23	30,395.27	16,702.54	47,097.81	-	47,097.81	
35	710235	Dep - Meter Installations	5,418.00	804.70 [2]	6,222.70	-	6,222.70	261.82	6,484.52	251.34	6,735.86	251.34	6,987.20	-	6,987.20	
36	710236	Dep - Hydrants	4,279.75	2,707.42 [2]	6,987.17	-	6,987.17	160.10	7,147.27	153.69	7,300.97	153.69	7,454.66	-	7,454.66	
37	710237	Dep - Backflow Prevention Devices	13.80	1.62 [2]	15.42	-	15.42	3.88	19.30	3.73	23.03	3.73	26.76	-	26.76	
38	710238	Dep - Power Gen Equip Coll Plt	-	-	-	-	-	-	-	-	-	-	-	-	-	
39	710239	Dep - Power Gen Equip Pump Plt	-	-	-	-	-	-	-	-	-	-	-	-	-	
40	710240	Dep - Power Gen Equip Treat Plt	-	-	-	-	-	-	-	-	-	-	-	-	-	
41	710241	Dep - Sewer Force Main	-	-	-	-	-	-	-	-	-	-	-	-	-	
42	710242	Dep - Sewer Gravity Main	-	-	-	-	-	-	-	-	-	-	-	-	-	
43	710243	Dep - Manholes	-	-	-	-	-	-	-	-	-	-	-	-	-	
44	710244	Dep - Special Collection Structures	-	-	-	-	-	-	-	-	-	-	-	-	-	
45	710245	Dep - Service to Customers	-	-	-	-	-	-	-	-	-	-	-	-	-	
46	710246	Dep - Flow Measure Devices	-	-	-	-	-	-	-	-	-	-	-	-	-	
47	710247	Dep - Flow Measure Install	-	-	-	-	-	-	-	-	-	-	-	-	-	
48	710248	Dep - Receiving Wells	-	-	-	-	-	-	-	-	-	-	-	-	-	
49	710249	Dep - Pumping Equip Pump Plt	-	-	-	-	-	-	-	-	-	-	-	-	-	
50	710250	Dep - Pumping Equip Reclaim WTP	-	-	-	-	-	-	-	-	-	-	-	-	-	
51	710251	Dep - Pumping Equip Rd Wtr Dist	-	-	-	-	-	-	-	-	-	-	-	-	-	
52	710252	Dep - Treat/Disp Equip Lagoon	-	-	-	-	-	-	-	-	-	-	-	-	-	
53	710253	Dep - Treat/Disp Equip Trt Plt	-	-	-	-	-	-	-	-	-	-	-	-	-	
54	710254	Dep - Treat/Disp Equip Rclm Wtr	-	-	-	-	-	-	-	-	-	-	-	-	-	
55	710255	Dep - Plant Sewers Treatment Plt	-	-	-	-	-	-	-	-	-	-	-	-	-	
56	710256	Dep - Plant Sewers Reclaim Wtr	-	-	-	-	-	-	-	-	-	-	-	-	-	
57	710257	Dep - Outfall Lines	-	-	-	-	-	-	-	-	-	-	-	-	-	
58	710258	Dep - Reservoirs	-	-	-	-	-	-	-	-	-	-	-	-	-	
59	710259	Dep - House Regulators	-	-	-	-	-	-	-	-	-	-	-	-	-	
60	710260	Dep - House Regulatory Install	-	-	-	-	-	-	-	-	-	-	-	-	-	
61	710261	Dep - Reuse Services	-	-	-	-	-	-	-	-	-	-	-	-	-	
62	710262	Dep - Reuse Mtr/Installations	-	-	-	-	-	-	-	-	-	-	-	-	-	
63	710263	Dep - Reuse Dist Reservoirs	-	-	-	-	-	-	-	-	-	-	-	-	-	
64	710264	Dep - Reuse Transmission and Dist	-	-	-	-	-	-	-	-	-	-	-	-	-	
65	710265	Dep - Processing Plant	-	-	-	-	-	-	-	-	-	-	-	-	-	
66	710266	Dep - Maintenance Structure and Improv	-	-	-	-	-	-	-	-	-	-	-	-	-	
67	710267	Dep - Other and Misc Equip Intangible Plt	-	-	-	-	-	-	-	-	-	-	-	-	-	
68	710268	Dep - Other and Misc Equip Source Supply	-	-	-	-	-	-	-	-	-	-	-	-	-	
69	710269	Dep - Other and Misc Equip WTP	-	-	-	-	-	-	-	-	-	-	-	-	-	
70	710270	Dep - Other and Misc Equip Trans Dist	-	-	-	-	-	-	-	-	-	-	-	-	-	

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule B-21b
Updated 09/19/2022

Water Depreciation Expense			Bradfield Farms - Fairfield Harbour - Treasure Cove			Base Case	Base Case	WSIP	WSIP	WSIP	WSIP	WSIP	WSIP
Line No.	Account	Description	Total Per Books	Pro-Forma Adjustment	Historical Test Year as adjusted	Proposed Increase	Total After Increase	Rate Year 1 Adjustments	Rate Year 1 Revenue Requirement	Rate Year 2 Adjustments	Rate Year 2 Revenue Requirement	Rate Year 3 Adjustments	Rate Year 3 Revenue Requirement
			[A]	[B]	[C] =[A]+[B]	[D]	[E] =[C]+[D]	[F]	[G] =[C]+[F]	[H]	[I] =[G]+[H]	[J]	[K] =[I]+[J]
71	710271	Dep - Other Tangible Plant	-	-	-	-	-	-	-	-	-	-	-
72	710272	Dep - Other Plant Collection	-	-	-	-	-	-	-	-	-	-	-
73	710273	Dep - Other Plant Pump	-	-	-	-	-	-	-	-	-	-	-
74	710274	Dep - Other Plant Treatment	-	-	-	-	-	-	-	-	-	-	-
75	710275	Dep - Other Plant Reclaim Water Trt	-	-	-	-	-	-	-	-	-	-	-
76	710276	Dep - Other Plant Reclaim Water Dist	-	-	-	-	-	-	-	-	-	-	-
77	710277	Dep - Other Plant	-	-	-	-	-	-	-	-	-	-	-
78	710278	Dep - Plant Alloc	-	-	-	-	-	-	-	-	-	-	-
79	710279	Dep - Domestic Water	-	-	-	-	-	-	-	-	-	-	-
80	710280	Dep - Irrigation Water	-	-	-	-	-	-	-	-	-	-	-
81	710281	Dep - Geothermal	-	-	-	-	-	-	-	-	-	-	-
82	710282	Dep - District Energy System	-	-	-	-	-	-	-	-	-	-	-
83	710283	Dep - Concession	-	-	-	-	-	-	-	-	-	-	-
84	710284	Dep - DES - Startup Costs	-	-	-	-	-	-	-	-	-	-	-
85	710285	Dep - DES - Project Management	-	-	-	-	-	-	-	-	-	-	-
86	710286	Dep - DES - Temporary Energy Centre	-	-	-	-	-	-	-	-	-	-	-
87	710287	Dep - DES - Distribution Piping System	-	-	-	-	-	-	-	-	-	-	-
88	710288	Dep - DES - Energy Transfer Station	-	-	-	-	-	-	-	-	-	-	-
89	710289	Dep - DES - Project Development	-	-	-	-	-	-	-	-	-	-	-
90	710290	Dep - DES - Engineer	-	-	-	-	-	-	-	-	-	-	-
91	710291	Dep - DES - Low Rise Connection	-	-	-	-	-	-	-	-	-	-	-
92	710292	Dep - Non-Utility Property	-	-	-	-	-	-	-	-	-	-	-
93	710293	Dep - Plant Held for Future Use	-	-	-	-	-	-	-	-	-	-	-
94	710294	Dep - Disallowed Utility Plant	-	-	-	-	-	-	-	-	-	-	-
95	710299	Dep - Land	-	-	-	-	-	-	-	-	-	-	-
96	710301	Dep - Building	-	-	-	-	-	-	-	-	-	-	-
97	710302	Dep - Leasehold Improvement	-	-	-	-	-	-	-	-	-	-	-
98	710303	Dep - Office Furniture	619.30	3,926.61	[2]	4,545.91	4,545.91	-	4,545.91	-	4,545.91	-	4,545.91
99	710304	Dep - Office Equipment	-	-	-	-	-	-	-	-	-	-	-
100	710305	Dep - Stores Equipment	11.62	0.93	[2]	12.55	12.55	0.78	13.33	0.75	14.07	0.75	14.82
101	710306	Dep - Lab Equipment	1,188.04	268.51	[2]	1,456.55	1,456.55	32.20	1,488.75	30.91	1,519.66	30.91	1,550.58
102	710307	Dep - Rental Equipment	-	-	-	-	-	-	-	-	-	-	-
103	710308	Dep - Tool Shop Equipment	4,890.76	276.35	[2]	5,167.11	5,167.11	78.88	5,245.99	75.73	5,321.72	75.73	5,397.45
104	710309	Dep - Power Operated Equipment	972.09	401.27	[2]	1,373.36	1,373.36	111.39	1,484.75	106.93	1,591.68	106.93	1,698.61
105	710310	Dep - Communications Equipment	5,998.92	2,342.55	[2]	8,341.47	8,341.47	741.84	9,083.31	712.16	9,795.48	712.16	10,507.64
106	710311	Dep - Misc Equipment	30.24	(12.40)	[2]	17.84	17.84	3.23	21.07	3.10	24.16	3.10	27.26
107	710401	Dep - Vehicles	26,052.07	17,647.95	[2]	43,700.02	43,700.02	-	43,700.02	-	43,700.02	-	43,700.02
108	710501	Dep - Computer Hardware	128.81	(128.81)	[2]	-	-	-	-	-	-	-	-
109	710502	Dep - Desktop/Laptop Computers	-	-	-	-	-	-	-	-	-	-	-
110	710503	Dep - Mainframe Computers	-	-	-	-	-	-	-	-	-	-	-
111	710504	Dep - Mini Comp Wtr	816.85	(816.85)	[2]	-	-	-	-	-	-	-	-
112	710601	Dep - Computer Software	-	-	-	-	-	-	-	-	-	-	-
113	710602	Dep - Comp Systems	-	-	-	-	-	-	-	-	-	-	-
114	710603	Dep - Micro Systems	-	-	-	-	-	-	-	-	-	-	-
115													
116		Total Depreciation Expense - Water	165,578.91	39,638.03	205,216.94	-	205,216.94	45,232.80	250,449.74	33,143.27	283,593.01	24,899.73	308,492.75

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule B-21b
Updated 09/19/2022

Sewer
Depreciation Expense
Bradfield Farms - Fairfield Harbour - Treasure Cove

Line No.	Account	Description	Total Per Books [A]	Pro-Forma Adjustment [B]	Historical Test Year as adjusted [C] =[A]+[B]	Base Case Proposed Increase [D]	Base Case Total After Increase [E] =[C]+[D]	WSIP Rate Year 1 Adjustments [F]	WSIP Rate Year 1 Revenue Requirement [G] =[C]+[F]	WSIP Rate Year 2 Adjustments [H]	WSIP Rate Year 2 Revenue Requirement [I] =[G]+[H]	WSIP Rate Year 3 Adjustments [J]	WSIP Rate Year 3 Revenue Requirement [K] =[I]+[J]
116	710201	Dep - Organization	625.21	(258.16) [2]	367.06	-	367.06	-	367.06	-	367.06	-	367.06
117	710202	Dep - Franchises	-	67.82 [2]	1,048.45	-	1,048.45	-	1,048.45	-	1,048.45	-	1,048.45
118	710203	Dep - Struct and Improv General Plant	5,531.11	(161.28) [2]	5,369.83	-	5,369.83	349.54	5,719.36	335.56	6,054.92	335.56	6,390.48
119	710204	Dep - Struct and Improv Service Supplies	4.27	(4.27) [2]	-	-	-	-	-	-	-	-	-
120	710205	Dep - Struct and Improv Water Treat Plt	-	-	-	-	-	-	-	-	-	-	-
121	710206	Dep - Struct and Improv Trans Dist Plt	-	-	-	-	-	-	-	-	-	-	-
122	710207	Dep - Struct and Improv Collect Plant	1.26	1.80 [2]	3.06	-	3.06	0.79	3.85	0.76	4.61	0.76	5.37
123	710208	Dep - Struct and Improv Pump Plant	40,327.35	(6,500.85) [2]	33,826.50	-	33,826.50	51.38	33,877.88	5,968.73	39,846.61	4,277.47	44,124.08
124	710209	Dep - Struct and Improv Treatment Plant	53,583.39	(7,622.65) [2]	45,960.74	-	45,960.74	273.58	46,234.31	96,295.32	142,529.63	48,278.98	190,808.61
125	710210	Dep - Struct and Improv Reclaim Wtr Dist	-	-	-	-	-	-	-	-	-	-	-
126	710211	Dep - Struct and Improv Reclaim Wtr Dist	53.68	8.25 [2]	61.93	-	61.93	-	61.93	-	61.93	-	61.93
127	710212	Dep - Struct and Improv Production	-	-	-	-	-	-	-	-	-	-	-
128	710213	Dep - Struct and Improv Natural Gas	-	-	-	-	-	-	-	-	-	-	-
129	710214	Dep - Struct and Improv Transmissions	-	-	-	-	-	-	-	-	-	-	-
130	710215	Dep - Struct and Improv Distribution	-	-	-	-	-	-	-	-	-	-	-
131	710216	Dep - Struct and Improv Electrical	-	-	-	-	-	-	-	-	-	-	-
132	710217	Dep - Struct and Improv Propane	-	-	-	-	-	-	-	-	-	-	-
133	710218	Dep - Struct and Improv Municipal	-	-	-	-	-	-	-	-	-	-	-
134	710219	Dep - Struct and Improv Biomass	-	-	-	-	-	-	-	-	-	-	-
135	710220	Dep - Struct and Improv Office	4,003.14	9,640.29 [2]	13,643.43	-	13,643.43	-	13,643.43	-	13,643.43	-	13,643.43
136	710221	Dep - Collecting Reservoirs	-	-	-	-	-	-	-	-	-	-	-
137	710222	Dep - Lake, River, Other Intakes	-	-	-	-	-	-	-	-	-	-	-
138	710223	Dep - Wells and Springs	-	-	-	-	-	-	-	-	-	-	-
139	710224	Dep - Infiltration Gallery	-	-	-	-	-	-	-	-	-	-	-
140	710225	Dep - Supply Mains	-	-	-	-	-	-	-	-	-	-	-
141	710226	Dep - Power Generation Equipment	-	-	-	-	-	-	-	-	-	-	-
142	710227	Dep - Electric Pump Equip Src Pump	10.34	(373.06) [2]	(362.72)	-	(362.72)	-	(362.72)	-	(362.72)	-	(362.72)
143	710228	Dep - Electric Pump Equip WTP	-	-	-	-	-	-	-	-	-	-	-
144	710229	Dep - Electric Pump Equip Trans Dist	-	-	-	-	-	-	-	-	-	-	-
145	710230	Dep - Water Treatment Equipment	11,926.87	11,691.93 [2]	23,618.80	-	23,618.80	-	23,618.80	-	23,618.80	-	23,618.80
146	710231	Dep - Dist Resv and Standpipes	-	(6.63) [2]	100.94	-	100.94	-	100.94	-	100.94	-	100.94
147	710232	Dep - Trans and Distr Mains	355.70	(188.83) [2]	166.87	-	166.87	-	166.87	-	166.87	-	166.87
148	710233	Dep - Service Lines	-	-	-	-	-	-	-	-	-	-	-
149	710234	Dep - Meters	-	-	-	-	-	-	-	-	-	-	-
150	710235	Dep - Meter Installations	-	-	-	-	-	-	-	-	-	-	-
151	710236	Dep - Hydrants	-	-	-	-	-	-	-	-	-	-	-
152	710237	Dep - Backflow Prevention Devices	-	-	-	-	-	-	-	-	-	-	-
153	710238	Dep - Power Gen Equip Coll Plt	-	-	-	-	-	-	-	-	-	-	-
154	710239	Dep - Power Gen Equip Pump Plt	4,843.54	6,486.73 [2]	11,330.27	-	11,330.27	1,035.24	12,365.52	993.83	13,359.35	993.83	14,353.19
155	710240	Dep - Power Gen Equip Treat Plt	-	-	-	-	-	-	-	-	-	-	-
156	710241	Dep - Sewer Force Main	3,369.02	(337.68) [2]	3,031.34	-	3,031.34	152.02	3,183.36	145.93	3,329.29	145.93	3,475.23
157	710242	Dep - Sewer Gravity Main	55,174.75	(1,815.66) [2]	53,359.09	-	53,359.09	9,742.80	63,101.89	1,271.51	64,373.40	3,905.30	68,278.71
158	710243	Dep - Manholes	656.66	(119.62) [2]	537.04	-	537.04	73.96	610.99	71.00	681.99	71.00	753.00
159	710244	Dep - Special Collection Structures	10.36	5.14 [2]	15.50	-	15.50	-	15.50	-	15.50	-	15.50
160	710245	Dep - Service to Customers	2,893.83	1,732.83 [2]	4,626.66	-	4,626.66	1,438.55	6,065.21	1,381.01	7,446.21	1,381.01	8,827.22
161	710246	Dep - Flow Measure Devices	607.19	105.53 [2]	712.72	-	712.72	6.22	718.94	5.97	724.92	5.97	730.89
162	710247	Dep - Flow Measure Install	-	-	-	-	-	-	-	-	-	-	-
163	710248	Dep - Receiving Wells	-	-	-	-	-	-	-	-	-	-	-
164	710249	Dep - Pumping Equip Pump Plt	106,175.79	12,112.64 [2]	118,288.43	-	118,288.43	1,818.33	120,106.77	1,745.60	121,852.36	1,745.60	123,597.96
165	710250	Dep - Pumping Equip Reclaim WTP	7,543.45	6,339.69 [2]	13,883.14	-	13,883.14	1,667.34	15,550.48	1,600.64	17,151.12	1,600.64	18,751.77
166	710251	Dep - Pumping Equip Rd Wtr Dist	-	-	-	-	-	-	-	-	-	-	-
167	710252	Dep - Treat/Disp Equip Lagoon	1.39	0.01 [2]	1.40	-	1.40	-	1.40	-	1.40	-	1.40
168	710253	Dep - Treat/Disp Equip Trt Plt	70,271.71	537.82 [2]	70,809.53	-	70,809.53	2,283.86	73,093.39	2,258.61	75,351.99	606.02	75,958.01
169	710254	Dep - Treat/Disp Equip Rclm Wtr	-	-	-	-	-	-	-	-	-	-	-
170	710255	Dep - Plant Sewers Treatment Plt	9,869.72	(18.54) [2]	9,851.18	-	9,851.18	186.45	10,037.63	178.99	10,216.63	178.99	10,395.62
171	710256	Dep - Plant Sewers Reclaim Wtr	-	-	-	-	-	-	-	-	-	-	-
172	710257	Dep - Outfall Lines	264.37	494.98 [2]	759.35	-	759.35	154.37	913.72	148.20	1,061.91	148.20	1,210.11
173	710258	Dep - Reservoirs	-	-	-	-	-	-	-	-	-	-	-
174	710259	Dep - House Regulators	-	-	-	-	-	-	-	-	-	-	-
175	710260	Dep - House Regulatory Install	-	-	-	-	-	-	-	-	-	-	-
176	710261	Dep - Reuse Services	-	-	-	-	-	-	-	-	-	-	-
177	710262	Dep - Reuse Mtr/Installations	-	-	-	-	-	-	-	-	-	-	-
178	710263	Dep - Reuse Dist Reservoirs	55.26	-	55.26	-	55.26	-	55.26	-	55.26	-	55.26
179	710264	Dep - Reuse Transmission and Dist	49.82	0.53 [2]	50.35	-	50.35	6.63	56.98	6.37	63.35	6.37	69.71
180	710265	Dep - Processing Plant	-	-	-	-	-	-	-	-	-	-	-
181	710266	Dep - Maintenance Structure and Improv	-	-	-	-	-	-	-	-	-	-	-
182	710267	Dep - Other and Misc Equip Intangible Plt	-	-	-	-	-	-	-	-	-	-	-
183	710268	Dep - Other and Misc Equip Source Supply	-	-	-	-	-	-	-	-	-	-	-
184	710269	Dep - Other and Misc Equip WTP	-	-	-	-	-	-	-	-	-	-	-
185	710270	Dep - Other and Misc Equip Trans Dist	-	-	-	-	-	-	-	-	-	-	-

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule B-21b
Updated 09/19/2022

Sewer
Depreciation Expense
Bradfield Farms - Fairfield Harbour - Treasure Cove

Line No.	Account	Description	Total Per Books [A]	Pro-Forma Adjustment [B]	Historical Test Year as adjusted [C] =[A]+[B]	Base Case Proposed Increase [D]	Base Case Total After Increase [E] =[C]+[D]	WSIP Rate Year 1 Adjustments [F]	WSIP Rate Year 1 Revenue Requirement [G] =[C]+[F]	WSIP Rate Year 2 Adjustments [H]	WSIP Rate Year 2 Revenue Requirement [I] =[G]+[H]	WSIP Rate Year 3 Adjustments [J]	WSIP Rate Year 3 Revenue Requirement [K] =[I]+[J]
186	710271	Dep - Other Tangible Plant	-	1,983.36	1,983.36	-	1,983.36	-	1,983.36	-	1,983.36	-	1,983.36
187	710272	Dep - Other Plant Collection	(4.84)	0.36 [2]	(4.48)	-	(4.48)	-	(4.48)	-	(4.48)	-	(4.48)
188	710273	Dep - Other Plant Pump	64.76	21.57 [2]	86.33	-	86.33	3.71	90.04	3.56	93.61	3.56	97.17
189	710274	Dep - Other Plant Treatment	-	-	-	-	-	-	-	-	-	-	-
190	710275	Dep - Other Plant Reclaim Water Trt	196.02	122.94 [2]	318.96	-	318.96	25.36	344.32	24.34	368.66	24.34	393.00
191	710276	Dep - Other Plant Reclaim Water Dist	-	-	-	-	-	-	-	-	-	-	-
192	710277	Dep - Other Plant	-	-	-	-	-	-	-	-	-	-	-
193	710278	Dep - Plant Alloc	-	-	-	-	-	-	-	-	-	-	-
194	710279	Dep - Domestic Water	-	-	-	-	-	-	-	-	-	-	-
195	710280	Dep - Irrigation Water	-	-	-	-	-	-	-	-	-	-	-
196	710281	Dep - Geothermal	-	-	-	-	-	-	-	-	-	-	-
197	710282	Dep - District Energy System	-	-	-	-	-	-	-	-	-	-	-
198	710283	Dep - Concession	-	-	-	-	-	-	-	-	-	-	-
199	710284	Dep - DES - Startup Costs	-	-	-	-	-	-	-	-	-	-	-
200	710285	Dep - DES - Project Management	-	-	-	-	-	-	-	-	-	-	-
201	710286	Dep - DES - Temporary Energy Centre	-	-	-	-	-	-	-	-	-	-	-
202	710287	Dep - DES - Distribution Piping System	-	-	-	-	-	-	-	-	-	-	-
203	710288	Dep - DES - Energy Transfer Station	-	-	-	-	-	-	-	-	-	-	-
204	710289	Dep - DES - Project Development	-	-	-	-	-	-	-	-	-	-	-
205	710290	Dep - DES - Engineer	-	-	-	-	-	-	-	-	-	-	-
206	710291	Dep - DES - Low Rise Connection	-	-	-	-	-	-	-	-	-	-	-
207	710292	Dep - Non-Utility Property	-	-	-	-	-	-	-	-	-	-	-
208	710293	Dep - Plant Held for Future Use	-	-	-	-	-	-	-	-	-	-	-
209	710294	Dep - Disallowed Utility Plant	-	-	-	-	-	-	-	-	-	-	-
210	710299	Dep - Land	-	-	-	-	-	-	-	-	-	-	-
211	710301	Dep - Building	-	-	-	-	-	-	-	-	-	-	-
212	710302	Dep - Leasehold Improvement	-	-	-	-	-	-	-	-	-	-	-
213	710303	Dep - Office Furniture	344.91	4,024.35 [2]	4,369.26	-	4,369.26	-	4,369.26	-	4,369.26	-	4,369.26
214	710304	Dep - Office Equipment	-	-	-	-	-	-	-	-	-	-	-
215	710305	Dep - Stores Equipment	59.08	35.03 [2]	94.11	-	94.11	0.32	94.43	0.30	94.73	0.30	95.03
216	710306	Dep - Lab Equipment	483.57	190.04 [2]	673.61	-	673.61	1.96	675.56	1.88	677.44	1.88	679.32
217	710307	Dep - Rental Equipment	-	-	-	-	-	-	-	-	-	-	-
218	710308	Dep - Tool Shop Equipment	894.83	214.17 [2]	1,109.00	-	1,109.00	53.57	1,162.57	51.43	1,213.99	51.43	1,265.42
219	710309	Dep - Power Operated Equipment	4,983.80	453.56 [2]	5,437.36	-	5,437.36	101.57	5,538.93	97.51	5,636.44	97.51	5,733.95
220	710310	Dep - Communications Equipment	2,274.41	4,136.79 [2]	6,411.21	-	6,411.21	910.37	7,321.57	873.95	8,195.52	873.95	9,069.47
221	710311	Dep - Misc Equipment	813.40	1,506.43 [2]	2,319.83	-	2,319.83	278.15	2,597.98	267.02	2,865.00	267.02	3,132.02
222	710401	Dep - Vehicles	26,562.90	18,168.47 [2]	44,731.37	-	44,731.37	-	44,731.37	-	44,731.37	-	44,731.37
223	710501	Dep - Computer Hardware	131.74	-	131.74	-	131.74	-	131.74	-	131.74	-	131.74
224	710502	Dep - Desktop/Laptop Computers	-	-	-	-	-	-	-	-	-	-	-
225	710503	Dep - Mainframe Computers	-	-	-	-	-	-	-	-	-	-	-
226	710504	Dep - Mini Comp Wtr	261.12	-	261.12	-	261.12	-	261.12	-	261.12	-	261.12
227	710601	Dep - Computer Software	-	-	-	-	-	-	-	-	-	-	-
228	710602	Dep - Comp Systems	-	-	-	-	-	-	-	-	-	-	-
229	710603	Dep - Micro Systems	-	-	-	-	-	-	-	-	-	-	-
230			-	-	-	-	-	-	-	-	-	-	-
231		Total Depreciation Expense - Sewer	416,363.09	62,675.82	479,038.90	-	479,038.90	20,616.05	499,654.95	113,728.04	613,382.99	65,001.63	678,384.62

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule B-21b
Updated 09/19/2022

Depreciation Expense

Column Calculations:
[A]- Company's total booked amounts for test year ended March 31, 2022
[B]- Amounts calculated based on Company's supporting schedules
[C]- Sum of Columns [A] & [B]
[D]- Base Case Proposed Increase calculated based on Company's supporting schedules
[E]- Sum of Columns [C] & [D]
[F]- WSIP Rate Year 1 Adjustments calculated based on Company's supporting schedules
[G]- Sum of Columns [C] & [F]
[H]- WSIP Rate Year 2 Adjustments calculated based on Company's supporting schedules
[I]- Sum of Columns [G] & [H]
[J]- WSIP Rate Year 3 Adjustments calculated based on Company's supporting schedules
[K]- Sum of Columns [I] & [J]

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule B-22b
Updated 09/19/2022

Water
Plant Acquisition Amortization Expense
Bradfield Farms - Fairfield Harbour - Treasure Cove

Line No.	Account	Description	Total Per Books [A]	Pro-Forma Adjustment [B]	Historical Test Year as adjusted [C] =[A]+[B]	Base Case Proposed Increase [D]	Base Case Total After Increase [E] =[C]+[D]	WSIP Rate Year 1 Adjustments [F]	WSIP Rate Year 1 Revenue Requirement [G] =[C]+[F]	WSIP Rate Year 2 Adjustments [H]	WSIP Rate Year 2 Revenue Requirement [I] =[G]+[H]	WSIP Rate Year 3 Adjustments [J]	WSIP Rate Year 3 Revenue Requirement [K] =[I]+[J]
1	710901	Dep - Purchase Acquisition Adjustments	11,679.30	4,174.68	[7] 15,853.98		15,853.98	-	15,853.98	-	15,853.98	-	15,853.98
2													
3		Total Plant Acquisition Amortization Expense - Water	<u>11,679.30</u>	<u>4,174.68</u>	<u>15,853.98</u>	<u>-</u>	<u>15,853.98</u>	<u>-</u>	<u>15,853.98</u>	<u>-</u>	<u>15,853.98</u>	<u>-</u>	<u>15,853.98</u>

Sewer
Plant Acquisition Amortization Expense
Bradfield Farms - Fairfield Harbour - Treasure Cove

Line No.	Account	Description	Total Per Books [A]	Pro-Forma Adjustment [B]	Historical Test Year as adjusted [C] =[A]+[B]	Base Case Proposed Increase [D]	Base Case Total After Increase [E] =[C]+[D]	WSIP Rate Year 1 Adjustments [F]	WSIP Rate Year 1 Revenue Requirement [G] =[C]+[F]	WSIP Rate Year 2 Adjustments [H]	WSIP Rate Year 2 Revenue Requirement [I] =[G]+[H]	WSIP Rate Year 3 Adjustments [J]	WSIP Rate Year 3 Revenue Requirement [K] =[I]+[J]
4	710901	Dep - Purchase Acquisition Adjustments	30,220.78	13,629.22	[7] 43,850.00		43,850.00	-	43,850.00	-	43,850.00	-	43,850.00
5													
6		Total Plant Acquisition Amortization Expense - Sewer	<u>30,220.78</u>	<u>13,629.22</u>	<u>43,850.00</u>	<u>-</u>	<u>43,850.00</u>	<u>-</u>	<u>43,850.00</u>	<u>-</u>	<u>43,850.00</u>	<u>-</u>	<u>43,850.00</u>

Plant Acquisition Amortization Expense

Column Calculations:

[A]- Company's total booked amounts for test year ended March 31, 2022

[B]- Amounts calculated based on Company's supporting schedules

[C]- Sum of Columns [A] & [B]

[D]- Base Case Proposed Increase calculated based on Company's supporting schedules

[E]- Sum of Columns [C] & [D]

[F]- WSIP Rate Year 1 Adjustments calculated based on Company's supporting schedules

[G]- Sum of Columns [C] & [F]

[H]- WSIP Rate Year 2 Adjustments calculated based on Company's supporting schedules

[I]- Sum of Columns [G] & [H]

[J]- WSIP Rate Year 3 Adjustments calculated based on Company's supporting schedules

[K]- Sum of Columns [I] & [J]

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule B-23b
Updated 09/19/2022

Water
Contribution-In-Aid-Construction Amortization

Bradfield Farms - Fairfield Harbour - Treasure Cove

Line No.	Account	Description	Total Per Books	Pro-Forms Adjustment	Historical Test Year as adjusted	Base Case Proposed Increase	Base Case Total After Increase	WSIP Rate Year 1 Adjustments	WSIP Rate Year 1 Revenue Requirement	WSIP Rate Year 2 Adjustments	WSIP Rate Year 2 Revenue Requirement	WSIP Rate Year 3 Adjustments	WSIP Rate Year 3 Revenue Requirement
			[A]	[B]	[C] =[A]+[B]	[D]	[E] =[C]+[D]	[F]	[G] =[C]+[F]	[H]	[I] =[G]+[H]	[J]	[K] =[I]+[J]
1	720001	Amort CIAC - Organization	-	-	-	-	-	-	-	-	-	-	-
2	720002	Amort CIAC - Franchises	-	-	-	-	-	-	-	-	-	-	-
3	720003	Amort CIAC - Structure/Improvement Sec Supply	-	-	-	-	-	-	-	-	-	-	-
4	720004	Amort CIAC - Structure/Improvement WTP	-	-	-	-	-	-	-	-	-	-	-
5	720005	Amort CIAC - Structure/Improvement Trans Dist	-	-	-	-	-	-	-	-	-	-	-
6	720006	Amort CIAC - Structure/Improvement Coll Plant	-	-	-	-	-	-	-	-	-	-	-
7	720007	Amort CIAC - Structure/Improvement Pump Plant La	-	-	-	-	-	-	-	-	-	-	-
8	720008	Amort CIAC - Structure/Improvement Treat Plant	-	-	-	-	-	-	-	-	-	-	-
9	720009	Amort CIAC - Structure/Improvement Reclaim Dist	-	-	-	-	-	-	-	-	-	-	-
10	720010	Amort CIAC - Structure/Improvement Reclaim WTP	-	-	-	-	-	-	-	-	-	-	-
11	720011	Amort CIAC - Structure/Improvement Generator Plant	-	-	-	-	-	-	-	-	-	-	-
12	720012	Amort CIAC - Power Generator Equipment COLL Plant	-	-	-	-	-	-	-	-	-	-	-
13	720013	Amort CIAC - Power Generator Equipment Treatment Plant	-	-	-	-	-	-	-	-	-	-	-
14	720014	Amort CIAC - Power Generator Equipment Reclaim WTP	-	-	-	-	-	-	-	-	-	-	-
15	720015	Amort CIAC - Power Generator Equipment Reclaim Dist	-	-	-	-	-	-	-	-	-	-	-
16	720016	Amort CIAC - Power Generator Equipment Pump Plant	-	-	-	-	-	-	-	-	-	-	-
17	720017	Amort CIAC - Wells and Springs	-	-	-	-	-	-	-	-	-	-	-
18	720018	Amort CIAC - Supply Mains	-	-	-	-	-	-	-	-	-	-	-
19	720019	Amort CIAC - Electric Pump Equipment Sec Pump	-	-	-	-	-	-	-	-	-	-	-
20	720020	Amort CIAC - Electric Pump Equipment Water Treatment Plant	-	-	-	-	-	-	-	-	-	-	-
21	720021	Amort CIAC - Electric Pump Equipment Trans Dist	-	-	-	-	-	-	-	-	-	-	-
22	720022	Amort CIAC - Water Treatment Equipment	-	-	-	-	-	-	-	-	-	-	-
23	720023	Amort CIAC - Dist Resv and S	-	-	-	-	-	-	-	-	-	-	-
24	720024	Amort CIAC - Trans and Distr Mains	(518.40)	259.20	[4] (259.20)	-	(259.20)	-	(259.20)	-	(259.20)	-	(259.20)
25	720025	Amort CIAC - Service Lines	(484.94)	(.01)	[4] (484.95)	-	(484.95)	-	(484.95)	-	(484.95)	-	(484.95)
26	720026	Amort CIAC - Meters	-	-	-	-	-	-	-	-	-	-	-
27	720027	Amort CIAC - Meter Installations	-	-	-	-	-	-	-	-	-	-	-
28	720028	Amort CIAC - Hydrants	(1,403.69)	(306.19)	[4] (1,709.88)	-	(1,709.88)	-	(1,709.88)	-	(1,709.88)	-	(1,709.88)
29	720029	Amort CIAC - Backflow Prevent D	-	-	-	-	-	-	-	-	-	-	-
30	720030	Amort CIAC - Collecting Reservo	-	-	-	-	-	-	-	-	-	-	-
31	720031	Amort CIAC - Lake, River, Other	-	-	-	-	-	-	-	-	-	-	-
32	720032	Amort CIAC - Office Structure	-	-	-	-	-	-	-	-	-	-	-
33	720033	Amort CIAC - Office Furniture/Equipment	-	-	-	-	-	-	-	-	-	-	-
34	720034	Amort CIAC - Misc Equipment	-	-	-	-	-	-	-	-	-	-	-
35	720035	Amort CIAC - Other Tangible Plant	(28,411.53)	(14,368.49)	[4] (42,780.02)	-	(42,780.02)	-	(42,780.02)	-	(42,780.02)	-	(42,780.02)
36	720036	Amort CIAC - Tap Fee	(7,186.94)	(2,386.19)	[4] (9,573.13)	-	(9,573.13)	-	(9,573.13)	-	(9,573.13)	-	(9,573.13)
37	720037	Amort CIAC - Management Fee	-	-	-	-	-	-	-	-	-	-	-
38	720038	Amort CIAC - Line Exit Fee	-	-	-	-	-	-	-	-	-	-	-
39	720039	Amort CIAC - Res Cap Fee	-	-	-	-	-	-	-	-	-	-	-
40	720040	Amort CIAC - Plant Mod Fee	(2,142.30)	(407.65)	[4] (2,549.95)	-	(2,549.95)	-	(2,549.95)	-	(2,549.95)	-	(2,549.95)
41	720041	Amort CIAC - Plant Meter Fee	(312.76)	(86.95)	[4] (349.71)	-	(349.71)	-	(349.71)	-	(349.71)	-	(349.71)
42	720042	Amort CIAC - Sewer Force Main	-	-	-	-	-	-	-	-	-	-	-
43	720043	Amort CIAC - Sewer Gravity Main	-	-	-	-	-	-	-	-	-	-	-
44	720044	Amort CIAC - Manholes	-	-	-	-	-	-	-	-	-	-	-
45	720045	Amort CIAC - Special Coll Struc	-	-	-	-	-	-	-	-	-	-	-
46	720046	Amort CIAC - Service to Customers	-	-	-	-	-	-	-	-	-	-	-
47	720047	Amort CIAC - Flow Measure Devices	-	-	-	-	-	-	-	-	-	-	-
48	720048	Amort CIAC - Flow Measure Install	-	-	-	-	-	-	-	-	-	-	-
49	720049	Amort CIAC - Pump Equipment Pump Plant	-	-	-	-	-	-	-	-	-	-	-
50	720050	Amort CIAC - Pump Equipment Reclaim Water	-	-	-	-	-	-	-	-	-	-	-
51	720051	Amort CIAC - Pump Equipment Reclaim Dist	-	-	-	-	-	-	-	-	-	-	-
52	720052	Amort CIAC - Laboratory Equipment	-	-	-	-	-	-	-	-	-	-	-
53	720053	Amort CIAC - Treatment/Disp Equipment Lagoon	-	-	-	-	-	-	-	-	-	-	-
54	720054	Amort CIAC - Treatment/Disp Equipment Treatment Plant	-	-	-	-	-	-	-	-	-	-	-
55	720055	Amort CIAC - Treatment/Disp Equipment Reclaim WTP	-	-	-	-	-	-	-	-	-	-	-
56	720056	Amort CIAC - Sewer Treatment Plant	-	-	-	-	-	-	-	-	-	-	-
57	720057	Amort CIAC - Outfall Lines	-	-	-	-	-	-	-	-	-	-	-
58	720058	Amort CIAC - Stores Equipment	-	-	-	-	-	-	-	-	-	-	-
59	720059	Amort CIAC - Power Operated Equipment	-	-	-	-	-	-	-	-	-	-	-
60	720060	Amort CIAC - Communication Equipment	-	-	-	-	-	-	-	-	-	-	-
61	720061	Amort CIAC - Reuse Services	-	-	-	-	-	-	-	-	-	-	-
62	720062	Amort CIAC - Reuse Dist Reservoir	-	-	-	-	-	-	-	-	-	-	-
63	720063	Amort CIAC - Reuse Transmission	-	-	-	-	-	-	-	-	-	-	-
64	720064	Amort CIAC - Capital	-	-	-	-	-	-	-	-	-	-	-
65	720065	Amort CIAC - Commercial Concession	-	-	-	-	-	-	-	-	-	-	-
66	720066	Amort CIAC - Developer	-	-	-	-	-	-	-	-	-	-	-
67	720067	Amort CIAC - Post Oct 97	-	-	-	-	-	-	-	-	-	-	-
68	720068	Amort CIAC - New (Taxable)N	-	-	-	-	-	-	-	-	-	-	-
69	720069	Amort CIAC - Old 10 Year (Taxable)	-	-	-	-	-	-	-	-	-	-	-
70	720070	Amort CIAC - Old Plant	-	-	-	-	-	-	-	-	-	-	-
71	720071	Amort CIAC - Estimates Only	-	-	-	-	-	-	-	-	-	-	-
72	720072	Amort CIAC - Unallocated - Non-taxable	-	-	-	-	-	-	-	-	-	-	-
73	720073	Amort CIAC - Unallocated - Taxable	-	-	-	-	-	-	-	-	-	-	-
74	720074	Amort CIAC - Utility Reloc/Non-taxable	-	-	-	-	-	-	-	-	-	-	-
75	720075	Amort CIAC - Utility Reloc/Taxable	-	-	-	-	-	-	-	-	-	-	-
76	720076	Amort CIAC - Residential	-	-	-	-	-	-	-	-	-	-	-
77	720077	Amort CIAC - Concession CIAC ETS/DPS - SC	-	-	-	-	-	-	-	-	-	-	-
78	720078	Amort CIAC - BC Hydro Grant	-	-	-	-	-	-	-	-	-	-	-
79	720079	Amort CIAC - Land	-	-	-	-	-	-	-	-	-	-	-
80													
81		Total Contribution-In-Aid-Construction Amortization - Water	(40,460.56)	(17,246.28)	(57,706.84)	-	(57,706.84)	-	(57,706.84)	-	(57,706.84)	-	(57,706.84)

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule B-23b
Updated 09/19/2022

Contribution-In-Aid-Construction Amortization				Base Case				Base Case		WSIP		WSIP		WSIP		WSIP		WSIP	
Line No.	Account	Description	Total Per Books	Pro-Forma Adjustment	Historical Test Year as adjusted	Proposed Increase	Total After Increase	Rate Year 1 Adjustments	Rate Year 1 Revenue Requirement	Rate Year 2 Adjustments	Rate Year 2 Revenue Requirement	Rate Year 3 Adjustments	Rate Year 3 Revenue Requirement						
			[A]	[B]	[C] =[A]+[B]	[D]	[E] =[C]+[D]	[F]	[G] =[C]+[F]	[H]	[I] =[G]+[H]	[J]	[K] =[I]+[J]						
82	720001	Amort CIAC - Organization	-	-	-	-	-	-	-	-	-	-	-						
83	720002	Amort CIAC - Franchises	-	-	-	-	-	-	-	-	-	-	-						
84	720003	Amort CIAC - Structure/Improvement Sec Supply	-	-	-	-	-	-	-	-	-	-	-						
85	720004	Amort CIAC - Structure/Improvement WTP	-	-	-	-	-	-	-	-	-	-	-						
86	720005	Amort CIAC - Structure/Improvement Trans Dist	-	-	-	-	-	-	-	-	-	-	-						
87	720006	Amort CIAC - Structure/Improvement Coll Plant	-	-	-	-	-	-	-	-	-	-	-						
88	720007	Amort CIAC - Structure/Improvement Pump Plant La	-	-	-	-	-	-	-	-	-	-	-						
89	720008	Amort CIAC - Structure/Improvement Treat Plant	-	-	-	-	-	-	-	-	-	-	-						
90	720009	Amort CIAC - Structure/Improvement Reclaim Dist	-	-	-	-	-	-	-	-	-	-	-						
91	720010	Amort CIAC - Structure/Improvement Reclaim WTP	-	-	-	-	-	-	-	-	-	-	-						
92	720011	Amort CIAC - Structure/Improvement Generator Plant	(110,535.51)	(562.56)	[4] (111,098.07)	-	(111,098.07)	-	(111,098.07)	-	(111,098.07)	-	(111,098.07)						
93	720012	Amort CIAC - Power Generator Equipment COLL Plant	-	-	-	-	-	-	-	-	-	-	-						
94	720013	Amort CIAC - Power Generator Equipment Treatment Plant	-	-	-	-	-	-	-	-	-	-	-						
95	720014	Amort CIAC - Power Generator Equipment Reclaim WTP	-	-	-	-	-	-	-	-	-	-	-						
96	720015	Amort CIAC - Power Generator Equipment Reclaim Dist	-	-	-	-	-	-	-	-	-	-	-						
97	720016	Amort CIAC - Power Generator Equipment Pump Plant	-	-	-	-	-	-	-	-	-	-	-						
98	720017	Amort CIAC - Wells and Springs	-	-	-	-	-	-	-	-	-	-	-						
99	720018	Amort CIAC - Supply Mains	-	-	-	-	-	-	-	-	-	-	-						
100	720019	Amort CIAC - Electric Pump Equipment Sec Pump	-	-	-	-	-	-	-	-	-	-	-						
101	720020	Amort CIAC - Electric Pump Equipment Water Treatment Plant	-	-	-	-	-	-	-	-	-	-	-						
102	720021	Amort CIAC - Electric Pump Equipment Trans Dist	-	-	-	-	-	-	-	-	-	-	-						
103	720022	Amort CIAC - Water Treatment Equipment	-	-	-	-	-	-	-	-	-	-	-						
104	720023	Amort CIAC - Dist Resv and S	-	-	-	-	-	-	-	-	-	-	-						
105	720024	Amort CIAC - Trans and Distr Mains	-	-	-	-	-	-	-	-	-	-	-						
106	720025	Amort CIAC - Service Lines	-	-	-	-	-	-	-	-	-	-	-						
107	720026	Amort CIAC - Meters	-	-	-	-	-	-	-	-	-	-	-						
108	720027	Amort CIAC - Meter Installations	-	-	-	-	-	-	-	-	-	-	-						
109	720028	Amort CIAC - Hydrants	-	-	-	-	-	-	-	-	-	-	-						
110	720029	Amort CIAC - Backflow Prevent D	-	-	-	-	-	-	-	-	-	-	-						
111	720030	Amort CIAC - Collecting Reservo	-	-	-	-	-	-	-	-	-	-	-						
112	720031	Amort CIAC - Lake, River, Other	-	-	-	-	-	-	-	-	-	-	-						
113	720032	Amort CIAC - Office Structure	-	-	-	-	-	-	-	-	-	-	-						
114	720033	Amort CIAC - Office Furniture/Equipment	-	-	-	-	-	-	-	-	-	-	-						
115	720034	Amort CIAC - Misc Equipment	-	-	-	-	-	-	-	-	-	-	-						
116	720035	Amort CIAC - Other Tangible Plant	-	-	-	-	-	-	-	-	-	-	-						
117	720036	Amort CIAC - Tap Fee	(9,858.78)	(3,006.99)	[4] (12,865.77)	-	(12,865.77)	-	(12,865.77)	-	(12,865.77)	-	(12,865.77)						
118	720037	Amort CIAC - Management Fee	-	-	-	-	-	-	-	-	-	-	-						
119	720038	Amort CIAC - Line Exit Fee	-	-	-	-	-	-	-	-	-	-	-						
120	720039	Amort CIAC - Res Cap Fee	(17,570.20)	(887.53)	[4] (18,457.73)	-	(18,457.73)	-	(18,457.73)	-	(18,457.73)	-	(18,457.73)						
121	720040	Amort CIAC - Plant Mod Fee	(5,835.60)	(1,779.86)	[4] (7,615.46)	-	(7,615.46)	-	(7,615.46)	-	(7,615.46)	-	(7,615.46)						
122	720041	Amort CIAC - Plant Meter Fee	-	-	-	-	-	-	-	-	-	-	-						
123	720042	Amort CIAC - Sewer Force Main	-	-	-	-	-	-	-	-	-	-	-						
124	720043	Amort CIAC - Sewer Gravity Main	(1,196.22)	598.11	[4] (598.11)	-	(598.11)	-	(598.11)	-	(598.11)	-	(598.11)						
125	720044	Amort CIAC - Manholes	-	-	-	-	-	-	-	-	-	-	-						
126	720045	Amort CIAC - Special Coll Struc	-	-	-	-	-	-	-	-	-	-	-						
127	720046	Amort CIAC - Service to Customers	-	-	-	-	-	-	-	-	-	-	-						
128	720047	Amort CIAC - Flow Measure Devices	-	-	-	-	-	-	-	-	-	-	-						
129	720048	Amort CIAC - Flow Measure Install	-	-	-	-	-	-	-	-	-	-	-						
130	720049	Amort CIAC - Pump Equipment Pump Plant	-	-	-	-	-	-	-	-	-	-	-						
131	720050	Amort CIAC - Pump Equipment Reclaim Water	-	-	-	-	-	-	-	-	-	-	-						
132	720051	Amort CIAC - Pump Equipment Reclaim Dist	-	-	-	-	-	-	-	-	-	-	-						
133	720052	Amort CIAC - Laboratory Equipment	-	-	-	-	-	-	-	-	-	-	-						
134	720053	Amort CIAC - Treatment/Disp Equipment Lagoon	-	-	-	-	-	-	-	-	-	-	-						
135	720054	Amort CIAC - Treatment/Disp Equipment Treatment Plant	-	-	-	-	-	-	-	-	-	-	-						
136	720055	Amort CIAC - Treatment/Disp Equipment Reclaim WTP	-	-	-	-	-	-	-	-	-	-	-						
137	720056	Amort CIAC - Sewer Treatment Plant	-	-	-	-	-	-	-	-	-	-	-						
138	720057	Amort CIAC - Outfall Lines	-	-	-	-	-	-	-	-	-	-	-						
139	720058	Amort CIAC - Stores Equipment	-	-	-	-	-	-	-	-	-	-	-						
140	720059	Amort CIAC - Power Operated Equipment	-	-	-	-	-	-	-	-	-	-	-						
141	720060	Amort CIAC - Communication Equipment	-	-	-	-	-	-	-	-	-	-	-						
142	720061	Amort CIAC - Reuse Services	-	-	-	-	-	-	-	-	-	-	-						
143	720062	Amort CIAC - Reuse Dist Reservoir	-	-	-	-	-	-	-	-	-	-	-						
144	720063	Amort CIAC - Reuse Transmission	-	-	-	-	-	-	-	-	-	-	-						
145	720064	Amort CIAC - Capital	-	-	-	-	-	-	-	-	-	-	-						
146	720065	Amort CIAC - Commercial Concession	-	-	-	-	-	-	-	-	-	-	-						
147	720066	Amort CIAC - Developer	-	-	-	-	-	-	-	-	-	-	-						
148	720067	Amort CIAC - Post Oct 97	-	-	-	-	-	-	-	-	-	-	-						
149	720068	Amort CIAC - New (Taxable)N	-	-	-	-	-	-	-	-	-	-	-						
150	720069	Amort CIAC - Old-10 Year (Taxable)	-	-	-	-	-	-	-	-	-	-	-						
151	720070	Amort CIAC - Old Plant	-	-	-	-	-	-	-	-	-	-	-						
152	720071	Amort CIAC - Estimates Only	-	-	-	-	-	-	-	-	-	-	-						
153	720072	Amort CIAC - Unallocated - Non-taxable	-	-	-	-	-	-	-	-	-	-	-						
154	720073	Amort CIAC - Unallocated - Taxable	-	-	-	-	-	-	-	-	-	-	-						
155	720074	Amort CIAC - Utility Reloc/Non-taxable	-	-	-	-	-	-	-	-	-	-	-						
156	720075	Amort CIAC - Utility Reloc/Taxable	-	-	-	-	-	-	-	-	-	-	-						
157	720076	Amort CIAC - Residential	-	-	-	-	-	-	-	-	-	-	-						
158	720077	Amort CIAC - Concession CIAC ETS/DPS - SC	-	-	-	-	-	-	-	-	-	-	-						
159	720078	Amort CIAC - BC Hydro Grant	-	-	-	-	-	-	-	-	-	-	-						
160	720079	Amort CIAC - Land	-	-	-	-	-	-	-	-	-	-	-						
161																			
162		Total Contribution-In-Aid-Construction Amortization - Sewer	(144,996.31)	(5,638.83)	(150,635.14)	-	(150,635.14)	-	(150,635.14)	-	(150,635.14)	-	(150,635.14)						

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Contribution-In-Aid-Construction Amortization

Column Calculations:
[A]- Company's total booked amounts for test year ended March 31, 2022
[B]- Amounts calculated based on Company's supporting schedules
[C]- Sum of Columns [A] & [B]
[D]- Base Case Proposed Increase calculated based on Company's supporting schedules
[E]- Sum of Columns [C] & [D]
[F]- WSIP Rate Year 1 Adjustments calculated based on Company's supporting schedules
[G]- Sum of Columns [C] & [F]
[H]- WSIP Rate Year 2 Adjustments calculated based on Company's supporting schedules
[I]- Sum of Columns [G] & [H]
[J]- WSIP Rate Year 3 Adjustments calculated based on Company's supporting schedules
[K]- Sum of Columns [I] & [J]

Schedule B-23b
Updated 09/19/2022

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule B-24b
Updated 09/19/2022

Water			Bradfield Farms - Fairfield Harbour - Treasure Cove									
Investment Tax Credit Amortization						Base Case	Base Case	WSIP	WSIP	WSIP	WSIP	WSIP
Line			Total Per Books	Pro-Forma	Historical Test	Proposed	Total After	Rate Year 1	Rate Year 1	Rate Year 2	Rate Year 2	Rate Year 3
No.	Account	Description	[A]	Adjustment	Year as adjusted	Increase	Increase	Adjustments	Revenue	Adjustments	Revenue	Revenue
				[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[K]
					=[A]+[B]		=[C]+[D]		=[C]+[F]		=[G]+[H]	= [I]+[J]
1	920003	Investment Tax Credit Amortization	-	-	-		-	-	-	-	-	-
2												
3		Total Investment Tax Credit Amortization - Water	-	-	-	-	-	-	-	-	-	-

Sewer			Bradfield Farms - Fairfield Harbour - Treasure Cove									
Investment Tax Credit Amortization						Base Case	Base Case	WSIP	WSIP	WSIP	WSIP	WSIP
Line			Total Per Books	Pro-Forma	Historical Test	Proposed	Total After	Rate Year 1	Rate Year 1	Rate Year 2	Rate Year 2	Rate Year 3
No.	Account	Description	[A]	Adjustment	Year as adjusted	Increase	Increase	Adjustments	Revenue	Adjustments	Revenue	Revenue
				[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[K]
					=[A]+[B]		=[C]+[D]		=[C]+[F]		=[G]+[H]	= [I]+[J]
4	920003	Investment Tax Credit Amortization	-	-	-		-	-	-	-	-	-
5												
6		Total Investment Tax Credit Amortization - Sewer	-	-	-	-	-	-	-	-	-	-

Investment Tax Credit Amortization

Column Calculations:
[A]- Company's total booked amounts for test year ended March 31, 2022
[B]- Amounts calculated based on Company's supporting schedules
[C]- Sum of Columns [A] & [B]
[D]- Base Case Proposed Increase calculated based on Company's supporting schedules
[E]- Sum of Columns [C] & [D]
[F]- WSIP Rate Year 1 Adjustments calculated based on Company's supporting schedules
[G]- Sum of Columns [C] & [F]
[H]- WSIP Rate Year 2 Adjustments calculated based on Company's supporting schedules
[I]- Sum of Columns [G] & [H]
[J]- WSIP Rate Year 3 Adjustments calculated based on Company's supporting schedules
[K]- Sum of Columns [I] & [J]

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule B-25b
Updated 09/19/2022

Water TOTI		Bradfield Farms - Fairfield Harbour - Treasure Cove					Base Case	Base Case	WSIP	WSIP	WSIP	WSIP	WSIP	WSIP
Line No.	Account	Description	Total Per Books	Pro-Forma Adjustment	Historical Test Year as adjusted	Proposed Increase	Total After Increase	Rate Year 1 Adjustments	Rate Year 1 Revenue Requirement	Rate Year 2 Adjustments	Rate Year 2 Revenue Requirement	Rate Year 3 Adjustments	Rate Year 3 Revenue Requirement	
			[A]	[B]	[C] =[A]+[B]	[D]	[E] =[C]+[D]	[F]	[G] =[C]+[F]	[H]	[I] =[G]+[H]	[J]	[K] =[I]+[J]	
1	641100	FICA	21,522.49	13,995.28 [21a]	35,517.77		35,517.77	1,065.53	36,583.30	1,097.50	37,680.80	1,130.42	38,811.22	
2	641200	Payroll Tax	-	-	-		-	-	-	-	-	-	-	
3	641300	Employer Health Tax	-	-	-		-	-	-	-	-	-	-	
4	642100	Federal Unemployment Tax	256.09	(0.05) [21a]	256.04		256.04	7.68	263.72	7.91	271.64	8.15	279.79	
5	642200	State Unemployment Tax	814.92	(15.26) [21a]	799.66		799.66	23.99	823.65	24.71	848.36	25.45	873.81	
6	642300	Other Payroll Taxes	-	-	-		-	-	-	-	-	-	-	
7		Total Payroll Taxes	22,593.50	13,979.97	36,573.47	-	36,573.47	1,097.20	37,670.67	1,130.12	38,800.79	1,164.02	39,964.82	
8	643100	Franchise Taxes	-	-	-		-	-	-	-	-	-	-	
9	643200	Gross Receipts Taxes	-	-	-		-	-	-	-	-	-	-	
10	643300	Personal Property Taxes	1,220.27	-	1,220.27		1,220.27	323.29	1,543.56	230.84	1,774.40	152.41	1,926.81	
11	643400	Real Estate Taxes	6,525.76	-	6,525.76		6,525.76	1,728.89	8,254.66	1,234.51	9,489.16	815.08	10,304.24	
12	643500	Sales And Use Taxes	-	-	-		-	-	-	-	-	-	-	
13	643600	Utility/Commission Taxes	-	-	-		-	-	-	-	-	-	-	
14	643700	Other General Taxes	(1,321.03)	- [28]	(1,321.03)	2,710.42	2,710.42	3,176.55	3,176.55	309.69	3,486.24	233.08	3,719.32	
15		Total Property and Other Tax Expense	6,425.00	-	6,425.00	2,710.42	9,135.42	5,099.79	11,524.79	1,727.72	13,252.51	1,151.70	14,404.21	
16		Total TOTI - Water	29,018.50	13,979.97	42,998.47	2,710.42	45,708.89	6,196.99	49,195.46	2,857.84	52,053.30	2,315.73	54,369.03	

Sewer TOTI		Bradfield Farms - Fairfield Harbour - Treasure Cove				Base Case		Base Case		WSIP		WSIP		WSIP		WSIP		WSIP	
Line No.	Account	Description	Total Per Books [A]	Pro-Forma Adjustment [B]	Historical Test Year as adjusted [C] =[A]+[B]	Proposed Increase [D]	Total After Increase [E] =[C]+[D]	Rate Year 1 Adjustments [F]	Rate Year 1 Revenue Requirement [G] =[C]+[F]	Rate Year 2 Adjustments [H]	Rate Year 2 Revenue Requirement [I] =[G]+[H]	Rate Year 3 Adjustments [J]	Rate Year 3 Revenue Requirement [K] =[I]+[J]						
17	641100	FICA	22,030.43	14,325.58 [21a]	36,356.01		36,356.01	1,090.68	37,446.69	1,123.40	38,570.09	1,157.10	39,727.20						
18	641200	Payroll Tax	-	-	-		-	-	-	-	-	-	-						
19	641300	Employer Health Tax	-	-	-		-	-	-	-	-	-	-						
20	642100	Federal Unemployment Tax	262.14	(0.05) [21a]	262.09		262.09	7.86	269.95	8.10	278.05	8.34	286.39						
21	642200	State Unemployment Tax	834.15	(15.62) [21a]	818.53		818.53	24.56	843.09	25.29	868.38	26.05	894.43						
22	642300	Other Payroll Taxes	-	-	-		-	-	-	-	-	-	-						
		Total Payroll Taxes	23,126.72	14,309.91	37,436.63	-	37,436.63	1,123.10	38,559.73	1,156.79	39,716.52	1,191.50	40,908.02						
19	643100	Franchise Taxes	-	-	-		-	-	-	-	-	-	-						
20	643200	Gross Receipts Taxes	-	-	-		-	-	-	-	-	-	-						
21	643300	Personal Property Taxes	3,073.75	-	3,073.75		3,073.75	237.83	3,311.58	795.03	4,106.61	570.20	4,676.81						
22	643400	Real Estate Taxes	6,679.78	-	6,679.78		6,679.78	516.83	7,196.61	1,727.73	8,924.34	1,239.14	10,163.48						
23	643500	Sales And Use Taxes	-	-	-		-	-	-	-	-	-	-						
24	643600	Utility/Commission Taxes	-	-	-		-	-	-	-	-	-	-						
25	643700	Other General Taxes	(1,352.20)	[28]	(1,352.20)	3,850.70 [28]	3,850.70	4,183.13	4,183.13	830.57	5,013.71	559.71	5,573.41						
26		Total Property and Other Tax Expense	8,401.33	-	8,401.33	3,850.70	12,252.03	4,801.26	13,202.59	3,295.36	16,497.95	2,308.83	18,806.77						
27		Total TOTI - Sewer	8,401.33	-	8,401.33	3,850.70	12,252.03	4,801.26	13,202.59	3,295.36	16,497.95	2,308.83	18,806.77						

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule B-25b
Updated 09/19/2022

TOTI

Column Calculations:
[A]- Company's total booked amounts for test year ended March 31, 2022
[B]- Amounts calculated based on Company's supporting schedules
[C]- Sum of Columns [A] & [B]
[D]- Base Case Proposed Increase calculated based on Company's supporting schedules
[E]- Sum of Columns [C] & [D]
[F]- WSIP Rate Year 1 Adjustments calculated based on Company's supporting schedules
[G]- Sum of Columns [C] & [F]
[H]- WSIP Rate Year 2 Adjustments calculated based on Company's supporting schedules
[I]- Sum of Columns [G] & [H]
[J]- WSIP Rate Year 3 Adjustments calculated based on Company's supporting schedules
[K]- Sum of Columns [I] & [J]

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule B-26b
Updated 09/19/2022

Water		Bradfield Farms - Fairfield Harbour - Treasure Cove								
Income Taxes			Base Case	Base Case	WSIP	WSIP	WSIP	WSIP	WSIP	WSIP
Line No	Description	Historical Test Year as adjusted	Proposed Increase	Total After Increase	Rate Year 1 Adjustments	Rate Year 1 Revenue Requirement	Rate Year 2 Adjustments	Rate Year 2 Revenue Requirement	Rate Year 3 Adjustments	Rate Year 3 Revenue Requirement
		[A]	[B]	[C] =[A]+[B]	[D]	[E] =[A]+[D]	[F]	[G] =[E]+[F]	[H]	[I] =[G]+[H]
1	Operating Revenues	1,859,432.42	214,830.06	2,074,262.48	354,780.49	2,429,042.97	235,453.22	2,664,496.19	177,292.52	2,841,788.70
2	Operating Deductions:									
3	Maintenance expenses	408,039.72		408,039.72		456,507.01		466,698.46		478,548.89
4	General expenses	1,125,041.34		1,125,041.34		1,195,425.96		1,238,458.91		1,279,886.23
5	Depreciation expense	205,216.94		205,216.94		250,449.74		283,593.01		308,492.75
6	Amortization of PAA	15,853.98		15,853.98		15,853.98		15,853.98		15,853.98
9	Amortization of CIAC	(57,706.84)		(57,706.84)		(57,706.84)		(57,706.84)		(57,706.84)
8	Amortization of ITC	-		-		-		-		-
7	TOII	42,998.47	2,710.42	45,708.89	3,176.55	49,195.46	309.69	52,053.30	233.08	54,369.03
10	Interest expense	116,452.91	(31,812.95)	84,639.96	45,393.16	130,033.12	36,613.50	166,646.62	24,237.83	190,884.45
11	Total Operating Deductions	1,855,896.53	(29,102.53)	1,826,793.99	48,569.71	2,039,758.44	36,923.19	2,165,597.45	24,470.91	2,270,328.48
12	Taxable Income State (Line 1 minus Line 11)	3,535.89	243,932.60	247,468.49	141,816.04	389,284.53	109,614.21	498,898.74	72,561.48	571,460.22
13	State Income Tax (Line 12 multiplied by 2.5%)	88.40	6,098.31	6,186.71	3,545.40	9,732.11	2,740.36	12,472.47	1,814.04	14,286.51
14	Federal Taxable Income (Line 12 minus Line 13)	3,447.49	237,834.28	241,281.77	138,270.64	379,552.42	106,873.85	486,426.27	70,747.45	557,173.71
15	Federal Income Tax (Line 14 multiplied by 21%)	723.97	49,945.20	50,669.17	29,036.83	79,706.01	22,443.51	102,149.52	14,856.96	117,006.48
16	Net Amount (Line 14 minus Line 15)	2,723.52	187,889.08	190,612.60	109,233.81	299,846.41	84,430.34	384,276.75	55,890.48	440,167.23
17	Add: Interest Expense	116,452.91	(31,812.95)	84,639.96	45,393.16	130,033.12	36,613.50	166,646.62	24,237.83	190,884.45
18	Net Income for Return	119,176.43	156,076.13	275,252.56	154,626.97	429,879.53	121,043.84	550,923.37	80,128.31	631,051.68

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022

Schedule B-26b
Updated 09/19/2022

Sewer
Income Taxes
Bradfield Farms - Fairfield Harbour - Treasure Cove

Line No	Description	Historical Test Year as adjusted [A]	Base Case Proposed Increase [B]	Base Case Total After Increase [C] =[A]+[B]	WSIP Rate Year 1 Adjustments [D]	WSIP Rate Year 1 Revenue Requirement [E] =[A]+[D]	WSIP Rate Year 2 Adjustments [F]	WSIP Rate Year 2 Revenue Requirement [G] =[E]+[F]	WSIP Rate Year 3 Adjustments [H]	WSIP Rate Year 3 Revenue Requirement [I] =[G]+[H]
19	Operating Revenues	2,604,767.56	338,921.10	2,943,688.66	253,170.36	3,196,859.02	630,780.77	3,827,639.79	425,200.23	4,252,840.01
20	Operating Deductions:									
21	Maintenance expenses	476,179.50		476,179.50		522,880.44		543,059.59		564,042.97
22	General expenses	1,151,561.71		1,151,561.71		1,215,651.33		1,266,731.80		1,316,074.23
23	Depreciation expense	479,038.90		479,038.90		499,654.95		613,382.99		678,384.62
24	Amortization of PAA	43,850.00		43,850.00		43,850.00		43,850.00		43,850.00
27	Amortization of CIAC	(150,635.14)		(150,635.14)		(150,635.14)		(150,635.14)		(150,635.14)
26	Amortization of ITC	-		-		-		-		-
25	TOTI	45,837.96	3,850.70	49,688.66	4,183.13	51,762.32	830.57	56,214.47	559.71	59,714.79
28	Interest expense	313,478.63	(85,638.30)	227,840.33	25,978.67	253,819.00	110,506.93	364,325.93	71,704.57	436,030.50
29	Total Operating Deductions	2,359,311.55	(81,787.60)	2,277,523.95	30,161.80	2,436,982.89	111,337.50	2,736,929.64	72,264.28	2,947,461.97
30	Taxable Income State (Line 29 minus Line 19)	245,456.01	420,708.70	666,164.70	93,711.43	759,876.13	330,834.02	1,090,710.15	214,667.90	1,305,378.05
31	State Income Tax (Line 30 multiplied by 2.5%)	6,136.40	10,517.72	16,654.12	2,342.79	18,996.90	8,270.85	27,267.75	5,366.70	32,634.45
32	Federal Taxable Income (Line 30 minus Line 31)	239,319.61	410,190.98	649,510.58	91,368.64	740,879.22	322,563.17	1,063,442.40	209,301.20	1,272,743.60
33	Federal Income Tax (Line 32 multiplied by 21%)	50,257.12	86,140.11	136,397.22	19,187.41	155,584.64	67,738.27	223,322.90	43,953.25	267,276.16
34	Net Amount (Line 32 minus Line 33)	189,062.49	324,050.87	513,113.36	72,181.23	585,294.59	254,824.91	840,119.49	165,347.95	1,005,467.44
35	Add: Interest Expense	313,478.63	(85,638.30)	227,840.33	25,978.67	253,819.00	110,506.93	364,325.93	71,704.57	436,030.50
36	Net Income for Return	502,541.12	238,412.58	740,953.69	98,159.90	839,113.59	365,331.84	1,204,445.42	237,052.52	1,441,497.94

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022

Income Taxes

Column Calculations:
[A]- Company's total booked amounts for test year ended March 31, 2022
[B]- Amounts calculated based on Company's supporting schedules
[C]- Sum of Columns [A] & [B]
[D]- Base Case Proposed Increase calculated based on Company's supporting schedules
[E]- Sum of Columns [C] & [D]
[F]- WSIP Rate Year 1 Adjustments calculated based on Company's supporting schedules
[G]- Sum of Columns [C] & [F]
[H]- WSIP Rate Year 2 Adjustments calculated based on Company's supporting schedules
[I]- Sum of Columns [G] & [H]
[J]- WSIP Rate Year 3 Adjustments calculated based on Company's supporting schedules
[K]- Sum of Columns [I] & [J]

Schedule B-26b
Updated 09/19/2022

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Schedule D: Revenue Requirement Schedules
CWS - NC Uniform

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule D-1a
Updated 09/19/2022

Required Return & Cost of Debt

CWS - NC Uniform

Line No.	Item	Capital Structure	Cost Rates	Retention Factor	Gross Revenue Effect
		[A]	[B]	[C]	[D]
	Rate Base Factor - Water Operations				
1	Debt	50.00%	4.64%	0.998700	0.023230
2	Equity	50.00%	10.45%	0.769248	0.067923
3	Total	100.00%			0.091153
	Rate Base Factor - Sewer Operations				
4	Debt	50.00%	4.64%	0.998700	0.023230
5	Equity	50.00%	10.45%	0.769248	0.067923
6	Total	100.00%			0.091153
8		Water	Sewer		
9		Operations	Operations		
10		[E]	[F]		
11	Net Income Factor:				
12	Total revenue	1.000000	1.000000		
13	Gross receipts tax (L12 x statutory rat	0.000000	0.000000		
14	Regulatory fee (L12 x .130%)	0.001300	0.001300		
15	Balance (L12 - L13 - L14)	0.998700	0.998700		
16	State income tax (L12 x 2.5%)	0.024968	0.024968		
17	Balance (L15 - L16)	0.973732	0.973732		
18	Federal income tax (L17 x 21%)	0.204484	0.204484		
19	Retention factor (L17 - L18)	0.769248	0.769248		

Column Calculations:

[A]- Company's capital structure, updated as of March 31, 2022

[B]- Company's cost of debt and required return on equity, updated as of March 31, 2022

[C]- Column [E] Line 15, and 19 respectively

[D]- Column [A] multiplied by Column [B] divided by Column [C]

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule D-2a
Updated 09/19/2022

Water
Rate Base Return

CWS - NC Uniform

Line No.	Description	Capitalization Ratio [A]	Original Cost Rate Base [B]	Embedded Cost [C]	Overall Cost Rate [D]	Net Operating Income [E]
1	<u>Present Rates:</u>					
2	Debt	50.00%	36,188,590	4.64%	2.32%	\$1,677,916
3	Equity	50.00%	36,188,590	6.18%	3.09%	\$2,234,810
4	Total	100.00%	\$72,377,180		5.41%	\$3,912,725
5	<u>Proposed Rates - Base Case:</u>					
6	Debt	50.00%	36,188,863	4.64%	2.32%	\$1,679,163
7	Equity	50.00%	36,188,863	10.45%	5.23%	\$3,781,736
7	Total	100.00%	\$72,377,726		7.55%	\$5,460,899
8	<u>Proposed Rates - WSIP Rate Year 1:</u>					
9	Debt	50.00%	40,304,544	4.64%	2.32%	\$1,870,131
10	Equity	50.00%	40,304,543	10.70%	5.35%	\$4,312,586
10	Total	100.00%	\$80,609,087		7.67%	\$6,182,717
11	<u>Proposed Rates - WSIP Rate Year 2:</u>					
12	Debt	50.00%	44,627,386	4.64%	2.32%	\$2,070,711
13	Equity	50.00%	44,627,387	10.70%	5.35%	\$4,775,130
13	Total	100.00%	\$89,254,773		7.67%	\$6,845,841
14	<u>Proposed Rates - WSIP Rate Year 3:</u>					
15	Debt	50.00%	48,036,345	4.64%	2.32%	\$2,228,886
16	Equity	50.00%	48,036,345	10.70%	5.35%	\$5,139,889
16	Total	100.00%	\$96,072,690		7.67%	\$7,368,775

Carolina Water Service, Inc. of North Carolina
 W - 354, Sub 400
 Summary of Rate Case Adjustments
 Test Year: March 31, 2022
 WSIP Period: April 1, 2023 - March 31, 2026

Schedule D-2a
 Updated 09/19/2022

Sewer
 Rate Base Return

CWS - NC Uniform

Line No.	Description	Capitalization Ratio [A]	Original Cost Rate Base [B]	Embedded Cost [C]	Overall Cost Rate [D]	Net Operating Income [E]
8	<u>Present Rates:</u>					
9	Debt	50.00%	34,041,404	4.64%	2.32%	\$1,579,521
10	Equity	50.00%	34,041,404	5.86%	2.93%	\$1,994,132
11	Total	100.00%	\$68,082,808		5.25%	\$3,573,653
12	<u>Proposed Rates - Base Case:</u>					
12	Debt	50.00%	34,041,682	4.64%	2.32%	\$1,579,534
13	Equity	50.00%	34,041,682	10.45%	5.23%	\$3,557,356
14	Total	100.00%	\$68,083,364		7.55%	\$5,136,890
15	<u>Proposed Rates - WSIP Rate Year 1:</u>					
15	Debt	50.00%	37,772,284	4.64%	2.32%	\$1,752,634
16	Equity	50.00%	37,772,284	10.70%	5.35%	\$4,041,634
17	Total	100.00%	\$75,544,568		7.67%	\$5,794,268
18	<u>Proposed Rates - WSIP Rate Year 2:</u>					
18	Debt	50.00%	44,481,767	4.64%	2.32%	\$2,063,954
19	Equity	50.00%	44,481,767	10.70%	5.35%	\$4,759,549
20	Total	100.00%	\$88,963,534		7.67%	\$6,823,503
21	<u>Proposed Rates - WSIP Rate Year 3:</u>					
21	Debt	50.00%	50,569,978	4.64%	2.32%	\$2,346,447
22	Equity	50.00%	50,569,979	10.70%	5.35%	\$5,410,988
23	Total	100.00%	#####		7.67%	\$7,757,435

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule D-2a
Updated 09/19/2022

Rate Base Return

Column Calculations:

[A]- Company's capital structure, updated as of March 31, 2022

[B]- Company's Rate Base at end of each period (13mo average for WSIP Periods)

[C]-Embedded cost rate from Schedule D-1

[D]- Column [A]*[C]

[E]- Column [B]*[D]

Schedule D-3a
Updated 09/19/2022

Sewer		CWS - NC Uniform								
Total Revenue Requirement			Base Case	Base Case	WSIP	WSIP	WSIP	WSIP	WSIP	WSIP
Line No.	Description	Retention Factors	Deductions	Revenue Requirement	Rate Year 1 Deductions	Revenue Requirement	Rate Year 2 Deductions	Revenue Requirement	Rate Year 3 Deductions	Revenue Requirement
		[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]
16	<u>Operating revenue deductions:</u>									
17	Maintenance expenses		4,417,838		4,705,136		4,791,618		4,678,863	
18	General expenses		5,738,882		6,059,254		6,239,834		6,423,810	
19	Depreciation expense		3,456,269		3,667,345		3,999,605		4,341,053	
20	Amortization of CIAC		(625,462)		(625,462)		(625,462)		(625,462)	
21	Amortization of PAA		(17,433)		(17,433)		(17,433)		(17,433)	
22	Amortization of ITC		(254)		(254)		(254)		(254)	
23	TOTI		335,412		352,963		372,101		390,965	
24	Total operating revenue deductions	0.998700	<u>13,305,252</u>	13,322,571	<u>14,141,549</u>	14,159,957	<u>14,760,010</u>	14,779,222	<u>15,191,542</u>	15,211,317
25	<u>Net operating income for a return:</u>									
26	Debt service return	0.998700	\$1,579,534	1,581,590	\$1,752,634	1,754,915	\$2,063,954	2,066,641	\$2,346,447	2,349,501
27	Equity return	0.769248	\$3,557,356	4,624,459	\$4,041,634	5,254,007	\$4,759,549	6,187,275	\$5,410,988	7,034,126
28										
29	Adjustment for revenues not subject to GRT	0.998700	0	<u>0</u>	0	<u>0</u>	0	<u>0</u>	0	<u>0</u>
30										
31	Revenue requirement			<u>\$19,528,620</u>		<u>\$21,168,879</u>		<u>\$23,033,138</u>		<u>\$24,594,944</u>

[A]- Retention factors from Schedule D-1
 [B]- Operating Deductions from Income Statement, Return from Schedule D-2
 [C]- Column [A]*[B]
 [D]- Operating Deductions from Income Statement, Return from Schedule D-2
 [E]- Column [A]*[D]
 [F]- Operating Deductions from Income Statement, Return from Schedule D-2
 [G]- Column [A]*[F]
 [H]- Operating Deductions from Income Statement, Return from Schedule D-2
 [I]- Column [A]*[H]

Dec 05 2022

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule D-4a
Updated 09/19/2022

Water Service Revenue Requirement		CWS - NC Uniform Base Case	WSIP Rate Year 1 Revenue Requirement	WSIP Rate Year 2 Revenue Requirement	WSIP Rate Year 3 Revenue Requirement
Line No.	Item	Revenue Requirement [A]	Requiremen [B]	Requirement [C]	Requirement [D]
1	Revenues	1.0000	1.0000	1.0000	1.0000
2	Plus: Forfeited discounts	0.0031	0.0031	0.0031	0.0031
3	Revenues with forfeited discounts	1.0031	1.0031	1.0031	1.0031
4	Uncollectible accounts	(0.0098)	(0.0098)	(0.0098)	(0.0098)
5	Service Revenue	0.9933	0.9933	0.9933	0.9933
6	Total revenue requirement	\$24,738,298	\$26,653,846	\$28,160,409	\$29,443,825
7	Less: Misc Revenues	(90,390.44)	(90,390.44)	(90,390.44)	(90,390.44)
8	Revenues excl misc revenues	\$24,647,908	\$26,563,456	\$28,070,019	\$29,353,435
9	Retention factor	0.9933	0.9933	0.9933	0.9933
10	Service revenues	\$24,813,143	\$26,741,532	\$28,258,195	\$29,550,215
Sewer Service Revenue Requirement		CWS - NC Uniform Base Case	WSIP Rate Year 1 Revenue Requirement	WSIP Rate Year 2 Revenue Requirement	WSIP Rate Year 3 Revenue Requirement
Line No.	Item	Revenue Requirement [A]	Requiremen [B]	Requirement [C]	Requirement [D]
11	Revenues	1.0000	1.0000	1.0000	1.0000
12	Plus: Forfeited discounts	0.0024	0.0024	0.0024	0.0024
13	Revenues with forfeited discounts	1.0024	1.0024	1.0024	1.0024
14	Uncollectible accounts	(0.0098)	(0.0098)	(0.0098)	(0.0098)
15	Service Revenue	0.9926	0.9926	0.9926	0.9926
16	Total revenue requirement	\$19,528,620	\$21,168,879	\$23,033,138	\$24,594,944
17	Less: Misc Revenues	(73,544.50)	(73,544.50)	(73,544.50)	(73,544.50)
18	Revenues excl misc revenues	\$19,455,076	\$21,095,335	\$22,959,594	\$24,521,400
19	Retention factor	0.9926	0.9926	0.9926	0.9926
20	Service revenues	\$19,599,310	\$21,251,730	\$23,129,810	\$24,703,195

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Schedule D: Revenue Requirement Schedules
Bradfield Farms - Fairfield Harbour - Treasure Cove

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule D-1b
Updated 09/19/2022

Required Return & Cost of Debt

Bradfield Farms - Fairfield Harbour - Treasure Cove

Line No.	Item	Capital Structure	Cost Rates	Retention Factor	Gross Revenue Effect
		[A]	[B]	[C]	[D]
	<u>Rate Base Factor - Water Operations</u>				
1	Debt	50.00%	4.64%	0.998700	0.023230
2	Equity	50.00%	10.45%	0.769248	0.067923
3	Total	<u>100.00%</u>			<u>0.091153</u>
	<u>Rate Base Factor - Sewer Operations</u>				
4	Debt	50.00%	4.64%	0.998700	0.023230
5	Equity	50.00%	10.45%	0.769248	0.067923
6	Total	<u>100.00%</u>			<u>0.091153</u>
8		Water	Sewer		
9		Operations	Operations		
10		[E]	[F]		
11	<u>Net Income Factor:</u>				
12	Total revenue	1.000000	1.000000		
13	Gross receipts tax (L12 x statutory rat	0.000000	0.000000		
14	Regulatory fee (L12 x .130%)	0.001300	0.001300		
15	Balance (L12 - L13 - L14)	0.998700	0.998700		
16	State income tax (L12 x 2.5%)	0.024968	0.024968		
17	Balance (L15 - L16)	0.973732	0.973732		
18	Federal income tax (L17 x 21%)	0.204484	0.204484		
19	Retention factor (L17 - L18)	<u>0.769248</u>	<u>0.769248</u>		

Column Calculations:

[A]- Company's capital structure, updated as of March 31, 2022

[B]- Company's cost of debt and required return on equity, updated as of March 31, 2022

[C]- Column [E] Line 15, and 19 respectively

[D]- Column [A] multiplied by Column [B] divided by Column [C]

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule D-2b
Updated 09/19/2022

Water
Rate Base Return
Bradfield Farms - Fairfield Harbour - Treasure Cove

Line No.	Description	Capitalization Ratio [A]	Original Cost Rate Base [B]	Embedded Cost [C]	Overall Cost Rate [D]	Net Operating Income [E]
1	<u>Present Rates:</u>					
2	Debt	50.00%	1,824,111	4.64%	2.32%	\$84,554
3	Equity	50.00%	1,824,111	1.90%	0.95%	\$34,623
4	Total	100.00%	\$3,648,222		3.27%	\$119,177
	<u>Proposed Rates - Base Case:</u>					
5	Debt	50.00%	1,824,137	4.64%	2.32%	\$84,640
6	Equity	50.00%	1,824,138	10.45%	5.23%	\$190,622
7	Total	100.00%	\$3,648,275		7.55%	\$275,262
	<u>Proposed Rates - WSIP Rate Year 1:</u>					
8	Debt	50.00%	2,802,438	4.64%	2.32%	\$130,033
9	Equity	50.00%	2,802,437	10.70%	5.35%	\$299,861
10	Total	100.00%	\$5,604,875		7.67%	\$429,894
	<u>Proposed Rates - WSIP Rate Year 2:</u>					
11	Debt	50.00%	3,591,522	4.64%	2.32%	\$166,647
12	Equity	50.00%	3,591,522	10.70%	5.35%	\$384,293
13	Total	100.00%	\$7,183,044		7.67%	\$550,940
	<u>Proposed Rates - WSIP Rate Year 3:</u>					
14	Debt	50.00%	4,113,889	4.64%	2.32%	\$190,884
15	Equity	50.00%	4,113,890	10.70%	5.35%	\$440,186
16	Total	100.00%	\$8,227,779		7.67%	\$631,071

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule D-2b
Updated 09/19/2022

Sewer Bradfield Farms - Fairfield Harbour - Treasure Cove
Rate Base Return

Line No.	Description	Capitalization Ratio [A]	Original Cost Rate Base [B]	Embedded Cost [C]	Overall Cost Rate [D]	Net Operating Income [E]
8	<u>Present Rates:</u>					
9	Debt	50.00%	4,910,309	4.64%	2.32%	\$227,838
10	Equity	50.00%	4,910,309	5.59%	2.80%	\$274,702
11	Total	100.00%	\$9,820,618		5.12%	\$502,541
	<u>Proposed Rates - Base Case:</u>					
12	Debt	50.00%	4,910,352	4.64%	2.32%	\$227,840
13	Equity	50.00%	4,910,351	10.45%	5.23%	\$513,132
14	Total	100.00%	\$9,820,703		7.55%	\$740,972
	<u>Proposed Rates - WSIP Rate Year 1:</u>					
15	Debt	50.00%	5,470,237	4.64%	2.32%	\$253,819
16	Equity	50.00%	5,470,238	10.70%	5.35%	\$585,315
17	Total	100.00%	\$10,940,475		7.67%	\$839,134
	<u>Proposed Rates - WSIP Rate Year 2:</u>					
18	Debt	50.00%	7,851,852	4.64%	2.32%	\$364,326
19	Equity	50.00%	7,851,852	10.70%	5.35%	\$840,148
20	Total	100.00%	\$15,703,704		7.67%	\$1,204,474
	<u>Proposed Rates - WSIP Rate Year 3:</u>					
21	Debt	50.00%	9,397,209	4.64%	2.32%	\$436,031
22	Equity	50.00%	9,397,208	10.70%	5.35%	\$1,005,501
23	Total	100.00%	\$18,794,417		7.67%	\$1,441,532

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule D-2b
Updated 09/19/2022

Rate Base Return

Column Calculations:

[A]- Company's capital structure, updated as of March 31, 2022

[B]- Company's Rate Base at end of each period (13mo average for WSIP Periods)

[C]-Embedded cost rate from Schedule D-1

[D]- Column [A]*[C]

[E]- Column [B]*[D]

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule D-3b
Updated 09/19/2022

Water		Bradfield Farms - Fairfield Harbour - Treasure Cove		Base Case	Base Case	WSIP	WSIP	WSIP	WSIP	WSIP	WSIP
Total Revenue Requirement					Revenue Requirement	Rate Year 1 Deductions	Rate Year 1 Revenue Requirement	Rate Year 2 Deductions	Rate Year 2 Revenue Requirement	Rate Year 3 Deductions	Rate Year 3 Revenue Requirement
Line No.	Description	Retention Factors	Deductions								
		[A]	[B]		[C]	[D]	[E]	[F]	[G]	[H]	[I]
	<u>Operating revenue deductions:</u>										
1	Maintenance expenses		408,040			456,507		466,698		478,549	
2	General expenses		1,125,041			1,195,426		1,238,459		1,279,886	
3	Depreciation expense		205,217			250,450		283,593		308,493	
4	Amortization of CIAC		(57,707)			(57,707)		(57,707)		(57,707)	
5	Amortization of PAA		15,854			15,854		15,854		15,854	
6	Amortization of ITC		-			-		-		-	
7	TOPI		42,998			46,019		48,567		50,650	
8	Total operating revenue deductions	0.998700	<u>1,739,444</u>		1,741,708	<u>1,906,549</u>	1,909,031	<u>1,995,465</u>	1,998,062	<u>2,075,725</u>	2,078,427
9	<u>Net operating income for a return:</u>										
10	Debt service return	0.998700	\$84,640		84,750	\$130,033	130,202	\$166,647	166,864	\$190,884	191,133
11	Equity return	0.769248	\$190,622		247,804	\$299,861	389,810	\$384,293	499,570	\$440,186	572,229
12											
13	Adjustment for revenues not subject to GRT	0.998700	0		0	0	0	0	0	0	0
14											
15	Revenue requirement				<u>\$2,074,262</u>		<u>\$2,429,043</u>		<u>\$2,664,496</u>		<u>\$2,841,789</u>
Sewer		Bradfield Farms - Fairfield Harbour - Treasure Cove		Base Case	Base Case	WSIP	WSIP	WSIP	WSIP	WSIP	WSIP
Total Revenue Requirement					Revenue Requirement	Rate Year 1 Deductions	Rate Year 1 Revenue Requirement	Rate Year 2 Deductions	Rate Year 2 Revenue Requirement	Rate Year 3 Deductions	Rate Year 3 Revenue Requirement
Line No.	Description	Retention Factors	Deductions								
		[A]	[B]		[C]	[D]	[E]	[F]	[G]	[H]	[I]
16	<u>Operating revenue deductions:</u>										
17	Maintenance expenses		476,180			522,880		543,060		564,043	
18	General expenses		1,151,562			1,215,651		1,266,732		1,316,074	
19	Depreciation expense		479,039			499,655		613,383		678,385	
20	Amortization of CIAC		(150,635)			(150,635)		(150,635)		(150,635)	
21	Amortization of PAA		43,850			43,850		43,850		43,850	
22	Amortization of ITC		-			-		-		-	
23	TOPI		45,838			47,579		51,201		54,141	
24	Total operating revenue deductions	0.998700	<u>2,045,833</u>		2,048,496	<u>2,178,981</u>	2,181,817	<u>2,367,590</u>	2,370,672	<u>2,505,858</u>	2,509,120
25	<u>Net operating income for a return:</u>										
26	Debt service return	0.998700	\$227,840		228,137	\$253,819	254,149	\$364,326	364,800	\$436,031	436,598
27	Equity return	0.769248	\$513,132		667,056	\$585,315	760,893	\$840,148	1,092,168	\$1,005,501	1,307,122
28											
29	Adjustment for revenues not subject to GRT	0.998700	0		0	0	0	0	0	0	0
30											
31	Revenue requirement				<u>\$2,943,689</u>		<u>\$3,196,859</u>		<u>\$3,827,640</u>		<u>\$4,252,840</u>

Column Calculations:
[A]- Retention factors from Schedule D-1
[B]- Operating Deductions from Income Statement, Return from Schedule D-2
[C]- Column [A]*[B]
[D]- Operating Deductions from Income Statement, Return from Schedule D-2
[E]- Column [A]*[D]
[F]- Operating Deductions from Income Statement, Return from Schedule D-2
[G]- Column [A]*[F]
[H]- Operating Deductions from Income Statement, Return from Schedule D-2
[I]- Column [A]*[H]

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule D-4b
Updated 09/19/2022

Water		Bradfield Farms - Fairfield Harbour - Treasure Cove			
Service Revenue Requirement		Base Case	WSIP Rate Year 1 Revenue Requirement	WSIP Rate Year 2 Revenue Requirement	WSIP Rate Year 3 Revenue Requirement
Line No.	Item	Revenue Requirement [A]	[B]	[C]	[D]
1	Revenues	1.0000	1.0000	1.0000	1.0000
2	Plus: Forfeited discounts	0.0029	0.0029	0.0029	0.0029
3	Revenues with forfeited discounts	1.0029	1.0029	1.0029	1.0029
4	Uncollectible accounts	(0.0157)	(0.0157)	(0.0157)	(0.0157)
5	Service Revenue	0.9871	0.9871	0.9871	0.9871
6	Total revenue requirement	\$2,074,262	\$2,429,043	\$2,664,496	\$2,841,789
7	Less: Misc Revenues	(7,860.60)	(7,860.60)	(7,860.60)	(7,860.60)
8	Revenues excl misc revenues	\$2,066,401	\$2,421,182	\$2,656,635	\$2,833,928
9	Retention factor	0.9871	0.9871	0.9871	0.9871
10	Service revenues	\$2,093,308	\$2,452,708	\$2,691,227	\$2,870,828

Sewer		Bradfield Farms - Fairfield Harbour - Treasure Cove			
Service Revenue Requirement		Base Case	WSIP Rate Year 1 Revenue Requirement	WSIP Rate Year 2 Revenue Requirement	WSIP Rate Year 3 Revenue Requirement
Line No.	Item	Revenue Requirement [A]	[B]	[C]	[D]
11	Revenues	1.0000	1.0000	1.0000	1.0000
12	Plus: Forfeited discounts	0.0024	0.0024	0.0024	0.0024
13	Revenues with forfeited discounts	1.0024	1.0024	1.0024	1.0024
14	Uncollectible accounts	(0.0157)	(0.0157)	(0.0157)	(0.0157)
15	Service Revenue	0.9867	0.9867	0.9867	0.9867
16	Total revenue requirement	\$2,943,689	\$3,196,859	\$3,827,640	\$4,252,840
17	Less: Misc Revenues	(12,471.26)	(12,471.26)	(12,471.26)	(12,471.26)
18	Revenues excl misc revenues	\$2,931,218	\$3,184,388	\$3,815,169	\$4,240,369
19	Retention factor	0.9867	0.9867	0.9867	0.9867
20	Service revenues	\$2,970,648	\$3,227,224	\$3,866,490	\$4,297,410

DOCKET NO. W-354, SUB 400

Carolina Water Service, Inc. of North Carolina

In the Matter of

Application by Carolina Water Service, Inc. of	)	APPLICATION FOR A GENERAL
North Carolina for Authority to Adjust and	)	INCREASE IN RATES AND
Increase Rates and Charges for Water and	)	APPROVAL OF A THREE-YEAR
Sewer Utility Service in All Service Areas of	)	WATER AND SEWER INVESTMENT
North Carolina and Approval of a Three-Year	)	PLAN
Water and Sewer Investment Plan		

W1-10 Update Filing – 09/19/2022

W1-10 Summary of Book and Pro-Forma Adjustments – Base Case

W-10 Narrative of Book and Pro-Forma Adjustments – Base Case

Summary of WSIP Period Adjustments

Schedule A – Comparison – Base Case Original Filing and Update

Schedule B – Comparison – Base Case Original Filing and Update

Supplemental Schedules 2, 12, 13, 17, 18, 21, 25, 27, 29

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

WI-10
Updated 09/19/22

Table of Contents - Summary of Book and Pro-Forma Adjustments - Base Case

Adjustment #	Description	Adjustment Type	Filing Exhibit Schedule	Support Schedule	Adjustment Amount				
					Uniform Water	Uniform Sewer	BE/FH/TC Water	BE/FH/TC Sewer	Total Adjustment
1	<u>Allocation Adjustment - re-allocate Plant In-Service, A/D, ADIT based on 25% ratio for Availability ERC's:</u>								
	Plant In-Service	Book	A-1a, A-1b	Schedule 1	(218,683.26)	(130,467.71)	(26,274.20)	(26,894.29)	(402,319.47)
	Accumulated Depreciation	Book	A-2a, A-2b	Schedule 1	175,230.43	104,543.50	21,053.46	21,550.34	322,377.72
	Accumulated Deferred Income Taxes	Book	A-6a, A-6b	Schedule 1	(1,269.44)	(757.36)	(152.52)	(156.12)	(2,335.44)
2	<u>Plant Additions and Retirements / Accumulated Depreciation Retirements and Depreciation</u>								
	<u>PIS - Pro-Forma Additions net of Retirements and Insurance Proceeds through 09/30/22</u>	Pro-Forma	A-1a, A-1b	Schedule 2	4,630,608.55	3,871,896.76	229,955.92	(149,232.67)	8,583,228.56
	PIS - Pro-Forma Retirements through 09/30/22	Pro-Forma	A-1a, A-1b	Schedule 2					
	A/D - Pro-Forma Retirements through 09/30/22	Pro-Forma	A-2a, A-2b	Schedule 2					
	<u>A/D - Pro-Forma Accumulated Depreciation net of Retirements through 09/30/22</u>	Pro-Forma	A-2a, A-2b	Schedule 2	(1,367,568.13)	(1,289,150.78)	(58,446.81)	(175,558.43)	(2,890,724.15)
	Annualize Depreciation Expense through 09/30/22	Pro-Forma	B-21a, B-21b	B-21a, B-21b	522,022.37	355,818.52	39,638.03	62,675.82	980,154.73
3	<u>Adjust cash working capital for changes in maintenance and general expenses:</u>								
	Book Adjustment	Book	A-3a, A-3b	A-3a, A-3b	1,455,210.38	1,065,935.55	172,414.58	177,483.49	2,871,044.00
	Pro-Forma Adjustment	Pro-Forma	A-3a, A-3b	A-3a, A-3b	141,167.33	72,586.87	19,144.46	25,984.16	258,882.82
4	<u>Contributions in Aid of Construction - Additions and Amortization</u>								
	Pro-Forma Additions and Amortization through 09/30/22	Pro-Forma	A-4a, A-4b	A-4a, A-4b	329,745.21	339,379.53	(18,474.76)	72,995.57	723,645.54
	Annualize Amortization Expense through 09/30/22	Pro-Forma	B-23a, B-23b	B-23a, B-23b	(28,994.42)	2,811.03	(17,246.28)	(5,638.83)	(49,068.51)
5	<u>Adjust Accumulated Deferred Income Taxes - Prior Commission Orders and Unamortized Balances:</u>								
	State	Book & Pro-Forma	A-6a, A-6b	Schedule 5	(276,061.71)	(178,240.84)	(36,571.52)	(46,070.94)	(536,945.01)
	Federal	Book & Pro-Forma	A-6a, A-6b	Schedule 5	227,901.12	(498,443.08)	203,014.78	121,502.66	53,975.48
6	<u>Include Gain on Sale as approved in W-354, Sub 364</u>	Book	A-9a	Schedule 6	(196,947.00)	(92,681.00)	-	-	(289,628.00)
7	<u>Purchase Acquisition Adjustment - Amortization</u>								
	Pro-Forma Amortization through 09/30/22	Pro-Forma	A-10a, A-10b	A-10a, A-10b	58,678.98	8,716.27	(7,926.99)	(21,925.00)	37,543.26
	Annualize Amortization Expense through 09/30/22	Pro-Forma	B-22a, B-22b	B-22a, B-22b	(14,528.95)	18,437.97	4,174.68	13,629.22	21,712.92
8	<u>Include Cost Free Capital as approved in W-354, Sub 266</u>	Book	A-12a	Schedule 8	(121,791.00)	(139,708.00)	-	-	(261,499.00)
9	<u>Avg. Tax Accruals</u>								
	Adjust Property Taxes for 1/2 of property tax expense	Pro-Forma	A-13a, A-13b	A-13a, A-13b	67,984.51	52,814.62	3,873.02	4,876.76	129,548.91
	Adjust Regulatory fee for current Service Revenues * 0.13% at 1/5 accrual.	Pro-Forma	A-13a, A-13b	A-13a, A-13b	5,935.79	4,561.74	489.09	684.75	11,671.37
10	<u>Include unamortized balance of Federal Protected EDIT:</u>								
	Unamortized Federal Protected EDIT reserve	Pro-Forma	A-14a, A-14b	Schedule 10	(1,949,905.00)	(1,163,325.00)	(276,179.00)	(282,697.00)	(3,672,106.00)
	Amortization of Federal Protected EDIT	Pro-Forma	B-20a, B-20b	Schedule 10	(36,704.00)	(21,898.00)	(5,199.00)	(5,321.00)	(69,122.00)
	Unamortized NC State Tax reserve	Pro-Forma	A-14a, A-14b	Schedule 10	(717,341.00)	(427,970.00)	(86,187.00)	(88,221.00)	(1,319,719.00)
	Amortization of NC State Tax EDIT (3% to 2.5%) - 3 Year Amortization	Pro-Forma	B-20a, B-20b	Schedule 10	(28,178.00)	(16,811.00)	(3,386.00)	(3,465.00)	(51,840.00)
	<u>Adjust Deferred Charges and Amortization of Rate Case Expenses:</u>								
11	Remove all Test Year cost in Deferred Charges & Rate Case Expense balances	Book	A-15a, A-15b	A-15a, A-15b	(1,335,683.77)	(2,212,377.83)	(143,157.15)	(101,824.55)	(3,793,043.30)
12	To adjust annual rate case amortization expense	Pro-Forma	B-15a, B-15b	Schedule 12	198,781.36	118,594.39	21,925.20	22,442.56	361,743.51
13a	To adjust non-rate case expense deferred charges to reflect unamortized balances as of 4/1/2023	Pro-Forma	A-15a, A-15b	Schedule 13a	358,704.88	523,044.11	40,469.16	-	922,218.15
13b	To adjust non-rate case expense deferred charges to reflect annual amortization expense	Pro-Forma	B-6a, B-6b	Schedule 13b	(49,182.44)	(164,849.75)	(1,702.75)	17,065.88	(198,669.06)
13c	To adjustment maintenance testing expense for most recent sampling schedules	Pro-Forma	B-7a, B-7b	Schedule 13c	27,558.24	9,214.71	(19,272.49)	22,174.98	39,675.44
14	<u>Adjust Service Revenues to pro-forma present rate levels</u>	Book	B-1a, B-1b	Schedule E	2,853,462.72	1,270,571.97	448,710.54	353,560.35	4,926,305.58
	<u>Adjust Miscellaneous Revenues for pro-forma present rate levels:</u>								
15	Adjust Uncollectible Accounts	Book	B-1a, B-1b	B-2a, B-2b	114,971.90	(155,260.30)	19,605.01	(32,203.39)	(52,886.79)
16	Adjust Late Payment Charges	Book	B-1a, B-1b	B-3a, B-3b	242.95	197.68	30.18	47.87	518.68

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

W1-10
Updated 09/19/22

Table of Contents - Summary of Book and Pro-Forma Adjustments - Base Case

Adjustment #	Description	Adjustment Type	Filing Exhibit Schedule	Support Schedule	Adjustment Amount				Total Adjustment
					Uniform Water	Uniform Sewer	BE/FH/TC Water	BE/FH/TC Sewer	
17	<u>Adjust Power Expense for vendor price changes since start of Test Year</u>	Pro-Forma	B-4a, B-4b	Schedule 17	-	-	-	-	-
18	<u>Adjust Purchased Water/Purchased Sewer Expense for vendor price changes since start of Test Year</u>	Pro-Forma	B-5a	Schedule 18	33,405.96	16,025.97	-	-	49,431.93
19	<u>Adjust Chemicals Expense for vendor price changes since start of Test Year</u>	Pro-Forma	B-9a, B-9b	Schedule 19	64,925.85	174,029.56	23,274.50	14,213.95	276,443.86
20	<u>Remove Unrecoverable Expenses:</u>								
	Outside Services & Internal Time	Pro-Forma	B-20a, B-20b	Schedule 20	(45,933.98)	(27,404.48)	(5,518.84)	(5,649.09)	(84,506.39)
	Advertising	Pro-Forma	B-20a, B-20b	Schedule 20	(486.58)	(290.30)	(6.64)	(6.80)	(790.32)
	Charitable Donations	Pro-Forma	B-20a, B-20b	Schedule 20	(5,337.53)	(3,184.40)	(737.85)	(755.26)	(10,015.04)
	Penalties/Fines	Pro-Forma	B-20a, B-20b	Schedule 20	(472.84)	(5,629.85)	-	-	(6,102.69)
	Memberships and Dues (NAWC)	Pro-Forma	B-20a, B-20b	Schedule 20	(1,450.30)	(865.26)	(174.25)	(178.36)	(2,668.17)
21a	<u>Update Salaries & Wages to reflect new going level rates and head count:</u>								
	Adjustment to reflect going level pay rates and headcount	Pro-Forma	B-13a, B-13b	Schedule 21a	417,945.55	249,348.75	163,118.95	166,968.66	997,381.91
	Adjustment to reflect updated payroll taxes based on going level salary and wages update	Pro-Forma	B-25a, B-25b	Schedule 21a	43,588.18	26,004.97	13,979.97	14,309.91	97,883.03
21b	<u>Update Benefits Expenses to reflect current expense:</u>								
	Adjustment to annualize current Benefits expense	Pro-Forma	B-16a, B-16b	Schedule 21b	121,716.83	72,616.98	9,272.20	9,491.03	213,097.04
22	<u>Adjust Captime for Salaries Adjustment</u>	Pro-Forma	B-11a, B-11b	Schedule 22	89,856.77	53,608.59	10,796.51	11,051.05	165,312.92
23	<u>To Include Payment Processing Fees and Water Efficiency Program Noticing Cost</u>	Pro-Forma	B-14a, B-14b	Schedule 23	150,503.05	89,791.00	18,082.53	18,509.29	276,885.87
24	<u>Adjust rent expense for going level rates</u>	Pro-Forma	B-17a, B-17b	Schedule 24	100,148.09	59,749.40	13,166.23	13,477.42	186,541.14
25	<u>Adjust Insurance Expense to annualize current policy premiums</u>								
	General Liability Insurance	Pro-Forma	B-18a, B-18b	Schedule 25	54,651.94	32,605.67	4,295.73	4,397.11	95,950.46
	Property Insurance	Pro-Forma	B-18a, B-18b	Schedule 25	50,071.57	29,872.99	1,930.24	1,975.79	83,850.59
	Vehicle Insurance	Pro-Forma	B-18a, B-18b	Schedule 25	4,704.11	2,806.50	(602.69)	(616.91)	6,291.01
	Uninsured Losses	Pro-Forma	B-18a, B-18b	Schedule 25	(35,346.84)	(21,088.13)	287.62	294.41	(55,852.94)
	Other Insurance	Pro-Forma	B-18a, B-18b	Schedule 25	39,712.26	23,692.56	3,428.21	3,509.12	70,342.14
	Workers Compensation	Pro-Forma	B-16a, B-16b	Schedule 25	(2,539.71)	(1,515.21)	-	-	(4,054.92)
26	<u>Adjust for expenses associated with the Echota and Seven Devils acquisition</u>	Pro-Forma	B-20a	Schedule 26	243,811.00	65,171.00	-	-	308,982.00
	<u>To reflect pro-forma Corix Shared Service Cost to North Carolina</u>								
27a	Fusion ERP Rate Base	Pro-Forma	A-15a, A-15b	Schedule 27	700,940.67	418,185.29	84,216.13	86,203.68	1,289,545.77
27b	Corporate Cost	Pro-Forma	B-20a, B-20b	Schedule 27	(250,438.61)	(149,413.14)	(75,789.21)	(77,577.89)	(553,218.85)
27b	Regional Cost	Pro-Forma	B-20a, B-20b	Schedule 27	7,025.78	4,191.63	(4,694.48)	(4,805.26)	1,717.67
27b	Regulatory Expense Amortization	Pro-Forma	B-15a, B-15b	Schedule 27	13,997.10	8,350.75	1,681.71	1,721.40	25,750.96
28	<u>Adjust Regulatory Fee (Utility/Commission Tax) for proposed revenues</u>								
	Remove test year amount	Pro-Forma	B-25a, B-25b	B-25a, B-25b	(28,483.23)	(23,174.84)	-	-	(51,658.07)
	Include annualized amount to reflect going level based on proposed revenues	Pro-Forma	B-25a, B-25b	B-25a, B-25b	32,391.54	25,609.04	2,710.42	3,850.70	64,561.69

Narrative of Book and Pro-Forma Adjustments - Base Case

Adjustment #	
1	<p>Purpose: Public Staff has historically adjusted the ERC count used for allocation of corporate costs by treating availability customers as 0.25 of 1 customer. This calculation sheet adjusts the Test Year amounts based on Test Year ended 3/31/2021 ERC counts, with all Utilities, Inc. availability customers treated as 0.25 customers.</p> <p>Method: CWSNC took Test Year ended customer counts per the Company's ERP system and recalculated total ERCs by subsidiary of Utilities, Inc. by treating availability customers as 0.25 customers. CWSNC recalculated the allocated costs at the updated ERC allocation percentage and allocated to the Rate Divisions based on their Test Year end ERC counts. This is a one time manual adjustment that flows through all WSIP periods and does not need additional adjustments.</p>
2	<p>Purpose: To include estimated capital investment spend, retirements, accumulated depreciation, and annualized depreciation expense through the base case cutoff period and Water Sewer Investment Plan period.</p> <p>Method: Add plant in service and retirements on a monthly basis through the base case cutoff and Water Sewer Investment Plan period. Annualize expected depreciation expense and calculate accumulated depreciation through the periods based on a thirteen month average rate base.</p> <p>Update: Updated capital investment plan with most up to date information including expected in-service dates, estimates at completion, and retirement amounts. Incorporated actual plant in service, accumulated depreciation, and CIAC through the close of 08/31/22. Attributed \$717,020.85 in Hurricane Florence insurance proceeds to applicable assets in a manner similar to that approved in Sub 364.</p>
3	<p>Purpose: To recalculate book and pro-forma Cash Working Capital based on accumulated adjustments to O&M expenses.</p> <p>Method: Total Per Books Adjustment, Column A, captures the matching Column A on the Income Statement Schedule B for the applicable Rate Division. Total Pro-Forma Adjustment, Column B, captures the matching Column B on the Income Statement Schedule B for the applicable Rate Division. The amount is the sum on Income Statement B for the total General or Maintenance Expenses. Purchased Water and Sewer Expenses are excluded from the Cash Working Capital rate base amount. Cash Working Capital is calculated as 1/8th of the total Pro-Forma Proposed General and Maintenance Expenses.</p>
4	<p>Purpose: Adjust for accumulated amortization of CIAC through 09/30/22, the expected roll-forward and cutoff date.</p> <p>Method: Adjust for accumulated amortization of CIAC through 09/30/22, the expected roll-forward and cutoff date. Annualize CIAC amortization expense based on end of period totals.</p>

Narrative of Book and Pro-Forma Adjustments - Base Case

<u>Adjustment #</u>	
5	<p>Purpose: To adjust book balances of ADIT for each Rate Division per approved adjustments in prior orders, as well as for pro-forma balances in deferred rate case expense and unamortized deferred maintenance (Schedule A-14a and b).</p> <p>Method: Utilized book balances for Uniform and BF/FH/TC consolidated (Water/Sewer) rate divisions. Combined with adjustments in prior cases Sub 344 and Sub 354. Then took pro-forma deferred rate case expense multiplied by effective tax rate for federal and state to determine ADIT for rate case costs, resulting in adjustment for Column C. Did the same for Deferred Maintenance (Schedule A-14a), resulting in adjustment for Column D.</p> <p>Column F identifies the allocation method for the Rate Divisions. Pro-forma values for these allocation factors were used to allocate between Water and Sewer, and rate groups. Please see Excel Workpaper for identification of allocation factor inputs and prior case values.</p>
6	<p>Purpose: To incorporate gain on sale and flow back of taxes per order issued in W-354, Sub 384.</p> <p>Method: Identified Gain on Sale and Flowback of Taxes balance as utilized by Public Staff in Sub 384 , consistent with workpapers included in Sub 384 filing and resulting Final Order.</p>
7	<p>Purpose: Adjust for accumulated amortization of PAA through 09/30/22, the expected roll-forward and cutoff date.</p> <p>Method: Adjust for accumulated amortization of PAA through 09/30/22, the expected roll-forward and cutoff date. Annualize PAA amortization expense based on end of period totals.</p>
8	<p>Purpose: To incorporate cost free capital as identified in W-354, Sub 266 for gross-up on CIAC received but not refunded to developers for sold systems. No amortization to be included with this rate base deduction.</p> <p>Method: Identified Cost Free Capital balance as utilized by Public Staff in Sub 360 (Henry Schedule 2-10), consistent with workpapers included in Sub 266 filing and resulting Final Order.</p>

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

W1-10
Updated 09/19/22

Narrative of Book and Pro-Forma Adjustments - Base Case

Adjustment #	
9	<p>Purpose: To adjust Regulatory Fee book amounts in Average Tax Accruals for pro-forma present rate service revenues.</p> <p>Method: The Company removed the book balances as a Per Books Adjustment. The Pro-Forma Adjustment multiplies the Regulatory Fee rate of 0.13% by the pro-forma present rate service revenues in Column F, Schedules B-1a and b. 1/5th of the resulting value is used as a rate base deduction.</p>
10	<p>Purpose: To provide updated balances and resulting amortization levels for the federal protected excess deferred income tax regulatory liability. To provide for adjustments related to the eventual decline of the NC state corporate income tax to 0%. Once the corporate tax rate is set to 0% in 2030, the remaining protected balance will be amortized over the life of the transactions that generated the deferred taxes.</p> <p>Method: This adjustment summarizes the federal protected EDIT balances as set in Sub 384 and updated through 03/31/23 for rate base and amortization updates. Further Include the reallocation of NC state income taxes from ADIT to a regulatory liability due to the eventual reduction of NC State Corporate tax rate to 0% by 2030. Additionally, unamortized EDIT associated with the NC state corporate income tax rate change from 3% to 2.5% was identified, those amounts are proposed to amortize back to customers over the three year WSIP Period.</p>
11	<p>Purpose: To remove maintenance testing deferrals from Deferred Charges, and therefore rate base, as these deferrals are historically not recoverable in rate base.</p> <p>Method: Identified direct ledger balances and reversed Test Year activity to present pro-forma amounts as \$0.</p>
12	<p>Purpose: To amortize previously approved and estimated rate case expenses over the three year WSIP period.</p> <p>Method: Identified authorized deferred rate case expense from Sub 384. The 5 year</p> <p>Update: Added actual expenses incurred through 09/15/22.</p>

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

W1-10
Updated 09/19/22

Narrative of Book and Pro-Forma Adjustments - Base Case

Adjustment #	
13a and b	<p>Purpose: To determine the rate base component associated with deferred maintenance activity for the base case and through the WSIP</p> <p>To adjust Deferred Maintenance Expense for pro-forma adjustments to deferred maintenance rate base and calculate annual expense through the WSIP periods.</p> <p>Method: Removed book balances as of Test Year end for Deferred Charges and Accumulated Amortization deferred charges accounts. Updated the amortization schedules used in setting of rates in Sub 384 calculating unamortized balances for open deferrals through 3/31/2023. This anticipates rates effective from the current proceeding of 4/1/2023. Further calculated out deferred maintenance through the WSIP period based on operational expectations, using begining + ending balance for average rate base in the WSIP periods. Using approved amortization schedules from Sub 384, carried amortization activity through 3/31/2023, anticipating new rates effective 4/1/2023. Pro-forma deferred maintenance additions were included per estimated costs from operations. Deferred maintenance items from Sub 384 were annualized based on their respective March 2023 amortization expense. Estimate deferred maintenance activity and annual amortization through the WSIP periods.</p>
	<p>Update: Relabeled to Schedule 13a and 13b to clearly deliniate between the deferred maintenance adjustments.</p>
13c	<p>Purpose: To adjust Test Year Testing Expense to coincide with sampling schedules, as provided by CWSNC Water Quality Department.</p> <p>Method: The CWSNC Water Quality Department prepares and tracks schedules of sampling and testing requirements by system, including frequency and costs. All costs are annualized to generate a levelized accrued cost - for example, a test required every 5 years will have 1/5th the most recent cost included in the pro-forma schedule. The most recent actual cost for each test/sample is what is being annualized and levelized. Only compared to Direct testing expenses, allocated testing expenses represent PFAS and PFOA testing booked at the cost center level.</p> <p>Update: This is a new adjustment to better account for current sampling schedules.</p>
14	<p>Purpose: To reflect, as an direct Per Books Adjustment, the difference between direct ledger service revenues and End of Period Revenues at Present Rates, as shown in Schedule E.</p> <p>Method: Identified End of Period Pro-Forma Present Rate Revenues for each applicable Rate Division from Schedule E, and used that value in Column C for Service Revenues, Schedules B-1a and b. The resulting difference between direct ledger Service Revenues and this value is reflected in Column B of Schedules B-1a and b.</p> <p>Update: Update to reflect current revenues using the most recent purchased water and sewer treatment rates.</p>

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

W1-10
Updated 09/19/22

Narrative of Book and Pro-Forma Adjustments - Base Case

<u>Adjustment #</u>	
15	<p>Purpose: Adjust uncollectibles expense for the test year and WSIP periods.</p> <p>Method: Calculate a uncollectibles/bad debt expense during the test year and apply that rate to all pro-forma periods. Allocate uncollectibles in total between water and sewer rate groups.</p>
16	<p>Purpose: Adjust late fees revenue for the test year and WSIP periods.</p> <p>Method: Calculate late fees revenue during the test year and apply that rate to all pro-forma periods.</p>
17	<p>Purpose: To adjust Test Year actual power expenses for rate changes from vendors occurring after the start of the Test Year (4/1/2021). This allows for pro-forma adjustments to reflect the annualized costs for Power Expense for CWSNC in this rate case.</p> <p>Method: The Company has not identified any increases but is using this spot as a placeholder for expense updates through the update period.</p>
18	<p>Purpose: To adjust Test Year actual purchased services expenses for rate changes from vendors occurring after the start of the Test Year (4/1/2021). This allows for pro-forma adjustments to reflect the annualized costs for Purchased Water/Sewer Treatment Expense for CWSNC in this rate case.</p> <p>Method: The Company reviewed bills from and corresponded with its vendors to identify where rates changed since 4/1/2021, or who had issued notice that their rates will change in the near future. CWSNC identified invoices paid during the Test Year before the effective date of the rate change and increased those bill amounts by the effective rate increase for the vendor. The Company compared invoices to the vendor website rate schedule or a copy of prior rates effective to identify the percent of rate change. Johnston County issued a notice that their rates would change as of 09/01/2021. All other rate increases noted are identified from vendor invoices or the provider's rate schedules per its website.</p> <p>Update: Updated purchased water and purchased sewer treatment rates based on the most recent rate changes from applicable vendors.</p>
19	<p>Purpose: To adjust Test Year actual chemicals expenses for rate changes from primary vendor, WaterGuard, Based on the prices effective 7/1/2022. This allows for pro-forma adjustments to reflect the annualized costs for Chemicals Expense for CWSNC in this rate case.</p> <p>Method: The Company received correspondence from WaterGuard that identified certain chemical price changes to be effective 7/1/2022. The Company identified WaterGuard invoices in the Test Year. CWSNC analyzed the detailed Test Year chemical purchasing report provided by the vendor, and used the actual quantities purchased, multiplied by the current effective prices to restate test year purchases to reflect the various price increases. The Company used the purchase locations provided in the detailed report to assign purchases to the Company's rate groups. The Company then calculated the difference between test year actuals, and test year quantities at current prices, to calculate the pro forma adjustments.</p>

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

W1-10
Updated 09/19/22

Narrative of Book and Pro-Forma Adjustments - Base Case

Adjustment #	
20	<p>Purpose: To remove activity during the test year for which the Company is not seeking recovery, including advertising, lobbying, penalties and fines, and contribution costs from the Test Year.</p> <p>Method: All costs related to lobbying and legislative efforts are removed from the Test Year data. These costs are already partially allocated to non-reg departments, the remainder is removed from this filing. An estimate for internal time spent on these activities is also removed for rate making purposes. This includes costs related to Public Sector Group and Sanford Law Office (Account 549000), costs related to contributions (Account 623100), advertising (621100), penalties and fines (625100), and dues apportioned for lobbying activities (629100).</p>
21a	<p>Purpose: To calculate pro-forma salaries and wages, as well as related payroll taxes, and deferred compensation.</p> <p>Method: This adjustment annualizes current pay rates as of May 15 2022 pay period. Adjustment also includes vacancies expected to be filled during the rate case at estimated pay levels. Please see the Direct Testimony of Phil Drennan for a detailed explanation of the method used to calculate these adjustments.</p> <p>Update: Annualizes current pay rates as of the most recent pay period. Includes vacancies expected to be filled at estimated pay levels. Annualize on call earnings based on most recent 6 months at new on call pay policy.</p>
21b	<p>Purpose: To calculate pro-forma benefits costs to align with current salaries and benefits enrollments.</p> <p>Method: This adjustment annualizes current benefits as of the most recent discovery request in Sub 400.</p> <p>Update: This is a new adjustment necessary to reflect current benefits expenses.</p>
22	<p>Purpose: Adjust capitalized time in order to align with requested salaries expense. Contracted project managers are not included in salaries expense during the test year and the captime reduction associated with them needs to be removed. Due to the nature of the requested WSIP, captime associated with developing a rate case will not be recurring at the same frequency as prior and should be aligned with the expected project and rate case expense recovery period.</p> <p>Method: Identified booked capitalized time in the Sub 400 rate case - test year ending 03/31/22. Remove capitalized time associated with contract project managers. Reduce FP&A captime to better align with expected rate case amortization and work. Increment capitalized time to align with salary increases in WSIP periods.</p>

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

W1-10
Updated 09/19/22

Narrative of Book and Pro-Forma Adjustments - Base Case

<u>Adjustment #</u>	
23	<p>Purpose: This adjustment reflects the charges to be incurred by the Company for payment processing fees from its outside vendor, First Billing Services, when customers use a fee-based payment method to pay their water/sewer bills. These costs are current incurred by customers at the point of transaction and not included in Company costs. Further this adjustment reflects the approximate cost of annual supplemental noticing for the water efficiency program. The transition for residential payments was approved in the Sub 384 order. Due to the timing of the order and implementation of the transactions the test year does not include the costs the company will incur for payment processing fees.</p> <p>Method: The Company generated a report for the number of customers using fee-based electronic payment methods in the first quarter of 2022. CWSNC annualized those transactions and the aggregated fees to generate a pro-forma adjustment to account for payment processing fees the Company will be incurring in the cost to serve customers going forward. The Company used the first quarter of 2022 as representative of normal operations, CWSNC only included costs incurred for residential customers.</p>
24	<p>Purpose: To annualize most current rent expense levels for lease locations in North Carolina</p> <p>Method: The Company reviewed its rental property list to identify changes in lease payments. The Company identified in its lease agreements those leases which utilize step increase rates (Charlotte Office and Charlotte Warehouse). For the Charlotte Office, the annualized lease cost at 4/1/2023 for the new office location was utilized for pro-forma purposes. For the Charlotte Warehouse, the annualized lease cost at 4/1/2023 was utilized for pro-forma purposes. All other CWSNC rent is computed as the annualization of the most recent invoice paid, as supported by the current lease agreement.</p>
25	<p>Purpose: To annualize most current insurance premiums</p> <p>Method: The Company reviewed its insurance policies for the most recent renewal period and annualized those costs. These are the same costs used in the Sub 384 rate case, new premiums have not been issued yet. The premiums were then allocated to the North Carolina regulated companies using the various allocation methodologies outlined.</p> <p>Update: The Company reviewed all current policy documents and updated to the most recent applicable policies and premiums including updated allocations as necessary. The Company included an adjustment to the Workers Compensation Insurance account # 532009 which is in Schedule B-16a and b.</p>
26	<p>Purpose: The purpose of this adjustment is to account for additional operating expenses associated with the acquisition of Echota and Seven Devils. These expenses are offset by the revenue assumptions made in this case as part of the acquisition.</p> <p>Method: Expense assumptions are made based on the expense per ERC incurred in the Sub 384 docket utilizing the final commission ordered expenses. The addendum was provided as part of the Sub 396 acquisition docket.</p>

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

W1-10
Updated 09/19/22

Narrative of Book and Pro-Forma Adjustments - Base Case

Adjustment #	
27	<p>Purpose: To include annualized pro-forma costs allocated to CWSNC from the Corix Infrastructure, Inc. Shared Services Group</p> <p>Method: Pro-forma adjustments were then made to each North Carolina regulated rate group to reflect the 2021 first quarter annualized cost. Include rate base costs associated with the Fusion - Oracle Accounting ERP system. Include amortization of the Oracle ERP Regulatory Asset starting 03/31/22.</p> <p>Update: CAM Actuals for Q2 2022 were added and the annualization was changed.</p>
28	<p>Purpose: To recalculate Regulatory Fee Expense based on Pro-Forma Proposed Revenues, inclusive of Service Revenues, Miscellaneous Revenues, and Uncollectible Accounts.</p> <p>Method: Multiplies the 0.13% Regulatory Fee rate by the Total Operating Revenues as shown on the Income Statement Schedule B, Column I.</p>
29	<p>Purpose: To identify and include in the revenue requirement expense increases through the WSIP period.</p> <p>Method: Identify which inflator is the most reasonable and apply that expense increase to each of the periods through the WSIP period. Accounts that are marked as no general inflation have a manual build addressing the level of expenses through the WSIP period.</p> <p>Update: Used most recent CPI data through August 2022 and developed a new CPI assumption for expense categories that are already receiving a pro-forma adjustment in order to not adjust certain expenses twice for the same period.</p>

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

W1-10
WSIP Periods
Updated 09/19/2022

Summary of WSIP Period Adjustments

Description	Adjustment Type	Filing Exhibit Schedule	Support Schedule	Adjustment Amount				
				Uniform Water	Uniform Sewer	BF/FH/TC Water	BF/FH/TC Sewer	Total Adjustment
<u>Plant Additions and Retirements</u>								
PIS - Additions/Retirements (13 Mo Average - 04/01/23-03/31/24)	WSIP Rate Year 1	A-1a, A-1b	Schedule 2	9,448,848.34	8,361,794.15	1,949,946.77	1,278,854.91	21,039,444.16
PIS - Additions/Retirements (13 Mo Average - 04/01/24-03/31/25)	WSIP Rate Year 2	A-1a, A-1b	Schedule 2	9,233,911.50	13,425,092.07	1,392,351.89	4,275,094.98	28,326,450.45
PIS - Additions/Retirements (13 Mo Average - 04/01/25-03/31/26)	WSIP Rate Year 3	A-1a, A-1b	Schedule 2	8,619,797.97	12,898,289.31	919,290.99	3,066,141.50	25,503,519.77

Description: This is the resulting adjustment through each of the rate years in the WSIP period. The totals are derived through inclusion of additions and retirements from Schedule 2 through each month of the rate year. Monthly balances are provided in the excel filing exhibits. This portion of the revenue requirement is set by using a 13 month average of the accumulated depreciation balances. Monthly ending balances are provided in columns AY through CU in the rate filing template excel on the Plant in Service tab.

Accumulated Depreciation								
A/D - Retirements/Depreciation (13 Mo Average - 04/01/23-03/31/24)	WSIP Rate Year 1	A-2a, A-2b	Schedule 2	(2,353,781.79)	(1,599,755.29)	(53,332.99)	(324,573.56)	(4,331,443.62)
A/D - Retirements/Depreciation (13 Mo Average - 04/01/24-03/31/25)	WSIP Rate Year 2	A-2a, A-2b	Schedule 2	(1,667,416.56)	(644,293.03)	130,612.04	333,386.41	(1,847,711.14)
A/D - Retirements/Depreciation (13 Mo Average - 04/01/25-03/31/26)	WSIP Rate Year 3	A-2a, A-2b	Schedule 2	(2,766,260.84)	(1,347,117.48)	86,293.48	(78,450.49)	(4,105,535.33)

Description: This is the resulting adjustment through each of the rate years in the WSIP period. The totals are derived through inclusion of retirements from Schedule 2 through each month of the rate year, and adding on monthly amortization. Monthly balances are provided in the excel filing exhibits. This portion of the revenue requirement is set by using a 13 month average of the accumulated depreciation balances. Monthly ending balances are provided in columns AX through CT in the rate filing template excel on the Accum Depr tab.

Cash Working Capital								
CWC (Annual Expenses - 04/01/23-03/31/24)	WSIP Rate Year 1	A-3a, A-3b	A-3a, A-3b	162,125.10	75,958.73	5,269.27	13,848.82	257,201.93
CWC (Annual Expenses - 04/01/24-03/31/25)	WSIP Rate Year 2	A-3a, A-3b	A-3a, A-3b	48,298.35	33,382.87	6,337.67	8,907.45	96,926.34
CWC (Annual Expenses - 04/01/25-03/31/26)	WSIP Rate Year 3	A-3a, A-3b	A-3a, A-3b	49,268.15	8,902.57	6,334.04	8,790.73	73,295.49

Description: This is the resulting adjustment through each of the rate years in the WSIP period. The totals are derived by calculating all of the expenses for the revenue requirement in the WSIP period, removing Purchased Water and Sewer treatment expenses and multiplying the remaining expenses by 1/8th for working capital.

Contributions in Aid of Construction								
CIAC - Amortization (13 Mo Average - 04/01/23-03/31/24)	WSIP Rate Year 1	A-4a, A-4b	A-4a, A-4b	733,559.79	625,462.30	57,706.84	150,635.14	1,567,364.08
CIAC - Amortization (13 Mo Average - 04/01/24-03/31/25)	WSIP Rate Year 2	A-4a, A-4b	A-4a, A-4b	733,559.79	625,462.30	57,706.84	150,635.14	1,567,364.08
CIAC - Amortization (13 Mo Average - 04/01/25-03/31/26)	WSIP Rate Year 3	A-4a, A-4b	A-4a, A-4b	733,559.79	625,462.30	57,706.84	150,635.14	1,567,364.08

Description: This is the resulting adjustment through each of the rate years in the WSIP period. The totals are derived through calculating amortization each month of the rate year. Monthly balances are provided in the excel filing exhibits. This portion of the revenue requirement is set by using a 13 month average of the CIAC and Accumulated CIAC balances. Monthly ending balances are provided in columns AQ through CM in the rate filing template excel on the CIAC tab.

Purchase Acquisition Adjustment								
PAA - Amortization (13 Mo Average - 04/01/23-03/31/24)	WSIP Rate Year 1	A-10a, A-10b	A-10a, A-10b	117,357.96	17,432.54	(15,853.98)	(43,850.00)	75,086.52
PAA - Amortization (13 Mo Average - 04/01/24-03/31/25)	WSIP Rate Year 2	A-10a, A-10b	A-10a, A-10b	117,357.96	17,432.54	(15,853.98)	(43,850.00)	75,086.52
PAA - Amortization (13 Mo Average - 04/01/25-03/31/26)	WSIP Rate Year 3	A-10a, A-10b	A-10a, A-10b	117,357.96	17,432.54	(15,853.98)	(43,850.00)	75,086.52

Description: This is the resulting adjustment through each of the rate years in the WSIP period. The totals are derived through calculating amortization each month of the rate year. Monthly balances are provided in the excel filing exhibits. This portion of the revenue requirement is set by using a 13 month average of the PAA and Accumulated PAA balances. Monthly ending balances are provided in columns AK through CG in the rate filing template excel on the PAA tab.

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

W1-10
WSIP Periods
Updated 09/19/2022

Summary of WSIP Period Adjustments

Description	Adjustment Type	Filing Exhibit Schedule	Support Schedule	Adjustment Amount				
				Uniform Water	Uniform Sewer	BF/FH/TC Water	BF/FH/TC Sewer	Total Adjustment
Average Tax Accruals								
Average Tax Accrual (Annual Expense - 04/01/23-03/31/24)	WSIP Rate Year 1	A-13a, A-13b	A-13a, A-13b	5,971.80	4,773.73	1,172.31	529.21	12,447.04
Average Tax Accrual (Annual Expense - 04/01/24-03/31/25)	WSIP Rate Year 2	A-13a, A-13b	A-13a, A-13b	5,206.16	6,569.10	794.61	1,427.49	13,997.36
Average Tax Accrual (Annual Expense - 04/01/25-03/31/26)	WSIP Rate Year 3	A-13a, A-13b	A-13a, A-13b	4,827.73	6,251.27	530.36	1,016.61	12,625.98

Description: This is the resulting adjustment through each of the rate years in the WSIP period. The totals are derived by calculating all of the expenses for the revenue requirement in the WSIP period. Property taxes are accrued to rate base at 1/2 of the expense, regulatory fees are accrued to rate base at 1/5 of the expense.

Excess Deferred Income Taxes								
EDIT (Manual Build - 04/01/23-03/31/24)	WSIP Rate Year 1	A-14a, A-14b	Schedule 10	23,828.00	14,216.00	3,375.00	3,454.00	44,873.00
EDIT (Manual Build - 04/01/24-03/31/25)	WSIP Rate Year 2	A-14a, A-14b	Schedule 10	47,655.00	28,432.00	6,749.00	6,909.00	89,745.00
EDIT (Manual Build - 04/01/25-03/31/26)	WSIP Rate Year 3	A-14a, A-14b	Schedule 10	47,656.00	28,431.00	6,750.00	6,909.00	89,746.00

Description: A full build for excess deferred income taxes through each of the WSIP rate years is provided in Schedule 10.

Deferred Charges								
Deferred Charges (Manual Build - 04/01/23-03/31/24)	WSIP Rate Year 1	A-15a, A-15b	Schedule 13	93,998.09	(38,122.81)	8,370.51	40,958.40	105,204.19
Deferred Charges (Manual Build - 04/01/24-03/31/25)	WSIP Rate Year 2	A-15a, A-15b	Schedule 13	127,113.53	(73,111.27)	(529.21)	30,718.80	84,191.85
Deferred Charges (Manual Build - 04/01/25-03/31/26)	WSIP Rate Year 3	A-15a, A-15b	Schedule 13	11,709.91	(61,229.03)	(16,317.50)	(20,479.20)	(86,315.82)

Description: A full build for deferred charges through each of the WSIP rate years is provided in Schedule 13a.

Expense Adjustments								
Expense Adjustments (04/01/23-03/31/24)	WSIP Rate Year 1	B	Schedule 29	1,700,374.44	1,486,494.91	258,907.45	255,518.99	3,701,295.79
Expense Adjustments (04/01/23-03/31/24)	WSIP Rate Year 2	B	Schedule 29	843,449.04	835,037.33	114,409.38	265,448.93	2,058,344.69
Expense Adjustments (04/01/23-03/31/24)	WSIP Rate Year 3	B	Schedule 29	760,489.20	627,885.91	97,164.20	188,147.71	1,673,687.02

Description: See attached schedule 29 for specific expense inflators used through each of the WSIP periods. Areas that do not get a generic inflationary adjustment either get no inflationary adjustment or have a manual build of expenses. Examples of accounts with specific expense builds in the WSIP periods include deferred charges, and rent.

Update: Updated expenses, rate base, and revenue requirements through each of the WSIP periods to account for updates to the Capital Investment Plan based on most recent actuals and estimates, expense adjustments based on most recent pro-forma adjustments, inflationary expense adjustments based on most recent CPI indices, and associated fall out adjustments such as cash working capital and taxes.

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule A
Updated 09/19/2022

Page 1 of 6

Combined Operations - CWSNC - Uniform
Rate Base and Rate of Return

Line No.	Description	As Filed Historical Test Year as adjusted	Historical Test Year as adjusted	Change	Adjustment Comments / Reference
1	Net Operating Income	7,945,137	7,486,379	(458,758)	Schedule B
2	Gross Plant In Service	245,426,681	247,065,716	1,639,035	Schedule 2
3	Accumulated Depreciation	(66,116,230)	(66,398,807)	(282,576)	Schedule 2
4	Net Plant In Service	179,310,451	180,666,910	1,356,458	
5	Cash Working Capital	2,695,900	2,734,900	39,000	Per O&M Updates
6	Contributions In Aid of Construction	(32,914,023)	(32,924,394)	(10,371)	Schedule 2
7	Advances in Aid of Construction	(32,940)	(32,940)	-	
8	Accumulated Deferred Income Taxes	(5,732,526)	(5,732,526)	-	
9	Customer Deposits	(333,102)	(333,102)	-	
10	Inventory	146,742	146,742	-	
11	Gain on Sale and Flowback Taxes	(289,628)	(289,628)	-	
12	Net Plant Acquisition Adjustment	(1,388,105)	(1,388,105)	-	
13	Excess Book Value	-	-	-	
14	Cost Free Capital	(261,499)	(261,499)	-	
15	Average Tax accruals	131,297	131,297	0	At 0.13% Rate
16	Excess Deferred Taxes	(4,258,541)	(4,258,541)	-	
17	Deferred Charges	1,999,596	2,000,875	1,279	Schedule 13a
18	Total Rate Base	139,073,622	140,459,988	1,386,366	
19	Return on Rate Base	5.71%	5.33%		

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Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule A
Updated 09/19/2022

Water Operations - CWSNC - Uniform
Rate Base and Rate of Return

Page 2 of 6

Line No.	Description	As Filed	Historical Test	Change	Adjustment Comments / Reference
		Historical Test Year as adjusted	Year as adjusted		
1	Net Operating Income	4,165,800	3,912,725	(253,075)	Schedule B
2	Gross Plant In Service	129,459,588	130,462,447	1,002,859	Schedule 2
3	Accumulated Depreciation	(36,543,210)	(36,715,615)	(172,405)	Schedule 2
4	Net Plant In Service	92,916,378	93,746,832	830,454	
5	Cash Working Capital	1,581,977	1,596,378	14,400	Per O&M Updates
6	Contributions In Aid of Construction	(16,487,727)	(16,524,392)	(36,665)	Schedule 2
7	Advances in Aid of Construction	(20,631)	(20,631)	-	
8	Accumulated Deferred Income Taxes	(2,667,340)	(2,667,340)	-	
9	Customer Deposits	(208,631)	(208,631)	-	
10	Inventory	91,908	91,908	-	
11	Gain on Sale and Flowback Taxes	(196,947)	(196,947)	-	
12	Net Plant Acquisition Adjustment	(1,784,523)	(1,784,523)	-	
13	Excess Book Value	-	-	-	
14	Cost Free Capital	(121,791)	(121,791)	-	
15	Average Tax accruals	73,920	73,917	(4)	At 0.13% Rate
16	Excess Deferred Taxes	(2,667,246)	(2,667,246)	-	
17	Deferred charges	1,058,845	1,059,646	801	Schedule 13a
18	Total Rate Base	71,568,193	72,377,180	808,987	
19	Return on Rate Base	5.82%	5.41%		

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Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule A
Updated 09/19/2022

Sewer Operations - CWSNC - Uniform
Rate Base and Rate of Return

Page 3 of 6

Line No.	Description	As Filed Historical Test Year as adjusted	Historical Test Year as adjusted	Change	Adjustment Comments / Reference
1	Net Operating Income	3,779,337	3,573,653	(205,683)	Schedule B
2	Gross Plant In Service	115,967,093	116,603,269	636,176	Schedule 2
3	Accumulated Depreciation	(29,573,021)	(29,683,192)	(110,172)	Schedule 2
4	Net Plant In Service	86,394,073	86,920,077	526,004	
5	Cash Working Capital	1,113,923	1,138,522	24,600	Per O&M Updates
6	Contributions In Aid of Construction	(16,426,296)	(16,400,002)	26,294	Schedule 2
7	Advances in Aid of Construction	(12,309)	(12,309)	-	
8	Accumulated Deferred Income Taxes	(3,065,187)	(3,065,187)	-	
9	Customer Deposits	(124,471)	(124,471)	-	
10	Inventory	54,833	54,833	-	
11	Gain on Sale and Flowback Taxes	(92,681)	(92,681)	-	
12	Net Plant Acquisition Adjustment	396,418	396,418	-	
13	Excess Book Value	-	-	-	
14	Cost Free Capital	(139,708)	(139,708)	-	
15	Average Tax accruals	57,376	57,380	4	At 0.13% Rate
16	Excess Deferred Taxes	(1,591,295)	(1,591,295)	-	
17	Deferred Charges	940,752	941,229	478	Schedule 13a
18	Total Rate Base	67,505,429	68,082,808	577,379	
19	Return on Rate Base	5.60%	5.25%		

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Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule A
Updated 09/19/2022

Combined Operations - Bradfield Farms - Fairfield Harbour - Treasure Cove
Rate Base and Rate of Return

Page 4 of 6

Line No.	Description	As Filed	Historical Test	Change	Adjustment Comments / Reference
		Historical Test	Year as		
		Year as	adjusted		
1	Net Operating Income	636,100	621,718	(14,382)	Schedule B
2	Gross Plant In Service	24,797,939	23,888,614	(909,325)	Schedule 2
3	Accumulated Depreciation	(5,945,802)	(5,964,540)	(18,738)	Schedule 2
4	Net Plant In Service	18,852,137	17,924,074	(928,063)	
5	Cash Working Capital	390,822	395,027	4,205	Per O&M Updates
6	Contributions In Aid of Construction	(4,674,804)	(4,723,993)	(49,188)	Schedule 2
7	Advances in Aid of Construction	-	-	-	
8	Accumulated Deferred Income Taxes	(413,435)	(413,435)	-	
9	Customer Deposits	(37,488)	(37,488)	-	
10	Inventory	6,790	6,790	-	
11	Gain on Sale and Flowback Taxes	-	-	-	
12	Net Plant Acquisition Adjustment	830,336	830,336	-	
13	Excess Book Value	-	-	-	
14	Cost Free Capital	-	-	-	
15	Average Tax accruals	9,924	9,924	-	At 0.13% Rate
16	Excess Deferred Taxes	(733,284)	(733,284)	-	
17	Deferred Charges	210,694	210,889	195	Schedule 13a
18	Total Rate Base	14,441,691	13,468,840	(972,851)	
19	Return on Rate Base	4.40%	4.62%		

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Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule A
Updated 09/19/2022

Water Operations - Bradfield Farms - Fairfield Harbour - Treasure Cove
Rate Base and Rate of Return

Page 5 of 6

Line No.	Description	As Filed	Historical Test	Change	Adjustment Comments / Reference
		Historical Test Year as adjusted	Year as adjusted		
1	Net Operating Income	109,444	119,177	9,733	Schedule B
2	Gross Plant In Service	7,383,828	7,360,146	(23,681)	Schedule 2
3	Accumulated Depreciation	(2,511,133)	(2,519,662)	(8,529)	Schedule 2
4	Net Plant In Service	4,872,695	4,840,485	(32,210)	
5	Cash Working Capital	191,476	191,559	83	Per O&M Updates
6	Contributions In Aid of Construction	(1,047,039)	(1,093,905)	(46,866)	Schedule 2
7	Advances in Aid of Construction	-	-	-	
8	Accumulated Deferred Income Taxes	(19,782)	(19,782)	-	
9	Customer Deposits	(18,525)	(18,525)	-	
10	Inventory	3,355	3,355	-	
11	Gain on Sale and Flowback Taxes	-	-	-	
12	Net Plant Acquisition Adjustment	(21,646)	(21,646)	-	
13	Excess Book Value	-	-	-	
14	Cost Free Capital	-	-	-	
15	Average Tax accruals	4,362	4,362	-	At 0.13% Rate
16	Excess Deferred Taxes	(362,366)	(362,366)	-	
17	Deferred charges	124,589	124,685	96	Schedule 13a
18	Total Rate Base	3,727,119	3,648,222	(78,897)	
19	Return on Rate Base	2.94%	3.27%		

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Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule A
Updated 09/19/2022

Sewer Operations - Bradfield Farms - Fairfield Harbour - Treasure C
Rate Base and Rate of Return

Page 6 of 6

Line No.	Description	As Filed	Historical Test	Change	Adjustment Comments / Reference
		Historical Test Year as adjusted	Year as adjusted		
1	Net Operating Income	526,656	502,541	(24,115)	Schedule B
2	Gross Plant In Service	17,414,111	16,528,468	(885,643)	Schedule 2
3	Accumulated Depreciation	(3,434,669)	(3,444,878)	(10,209)	Schedule 2
4	Net Plant In Service	13,979,442	13,083,589	(895,852)	
5	Cash Working Capital	199,346	203,468	4,122	Per O&M Updates
6	Contributions In Aid of Construction	(3,627,765)	(3,630,087)	(2,322)	Schedule 2
7	Advances in Aid of Construction	-	-	-	
8	Accumulated Deferred Income Taxes	(393,654)	(393,654)	-	
9	Customer Deposits	(18,963)	(18,963)	-	
10	Inventory	3,434	3,434	-	
11	Gain on Sale and Flowback Taxes	-	-	-	
12	Net Plant Acquisition Adjustment	851,982	851,982	-	
13	Excess Book Value	-	-	-	
14	Cost Free Capital	-	-	-	
15	Average Tax accruals	5,562	5,562	-	At 0.13% Rate
16	Excess Deferred Taxes	(370,918)	(370,918)	-	
17	Deferred Charges	86,105	86,204	99	Schedule 13a
18	Total Rate Base	10,714,572	9,820,618	(893,954)	
19	Return on Rate Base	4.92%	5.12%		

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Dep 05 2022

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule B
Updated 09/19/2022

Combined Operations - CWSNC - Uniform
Income Statement

Page 1 of 6

Line No.	Description	Historical Test Year as adjusted	Historical Test Year as adjusted	Change	Adjustment Comments / Reference
1	Operating Revenues				
2	Service Revenues - Water	22,829,960	22,816,174	(13,786)	Schedule E
3	Service Revenues - Sewer	17,545,162	17,559,952	14,790	Schedule E
4	Miscellaneous Revenues	163,935	163,935	-	
5	Forfeited Discounts	-	-	-	
6	Uncollectible Accounts	(394,432)	(394,441)	(10)	Uncollectibles Calc.
7	Total Operating Revenues	40,144,625	40,145,620	995	
8	Maintenance Expenses				
9	Purchased Power	1,911,563	1,911,563	-	
10	Purchased Water / Sewer	2,694,987	2,713,997	19,011	Schedule 18
11	Maintenance and Repair	2,863,785	2,863,785	-	
12	Maintenance Testing	464,173	500,946	36,773	Schedule 13c
13	Meter Reading	232,361	232,361	-	
14	Chemicals	743,896	982,851	238,955	Schedule 19
15	Transportation	448,017	448,017	-	
16	Operating Exp. Charged to Plant	(719,843)	(719,843)	-	
17	Outside Services - Other	198,599	198,599	-	
18	Total Maintenance Expenses	8,837,536	9,132,275	294,739	
19	General Expenses				
20	Salaries and Wages	6,268,060	6,306,482	38,422	Schedule 21a
21	Office Supplies & Other Office Exp.	509,704	509,704	-	
22	Regulatory Commission Exp.	639,303	639,329	26	Schedule 27b
23	Pension & Other Benefits	1,368,251	1,558,530	190,279	Schedule 21b
24	Rent	338,152	338,152	-	
25	Insurance	1,058,584	1,140,619	82,035	Schedule 25
26	Office Utilities	287,530	287,530	-	
27	Miscellaneous	4,955,065	4,680,577	(274,488)	Schedule 27b
28	Total General Expenses	15,424,650	15,460,923	36,273	
29	Depreciation	7,230,215	7,491,333	261,117	Annualized Filing Exh.
30	Amortization of PAA	(134,790)	(134,790)	-	
31	Amortization of CIAC	(1,358,992)	(1,359,022)	(30)	Annualized Filing Exh.
32	Amortization of ITC	(519)	(519)	-	
33	Payroll Taxes	481,522	486,015	4,493	Schedule 21a
34	Franchise Tax	120,946	120,946	-	
35	Gross Receipts Tax	-	-	-	
36	Property Taxes	241,598	241,598	-	
37	Special Assessments	-	-	-	
38	Utility/Commission Tax	-	-	-	
39	Other General Taxes	(16,288)	(16,288)	-	
40	Income Taxes - Federal	1,224,141	1,102,193	(121,949)	
41	Income Taxes - State	149,468	134,578	(14,890)	
42	Total	7,937,301	8,066,043	128,742	
43	Total Operating Expenses	32,199,488	32,659,242	459,754	
44	Net Operating Income	7,945,137	7,486,378	(458,759)	
45	Other Income	-	-	-	
46	Interest During Construction	-	-	-	
47	Interest on Debt	3,340,034	3,340,034	-	
48	Net Income	4,605,103	4,146,344	(458,759)	
49	Add: Interest Expense	3,340,034	3,340,034	-	
50	Net Income for Return	7,945,137	7,486,378	(458,759)	

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Dep 05 2022

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule B
Updated 09/19/2022

Water Operations - CWSNC - Uniform
Income Statement

Page 2 of 6

Line No.	Description	Historical Test Year as adjusted	Historical Test Year as adjusted	Change	Adjustment Comments / Reference
1	Operating Revenues				
2	Service Revenues - Water	22,829,960	22,816,174	(13,786)	Schedule E
3	Service Revenues - Sewer	-	-	-	Schedule E
4	Miscellaneous Revenues	90,390	90,390	-	
5	Forfeited Discounts	-	-	-	
6	Uncollectible Accounts	(223,030)	(222,895)	135	Uncollectibles Calc.
7	Total Operating Revenues	22,697,320	22,683,669	(13,651)	
8	Maintenance Expenses				
9	Purchased Power	1,073,063	1,073,063	-	
10	Purchased Water / Sewer	1,657,368	1,665,457	8,089	Schedule 18
11	Maintenance and Repair	1,201,678	1,201,678	-	
12	Maintenance Testing	167,830	195,388	27,558	Schedule 13c
13	Meter Reading	229,336	229,336	-	
14	Chemicals	330,454	395,379	64,926	Schedule 19
15	Transportation	280,606	280,606	-	
16	Operating Exp. Charged to Plant	(450,858)	(450,858)	-	
17	Outside Services - Other	124,388	124,388	-	
18	Total Maintenance Expenses	4,613,865	4,714,438	100,573	
19	General Expenses				
20	Salaries and Wages	3,925,866	3,949,931	24,065	Schedule 21a
21	Office Supplies & Other Office Exp.	319,242	319,242	-	
22	Regulatory Commission Exp.	400,414	400,430	16	Schedule 27b
23	Pension & Other Benefits	856,975	976,152	119,177	Schedule 21b
24	Rent	211,794	211,794	-	
25	Insurance	663,022	714,402	51,381	Schedule 25
26	Office Utilities	180,673	180,673	-	
27	Miscellaneous	3,141,337	2,969,417	(171,920)	Schedule 27b
28	Total General Expenses	9,699,322	9,722,041	22,719	
29	Depreciation	3,844,215	4,035,064	190,849	Annualized Filing Exh.
30	Amortization of PAA	(117,358)	(117,358)	-	
31	Amortization of CIAC	(732,820)	(733,560)	(740)	Annualized Filing Exh.
32	Amortization of ITC	(265)	(265)	-	
33	Payroll Taxes	302,217	304,405	2,188	Schedule 21a
34	Franchise Tax	66,687	66,687	-	
35	Gross Receipts Tax	-	-	-	
36	Property Taxes	135,969	135,969	-	
37	Special Assessments	-	-	-	
38	Utility/Commission Tax	-	-	-	
39	Other General Taxes	(10,202)	(10,202)	-	
40	Income Taxes - Federal	650,468	582,590	(67,877)	
41	Income Taxes - State	79,422	71,134	(8,288)	
32	Total	4,218,333	4,334,466	116,133	
33	Total Operating Expenses	18,531,520	18,770,944	239,424	
34	Net Operating Income	4,165,801	3,912,725	(253,076)	
35	Other Income	-	-	-	
36	Interest During Construction	-	-	-	
37	Interest on Debt	1,718,803	1,721,075	2,272	
38	Net Income	2,446,997	2,191,650	(255,347)	
39	Add: Interest Expense	1,718,803	1,721,075	2,272	
40	Net Income for Return	4,165,800	3,912,725	(253,075)	

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Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule B
Updated 09/19/2022

Sewer Operations - CWSNC - Uniform
Income Statement

Page 3 of 6

Line No.	Description	Historical Test Year as adjusted	Historical Test Year as adjusted	Change	Adjustment Comments / Reference
1	Operating Revenues				
2	Service Revenues - Water	-	-	-	Schedule E
3	Service Revenues - Sewer	17,545,162	17,559,952	14,790	Schedule E
4	Miscellaneous Revenues	73,544	73,544	-	
5	Forfeited Discounts	-	-	-	
6	Uncollectible Accounts	(171,402)	(171,546)	(144)	Uncollectibles Calc.
7	Total Operating Revenues	17,447,305	17,461,951	14,646	
8	Maintenance Expenses				
9	Purchased Power	838,500	838,500	-	
10	Purchased Water / Sewer	1,037,619	1,048,540	10,922	Schedule 18
11	Maintenance and Repair	1,662,107	1,662,107	-	
12	Maintenance Testing	296,343	305,558	9,215	Schedule 13c
13	Meter Reading	3,024	3,024	-	
14	Chemicals	413,442	587,472	174,030	Schedule 19
15	Transportation	167,411	167,411	-	
16	Operating Exp. Charged to Plant	(268,985)	(268,985)	-	
17	Outside Services - Other	74,211	74,211	-	
18	Total Maintenance Expenses	4,223,672	4,417,838	194,166	
19	General Expenses				
20	Salaries and Wages	2,342,194	2,356,552	14,357	Schedule 21a
21	Office Supplies & Other Office Exp.	190,462	190,462	-	
22	Regulatory Commission Exp.	238,889	238,899	10	Schedule 27b
23	Pension & Other Benefits	511,276	582,378	71,102	Schedule 21b
24	Rent	126,358	126,358	-	
25	Insurance	395,563	426,217	30,654	Schedule 25
26	Office Utilities	106,857	106,857	-	
27	Miscellaneous	1,813,728	1,711,160	(102,568)	Schedule 27b
28	Total General Expenses	5,725,328	5,738,882	13,554	
29	Depreciation	3,386,001	3,456,269	70,268	Annualized Filing Exh.
30	Amortization of PAA	(17,433)	(17,433)	-	
31	Amortization of CIAC	(626,172)	(625,462)	710	Annualized Filing Exh.
32	Amortization of ITC	(254)	(254)	-	
33	Payroll Taxes	179,305	181,610	2,305	Schedule 21a
34	Franchise Tax	54,259	54,259	-	
35	Gross Receipts Tax	-	-	-	
36	Property Taxes	105,629	105,629	-	
37	Special Assessments	-	-	-	
38	Utility/Commission Tax	-	-	-	
39	Other General Taxes	(6,086)	(6,086)	-	
40	Income Taxes - Federal	573,674	519,602	(54,071)	
41	Income Taxes - State	70,046	63,444	(6,602)	
32	Total	3,718,968	3,731,578	12,610	
33	Total Operating Expenses	13,667,968	13,888,297	220,329	
34	Net Operating Income	3,779,337	3,573,653	(205,684)	
35	Other Income	-	-	-	
36	Interest During Construction	-	-	-	
37	Interest on Debt	1,621,231	1,618,958	(2,272)	
38	Net Income	2,158,106	1,954,695	(203,411)	
39	Add: Interest Expense	1,621,231	1,618,958	(2,272)	
40	Net Income for Return	3,779,337	3,573,653	(205,683)	

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Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule B
Updated 09/19/2022

Combined Operations - Bradfield Farms - Fairfield Harbour - Treasure Cove
Income Statement

Page 4 of 6

Line No.	Description	Historical Test Year as adjusted	Historical Test Year as adjusted	Change	Adjustment Comments / Reference
1	Operating Revenues				
2	Service Revenues - Water	1,881,112	1,881,112	-	Schedule E
3	Service Revenues - Sewer	2,633,654	2,633,654	-	Schedule E
4	Miscellaneous Revenues	20,332	20,332	-	
5	Forfeited Discounts	-	-	-	
6	Uncollectible Accounts	(70,897)	(70,897)	-	Uncollectibles Calc.
7	Total Operating Revenues	4,464,200	4,464,200	-	
8	Maintenance Expenses				
9	Purchased Power	220,036	220,036	-	
10	Purchased Water / Sewer	609	609	-	Schedule 18
11	Maintenance and Repair	431,304	431,304	-	
12	Maintenance Testing	31,472	34,375	2,902	Schedule 13c
13	Meter Reading	48,643	48,643	-	
14	Chemicals	116,280	153,768	37,488	Schedule 19
15	Transportation	78,055	78,055	-	
16	Operating Exp. Charged to Plant	(132,623)	(132,623)	-	
17	Outside Services - Other	50,053	50,053	-	
18	Total Maintenance Expenses	843,828	884,219	40,391	
19	General Expenses				
20	Salaries and Wages	954,496	960,347	5,851	Schedule 21a
21	Office Supplies & Other Office Exp.	73,014	73,014	-	
22	Regulatory Commission Exp.	100,099	100,103	4	Schedule 27b
23	Pension & Other Benefits	220,632	237,332	16,700	Schedule 21b
24	Rent	51,493	51,493	-	
25	Insurance	161,201	173,693	12,492	Schedule 25
26	Office Utilities	35,135	35,135	-	
27	Miscellaneous	687,285	645,486	(41,799)	Schedule 27b
28	Total General Expenses	2,283,355	2,276,603	(6,752)	
29	Depreciation	698,831	684,256	(14,576)	Annualized Filing Exh.
30	Amortization of PAA	59,704	59,704	-	
31	Amortization of CIAC	(207,418)	(208,342)	(924)	Annualized Filing Exh.
32	Amortization of ITC	-	-	-	
33	Payroll Taxes	73,478	74,010	532	Schedule 21a
34	Franchise Tax	-	-	-	
35	Gross Receipts Tax	-	-	-	
36	Property Taxes	17,500	17,500	-	
37	Special Assessments	-	-	-	
38	Utility/Commission Tax	-	-	-	
39	Other General Taxes	(2,673)	(2,673)	-	
40	Income Taxes - Federal	54,804	50,981	(3,823)	
41	Income Taxes - State	6,692	6,225	(467)	
42	Total	700,917	681,660	(19,257)	
43	Total Operating Expenses	3,828,101	3,842,482	14,381	
44	Net Operating Income	636,099	621,718	(14,381)	
45	Other Income	-	-	-	
46	Interest During Construction	-	-	-	
47	Interest on Debt	429,932	429,932	-	
48	Net Income	206,167	191,786	(14,381)	
49	Add: Interest Expense	429,932	429,932	-	
50	Net Income for Return	636,099	621,718	(14,381)	

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Dep 05 2022

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule B
Updated 09/19/2022

Water Operations - Bradfield Farms - Fairfield Harbour - Treasure Cove
Income Statement

Page 5 of 6

Line No.	Description	Historical Test Year as adjusted	Historical Test Year as adjusted	Change	Adjustment Comments / Reference
1	Operating Revenues				
2	Service Revenues - Water	1,881,112	1,881,112	-	Schedule E
3	Service Revenues - Sewer	-	-	-	Schedule E
4	Miscellaneous Revenues	7,861	7,861	-	
5	Forfeited Discounts	-	-	-	
6	Uncollectible Accounts	(29,540)	(29,540)	-	Uncollectibles Calc.
7	Total Operating Revenues	1,859,432	1,859,432	-	
8	Maintenance Expenses				
9	Purchased Power	70,432	70,432	-	
10	Purchased Water / Sewer	609	609	-	Schedule 18
11	Maintenance and Repair	195,200	195,200	-	
12	Maintenance Testing	29,468	10,196	(19,272)	Schedule 13c
13	Meter Reading	47,602	47,602	-	
14	Chemicals	62,957	86,232	23,275	Schedule 19
15	Transportation	38,572	38,572	-	
16	Operating Exp. Charged to Plant	(65,538)	(65,538)	-	
17	Outside Services - Other	24,735	24,735	-	
18	Total Maintenance Expenses	404,038	408,040	4,002	
19	General Expenses				
20	Salaries and Wages	471,682	474,573	2,891	Schedule 21a
21	Office Supplies & Other Office Exp.	36,081	36,081	-	
22	Regulatory Commission Exp.	49,466	49,468	2	Schedule 27b
23	Pension & Other Benefits	109,030	117,282	8,252	Schedule 21b
24	Rent	25,446	25,446	-	
25	Insurance	79,660	85,834	6,173	Schedule 25
26	Office Utilities	17,363	17,363	-	
27	Miscellaneous	339,650	318,995	(20,656)	Schedule 27b
28	Total General Expenses	1,128,378	1,125,041	(3,337)	
29	Depreciation	216,218	205,217	(11,001)	Annualized Filing Exh.
30	Amortization of PAA	15,854	15,854	-	
31	Amortization of CIAC	(56,783)	(57,707)	(924)	Annualized Filing Exh.
32	Amortization of ITC	-	-	-	
33	Payroll Taxes	36,311	36,573	263	Schedule 21a
34	Franchise Tax	-	-	-	
35	Gross Receipts Tax	-	-	-	
36	Property Taxes	7,746	7,746	-	
37	Special Assessments	-	-	-	
38	Utility/Commission Tax	-	-	-	
39	Other General Taxes	(1,321)	(1,321)	-	
40	Income Taxes - Federal	(402)	724	1,126	
41	Income Taxes - State	(49)	88	138	
32	Total	217,573	207,175	(10,398)	
33	Total Operating Expenses	1,749,989	1,740,256	(9,733)	
34	Net Operating Income	109,444	119,176	9,733	
35	Other Income	-	-	-	
36	Interest During Construction	-	-	-	
37	Interest on Debt	110,957	116,453	5,496	
38	Net Income	(1,513)	2,724	4,237	
39	Add: Interest Expense	110,957	116,453	5,496	
40	Net Income for Return	109,444	119,177	9,733	

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Dep 05 2022

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule B
Updated 09/19/2022

Sewer Operations - Bradfield Farms - Fairfield Harbour - Treasure Cove
Income Statement

Page 6 of 6

Line No.	Description	Historical Test Year as adjusted	Historical Test Year as adjusted	Change	Adjustment Comments / Reference
1	Operating Revenues				
2	Service Revenues - Water	-	-	-	Schedule E
3	Service Revenues - Sewer	2,633,654	2,633,654	-	Schedule E
4	Miscellaneous Revenues	12,471	12,471	-	
5	Forfeited Discounts	-	-	-	
6	Uncollectible Accounts	(41,357)	(41,357)	-	Uncollectibles Calc.
7	Total Operating Revenues	2,604,768	2,604,768	-	
8	Maintenance Expenses				
9	Purchased Power	149,604	149,604	-	
10	Purchased Water / Sewer	-	-	-	Schedule 18
11	Maintenance and Repair	236,104	236,104	-	
12	Maintenance Testing	2,004	24,179	22,175	Schedule 13c
13	Meter Reading	1,041	1,041	-	
14	Chemicals	53,322	67,536	14,214	Schedule 19
15	Transportation	39,483	39,483	-	
16	Operating Exp. Charged to Plant	(67,085)	(67,085)	-	
17	Outside Services - Other	25,319	25,319	-	
18	Total Maintenance Expenses	439,791	476,180	36,389	
19	General Expenses				
20	Salaries and Wages	482,814	485,774	2,960	Schedule 21a
21	Office Supplies & Other Office Exp.	36,933	36,933	-	
22	Regulatory Commission Exp.	50,633	50,635	2	Schedule 27b
23	Pension & Other Benefits	111,603	120,050	8,447	Schedule 21b
24	Rent	26,047	26,047	-	
25	Insurance	81,540	87,859	6,319	Schedule 25
26	Office Utilities	17,772	17,772	-	
27	Miscellaneous	347,635	326,492	(21,143)	Schedule 27b
28	Total General Expenses	1,154,977	1,151,562	(3,416)	
29	Depreciation	482,614	479,039	(3,575)	Annualized Filing Exh.
30	Amortization of PAA	43,850	43,850	-	
31	Amortization of CIAC	(150,635)	(150,635)	-	Annualized Filing Exh.
32	Amortization of ITC	-	-	-	
33	Payroll Taxes	37,168	37,437	269	Schedule 21a
34	Franchise Tax	-	-	-	
35	Gross Receipts Tax	-	-	-	
36	Property Taxes	9,754	9,754	-	
37	Special Assessments	-	-	-	
38	Utility/Commission Tax	-	-	-	
39	Other General Taxes	(1,352)	(1,352)	-	
40	Income Taxes - Federal	55,206	50,257	(4,949)	
41	Income Taxes - State	6,741	6,136	(604)	
32	Total	483,344	474,485	(8,859)	
33	Total Operating Expenses	2,078,112	2,102,226	24,114	
34	Net Operating Income	526,655	502,541	(24,114)	
35	Other Income	-	-	-	
36	Interest During Construction	-	-	-	
37	Interest on Debt	318,975	313,479	(5,496)	
38	Net Income	207,681	189,062	(18,619)	
39	Add: Interest Expense	318,975	313,479	(5,496)	
40	Net Income for Return	526,656	502,541	(24,115)	

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Dep 05 2022

Carolina Water Service, Inc. of North Carolina
W-354, Sub 400
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Supplement to Schedule A-1a, A-1b, A-2a, A-2b

Capital Investment Plan

W1-10

Schedule 2

Updated 09/19/22

Project ID	System	Project	Rate Group	Utility Type	WSIP Period	NARUC Account	Obj. Act.	In-Service Date	Forecast EAC	Retirement Amount	Depreciation Rate	Annualized Depreciation
2021019	Supphine Valley	NC - 2021 - Supphine Valley - Sewer LS Replacement - #41 Dry Cans to Submersible w/generator	CWS - NC Uniform	Sewer	Base Case - WSIP Year 1	354.30	141208	5/31/2022	547,584	(86,207)	2.00%	10,228
2021012	Larville Ridge	NC - 2021 - Larville Ridge - Split Rock booster station replacement	CWS - NC Uniform	Water	Base Case - WSIP Year 1	304.40	141206	5/31/2022	408,565	(49,792)	2.00%	7,275
2022230	Carolina Trace	NC - 2022 - Carolina Trace - Bridge Gravity Sewer Line Replacement	CWS - NC Uniform	Sewer	Base Case - WSIP Year 1	361.20	141261	5/31/2022	214,661	(4,422)	1.00%	2,102
2021007	Crystal Mtn	NC - 2021 - Crystal Mtn - Booster building/ booster pack to get out of pit	CWS - NC Uniform	Water	Base Case - WSIP Year 1	304.40	141206	7/31/2022	105,000	-	2.00%	2,100
2020209	Stewarts Ridge	NC - 2022 - Stewarts Ridge - Well Improvement - Install rad filters - well #1	CWS - NC Uniform	Water	Base Case - WSIP Year 1	320.30	141230	7/31/2022	87,339	-	2.50%	2,183
2022067	Supphine Valley	NC - 2022 - Supphine Valley - Water Improvements - Phase 2	CWS - NC Uniform	Water	Base Case - WSIP Year 1	330.40	141231	7/31/2022	491,437	(54,819)	2.00%	8,732
2020205	Sherwood Forest	NC - 2022 - Sherwood Forest - Leak Detection/Water main/service line replacement	CWS - NC Uniform	Water	Base Case - WSIP Year 1	331.40	141232	7/31/2022	76,567	-	1.00%	786
2023004	Bradfield Farms	NC - 2023 - Bradfield Farms - WWCS Improvements (Rehab - Clean, CCTV, CIPP, Replacement)	BF-FH-TC	Sewer	WSIP Year 1	361.20	141242	10/31/2022	613,743	(12,645)	1.00%	6,011
2021005	Connectee Falls	NC - 2021 - Connectee Falls - WWCS Improvements (Rehab - Clean, CCTV, CIPP, Replacement)	CWS - NC Uniform	Sewer	Base Case - WSIP Year 1	361.20	141242	9/30/2022	363,978	(5,580)	1.00%	3,584
2022031	Whispering Pines	NC - 2022 - Whispering Pines - Water Treatment - H1 Chemical Feed (orthophosphate)	CWS - NC Uniform	Water	Base Case - WSIP Year 1	320.30	141230	9/30/2022	313,402	-	2.50%	7,833
2021013	Mt. Mitchell	NC - 2021 - Mt. Mitchell - 30k ground storage tank	CWS - NC Uniform	Water	Base Case - WSIP Year 1	330.40	141231	8/31/2022	624,476	(69,699)	2.00%	11,096
2021029	Abrington	NC - 2020 - Abrington - Abrington Sewer Collection Rehab - Phase 1 Creek Crossing	CWS - NC Uniform	Sewer	Base Case - WSIP Year 1	361.20	141242	8/31/2022	543,000	(11,227)	1.00%	5,338
2022085	Connectee Falls	NC - 2022 - Connectee Falls - Leak Detection/Water main/service line replacement	CWS - NC Uniform	Water	Base Case - WSIP Year 1	331.40	141252	8/31/2022	143,350	(4,352)	1.00%	1,390
2021008	Fairfield Harbour	NC - 2021 - Fairfield Harbour - Distribution Leak Detection / Repairs	BF-FH-TC	Water	Base Case - WSIP Year 1	331.40	141252	8/31/2022	91,962	(2,776)	1.00%	892
2022163	State Cost Center	NC - 2022 - State Cost Center - Uplift Costs	CWS - NC Uniform	Water	Base Case - WSIP Year 1	340.50	141220	9/30/2022	250,000	-	10.00%	25,000
2021020	Supphine Valley	NC - 2021 - Supphine Valley - WWCS Improvements (Rehab - Clean, CCTV, CIPP, Replacement)	CWS - NC Uniform	Sewer	Base Case - WSIP Year 1	361.20	141242	9/30/2022	161,647	(3,330)	1.00%	1,583
2021258	Mt. Carmel	NC - 2022 - Mt. Carmel - WWCS Improvement (Rehabs Clean, CCTV, Replacement, CIPP)	CWS - NC Uniform	Sewer	Base Case - WSIP Year 1	361.20	141242	9/30/2022	587,784	(12,108)	2.00%	5,757
2021026	White Oak Estates	NC - 2021 - White Oak Estates - WWTP Improvements- Filter, I&C Upgrades, Chemical Storage, Bypass to EQ	CWS - NC Uniform	Sewer	Base Case - WSIP Year 1	380.40	141253	6/30/2022	122,378	(36,570)	2.50%	2,145
2021006	Crestview	NC - 2021 - Crestview - Fracking Project	CWS - NC Uniform	Water	WSIP Year 1	307.20	141223	12/31/2022	29,298	-	2.00%	1,792
2021023	Silverton	NC - 2021 - Silverton - Wellhouse and Interconnect to Bradfield Farms	BF-FH-TC	Water	WSIP Year 1	330.40	141231	6/30/2023	1,977,702	-	2.00%	39,554
2022026	Sherwood Forest	NC - 2022 - Sherwood Forest - SCADA Systems Replacement	CWS - NC Uniform	Water	WSIP Year 1	343.00	141310	12/31/2022	170,402	(49,157)	10.00%	8,124
2022006	Connectee Falls	NC - 2022 - Connectee Falls - Well Improvement - Reduced monitoring and SCADA installation for monitoring (W)	CWS - NC Uniform	Water	WSIP Year 1	346.50	141310	12/31/2022	488,070	-	10.00%	48,807
2022030	Sugar Mountain	NC - 2022 - Sugar Mountain - WWCS Improvements (Rehab - Clean, CCTV, CIPP, Replacement)	CWS - NC Uniform	Sewer	WSIP Year 1	361.20	141242	9/30/2022	560,568	(11,547)	1.00%	5,490
2022019	Hound Ears	NC - 2023 - Hound Ears - WWCS Improvements (Rehab - Clean, CCTV, CIPP, Replacement)	CWS - NC Uniform	Sewer	WSIP Year 1	361.20	141242	2/28/2023	736,553	(5,172)	1.00%	7,214
2022011	Connectee Falls	NC - 2022 - CONNECTEE FALLS - WELL 7 FILTER UPGRADES	CWS - NC Uniform	Water	WSIP Year 1	320.30	141230	3/31/2023	16,621	-	2.50%	2,418
2022170	Connectee Falls	NC - 2022 - CONNECTEE FALLS - WELL 11 UPGRADE	CWS - NC Uniform	Water	WSIP Year 1	320.30	141230	3/31/2023	116,815	-	2.50%	2,920
2022010	Elk River	NC - 2022 - Elk River - WWTP Improvement - Replace CL2 contact Basin, recast U1 & 2 Basins	CWS - NC Uniform	Sewer	WSIP Year 2	354.40	141209	5/31/2024	389,891	(64,300)	2.50%	8,140
2022021	Larville Ridge	NC - 2022 - Larville Ridge - Replace PRV Valves - Install new Singer valves for all existing Ross valves	CWS - NC Uniform	Water	WSIP Year 1	331.40	141232	3/31/2023	252,992	(7,636)	1.00%	2,454
2024019	Nags head	NC - 2023 - Nags head - WWCS Improvements (Rehab - Clean, CCTV, CIPP, Replacement)	CWS - NC Uniform	Sewer	WSIP Year 1	361.20	141242	3/31/2023	53,302	(1,087)	1.00%	503
2022011	Fairfield Harbour	NC - 2022 - Fairfield Harbour - WWCS Improvements (Rehab - Clean, CCTV, CIPP, Replacement)	BF-FH-TC	Sewer	WSIP Year 1	361.20	141242	3/31/2023	249,139	(5,132)	1.00%	2,440
2021022	Sugar Mountain	NC - 2021 - Sugar Mountain - Piping and UV System - Phase 1	CWS - NC Uniform	Sewer	WSIP Year 1	380.40	141253	12/31/2023	1,645,986	(491,872)	2.50%	28,853
2022004	Chapel Hills	NC - 2022 - Chapel Hills - AMI Water Meter Replacement - 97	CWS - NC Uniform	Water	WSIP Year 1	334.40	141254	12/31/2023	68,411	(24,477)	3.33%	1,483
2022005	Crestview	NC - 2022 - Crestview - AMI Water Meter Replacement - 38	CWS - NC Uniform	Water	WSIP Year 1	334.40	141254	12/31/2023	27,433	(13,390)	3.33%	801
2022015	Hound Ears	NC - 2022 - Hound Ears - AMI Water Meter Replacement - 2022 - 450	CWS - NC Uniform	Water	WSIP Year 1	334.40	141254	12/31/2023	294,572	(105,930)	3.33%	6,300
2022027	Ski Mountain	NC - 2022 - Ski Mountain - AMI Water Meter Replacement - 2021 - 255	CWS - NC Uniform	Water	WSIP Year 1	334.40	141254	12/31/2023	164,218	(58,755)	3.33%	3,512
2022012	Wolf Laurel	NC - 2022 - Wolf Laurel - AMI Water Meter Replacement - 2023 - 701	CWS - NC Uniform	Water	WSIP Year 1	334.40	141254	12/31/2023	375,403	(124,527)	3.33%	7,921
2022024	Sherwood Forest	NC - 2022 - Sherwood Forest - AMI Water Meter Replacement - 2021 - 259	CWS - NC Uniform	Water	WSIP Year 1	334.40	141254	12/31/2022	267,704	(101,506)	3.33%	6,067
2023001	Bear Paw	NC - 2023 - Bear Paw - AMI Water Meter Replacement - 2023 - 360	CWS - NC Uniform	Water	WSIP Year 1	334.40	141254	12/31/2023	189,428	(67,275)	3.33%	4,051
2022002	Bent Creek	NC - 2023 - Bent Creek - AMI Water Meter Replacement - 2022 - 306	CWS - NC Uniform	Water	WSIP Year 1	334.40	141254	12/31/2023	197,482	(70,657)	3.33%	4,223
2023008	Carolina Trace	NC - 2023 - Carolina Trace - AMI Water Meter Replacement - 1800	CWS - NC Uniform	Water	WSIP Year 1	334.40	141254	12/31/2023	953,234	(304,690)	3.33%	20,386
2023015	Forest Hills	NC - 2023 - Forest Hills - AMI Meters - 127	CWS - NC Uniform	Water	WSIP Year 1	334.40	141254	12/31/2023	90,382	(32,398)	3.33%	1,533
2023018	High Vista	NC - 2023 - High Vista - AMI Water Meter Replacement - 2021 - 242	CWS - NC Uniform	Water	WSIP Year 1	334.40	141254	12/31/2023	163,138	(58,011)	3.33%	3,467
2023020	Rowersford	NC - 2023 - Rowersford - AMI Meters - 140	CWS - NC Uniform	Water	WSIP Year 1	334.40	141254	12/31/2023	81,485	(29,040)	3.33%	1,733
2023026	The Ridges	NC - 2023 - The Ridges - AMI Water meter replacement (65)	CWS - NC Uniform	Water	WSIP Year 1	334.40	141254	12/31/2023	52,443	(18,765)	3.33%	1,122
2023028	Watergryn	NC - 2023 - Watergryn - AMI Meters - 42	CWS - NC Uniform	Water	WSIP Year 1	334.40	141254	12/31/2023	40,511	(14,494)	3.33%	866
2023033	Woodhaven	NC - 2023 - Woodhaven - AMI Meters - 40	CWS - NC Uniform	Water	WSIP Year 1	334.40	141254	12/31/2023	12,433	(22,330)	3.33%	319
2021063	The Point	NC - 2021 - The Point - Interconnect with Town of Mooreville	CWS - NC Uniform	Water	WSIP Year 1	331.40	141252	3/31/2023	3,539,871	-	2.00%	35,399
2021009	Heather Glen	NC - 2021 - Heather Glen - Replace Hydrotanks (2)	CWS - NC Uniform	Water	WSIP Year 1	330.40	141231	6/30/2023	16,803	(1,874)	2.00%	299
2021023	Sugar Mountain	NC - 2022 - Sugar Mountain - Auger, PS Screen	CWS - NC Uniform	Sewer	WSIP Year 1	380.40	141253	12/31/2023	839,237	(250,790)	2.50%	14,711
2021016	Rutledge Landing	NC - 2021 - Rutledge Landing - Fibers Well & Rads	CWS - NC Uniform	Water	WSIP Year 1	320.30	141230	6/30/2023	166,590	-	2.50%	4,165
2022002	Bent Creek	NC - 2022 - Bent Creek - Drill and Develop well at current office site with nearby pipe	CWS - NC Uniform	Water	WSIP Year 1	307.20	141223	9/30/2023	250,000	-	2.00%	5,000
2021002	Bear Paw	NC - 2021 - Bear Paw - Drill New Well	CWS - NC Uniform	Water	WSIP Year 1	307.20	141223	9/30/2023	497,554	-	2.00%	9,951
2022029	Saddlewood	NC - 2022 - SADDLEWOOD - WELL LAND 2 BUILDING REPLACEMENT	CWS - NC Uniform	Water	WSIP Year 1	304.20	141204	6/30/2024	660,924	(60,547)	2.00%	11,608
2018048	Brandywine Bay	NC - 2022 - Brandywine Bay - WWTP SBR	CWS - NC Uniform	Sewer	WSIP Year 1	354.40	141209	11/30/2023	13,866,453	(2,287,038)	2.50%	289,485
2022007	Connectee Falls	NC - 2022 - Connectee Falls - Wellhouse Replacement - #4	CWS - NC Uniform	Water	WSIP Year 1	304.20	141204	9/30/2023	200,000	(24,574)	2.00%	3,513
2023008	Brandywine Bay	NC - 2023 - Brandywine Bay - WWCS Improvements (Rehab - Clean, CCTV, CIPP, Replacement)	CWS - NC Uniform	Sewer	WSIP Year 1	361.20	141242	10/31/2023	160,632	(3,309)	1.00%	1,573
2023009	Carolina Trace	NC - 2023 - Carolina Trace - WWCS Improvements (Rehab - Clean, CCTV, CIPP, Replacement)	CWS - NC Uniform	Sewer	WSIP Year 1	361.20	141242	10/31/2023	376,820	(7,762)	1.00%	3,691
2023012	Connectee Falls	NC - 2023 - Connectee Falls - WWCS Improvements (Rehab - Clean, CCTV, CIPP, Replacement)	CWS - NC Uniform	Sewer	WSIP Year 1	361.20	141242	10/31/2023	192,951	(3,974)	1.00%	1,890
2020014	Fairfield Harbour	NC - 2020 - Fairfield Harbour - WWCS Improvements (Rehab - Clean, CCTV, CIPP, Replacement)	BF-FH-TC	Sewer	WSIP Year 1	361.20	141242	10/31/2023	161,596	(3,528)	1.00%	1,582
2023023	Supphine Valley	NC - 2023 - Supphine Valley - WWCS Improvements (Rehab - Clean, CCTV, CIPP, Replacement)	CWS - NC Uniform	Sewer	WSIP Year 1	361.20	141242	10/31/2023	215,448	(4,438)	1.00%	2,110
2024025	Sugar Mountain	NC - 2024 - Sugar Mountain - WWCS Improvements (Rehab - Clean, CCTV, CIPP, Replacement)	CWS - NC Uniform	Sewer	WSIP Year 1	361.20	141242	10/31/2023	268,264	(5,526)	1.00%	2,627
2023013	Fairfield Harbour	NC - 2023 - Fairfield Harbour - Distribution Leak Detection / Repairs	BF-FH-TC	Water	WSIP Year 1	331.40	141252	12/31/2023	189,531	(5,721)	1.00%	1,838
2023022	Supphine Valley	NC - 2023 - Supphine Valley - Well 3 building replacement	CWS - NC Uniform	Water	WSIP Year 1	304.20	141204	6/30/2024	245,960	(29,968)	2.00%	4,919
2022012	Fairfield Harbour	NC - 2022 - Fairfield Harbour - WWTP Rehab - To meet nitrogen effluent limits	BF-FH-TC	Sewer	WSIP Year 2	354.40	141209	8/31/2024	6,900,000	(1,348,000)	2.50%	144,040
2023030	Wolf Laurel	NC - 2023 - Wolf Laurel - WWTP Replacement	CWS - NC Uniform	Sewer	WSIP Year 3	354.40	141209	6/30/2026	866,753	(142,956)	2.50%	18,095
2023025	The Point	NC - 2023 - The Point - Decontamination wells replaced by interconnect	CWS - NC Uniform	Water	WSIP Year 1	141.23	141223	12/31/2023	184,487	(2,574)	2.00%	2,574
2023011	Connectee Falls	NC - 2023 - Connectee Falls - Install equipment for reduced well monitoring	CWS - NC Uniform	Water	WSIP Year 1	311.30	141228	12/31/2023	166,877	-	3.33%	5,557
2023005	Bradfield Farms	NC - 2023 - Bradfield Farms - WWTP Improvement - Replace VFDs, Blowers, Motors, New Clarifiers	BF-FH-TC	Sewer	WSIP Year 1	380.40	141253	10/31/2023	188,553	(66,345)	2.50%	3,305
2022020	Kings Grant	NC - 2022 - Kings Grant - WWTP Improvements	CWS - NC Uniform	Sewer	WSIP Year 2	380.40	141253	5/31/2024	217,409	(64,969)	2.50%	5,869
2023018	Hound Ears	NC - 2023 - Hound Ears - WWTP Improvements	CWS - NC Uniform	Sewer	WSIP Year 2	380.40						

Carolina Water Service, Inc. of North Carolina
W-354, Sub 400
Test Year: March 31, 2022
WSIP Period: April 1, 2022 - March 31, 2026

W1-10

Schedule 2

Updated 09/19/22

Supplement to Schedule A-1a, A-1b, A-2a, A-2b

Capital Investment Plan

Project ID	System	Project	Rate Group	Utility Type	WSIP Period	NARUC Account	Obj. Act.	In-Service Date	Forecast EAC	Retirement Amount	Depreciation Rate	Annualized Depreciation
2024013	Hemby Acres WWTP	NC - 2024 - Hemby Acres WWTP - Replace valves and piping	CWS - NC Uniform	Sewer	WSIP Year 2	380.40	141253	9/30/2024	97,134	(29,027)	2.50%	1,793
2024014	Hemby Acres	NC - 2024 - Hemby Acres WWTP - Rehab digester tanks	CWS - NC Uniform	Sewer	WSIP Year 2	380.40	141253	9/30/2024	95,524	(28,546)	2.50%	1,674
2023029	Whispering Pines	NC - 2023 - Whispering Pines - Water Main Replacement 10.6001 P (Pine Lake and Country Club)	CWS - NC Uniform	Water	WSIP Year 2	331.40	141252	12/31/2024	980,957	(29,608)	1.00%	9,513
2023025	Pinnacle Shores	NC - 2022 - Pinnacle Shores - Water Main Relocation - DOT road widening	CWS - NC Uniform	Water	WSIP Year 2	331.40	141252	3/31/2025	1,353,666	-	1.00%	13,537
2025003	Beechbrook	NC - 2025 - Beechbrook - Water Main Replacement on Beechbrook - (3500 LF) 2" - 4"	CWS - NC Uniform	Water	WSIP Year 3	331.40	141252	6/30/2025	292,452	(8,827)	1.00%	2,836
2025006	Brandywine Bay	NC - 2025 - Brandywine Bay - Morehead City Interconnect	CWS - NC Uniform	Water	WSIP Year 3	331.40	141252	6/30/2025	167,780	-	1.00%	1,678
2025011	Fairfield Harbour	NC - 2025 - Fairfield Harbour - Distribution Leak Detection / Repairs	BF-FH-TC	Water	WSIP Year 3	331.40	141252	6/30/2025	189,552	(5,721)	1.00%	1,838
2025013	Grandview	NC - 2025 - Grandview - Replace main and valves or eliminate sections of system as we don't have that many customers	CWS - NC Uniform	Water	WSIP Year 3	331.40	141252	6/30/2025	222,047	(6,702)	1.00%	2,153
2025018	Oakdale	NC - 2025 - Oakdale - Water Main Replacement on Denise Dr and Leigh Cir - (3500 LF) 2" - 4"	CWS - NC Uniform	Water	WSIP Year 3	331.40	141252	6/30/2025	292,452	(8,827)	1.00%	2,836
2025019	Riverbend	NC - 2025 - Riverbend - Leak detection/Main Replacement	CWS - NC Uniform	Water	WSIP Year 3	331.40	141252	6/30/2025	108,254	(3,340)	1.00%	1,050
2025004	Bent Creek	NC - 2025 - Bent Creek - WWCS Improvements (Rehab - Clean, CCTV, CIPP, Replacement)	CWS - NC Uniform	Sewer	WSIP Year 3	361.20	141242	6/30/2025	133,993	(2,760)	1.00%	1,312
2025007	Carolina Trace	NC - 2025 - Carolina Trace - WWCS Improvements (Rehab - Clean, CCTV, CIPP, Replacement)	CWS - NC Uniform	Sewer	WSIP Year 3	361.20	141242	6/30/2025	379,104	(7,809)	1.00%	3,713
2025009	Conesville Falls	NC - 2025 - Conesville Falls - WWCS Improvements (Rehab - Clean, CCTV, CIPP, Replacement)	CWS - NC Uniform	Sewer	WSIP Year 3	361.20	141242	6/30/2025	303,283	(6,247)	1.00%	2,970
2025012	Fairfield Harbour	NC - 2025 - Fairfield Harbour - WWCS Improvements (Rehab - Clean, CCTV, CIPP, Replacement)	BF-FH-TC	Sewer	WSIP Year 3	361.20	141242	6/30/2025	379,104	(7,809)	1.00%	3,713
2025021	Sapphire Valley	NC - 2025 - Sapphire Valley - WWCS Improvements (Rehab - Clean, CCTV, CIPP, Replacement)	CWS - NC Uniform	Sewer	WSIP Year 3	361.20	141242	6/30/2025	215,326	(4,436)	1.00%	2,109
2025016	Hound Ears	NC - 2025 - Hound Ears - Bath House lift station replacement	CWS - NC Uniform	Sewer	WSIP Year 3	354.30	141208	6/30/2025	324,947	(21,466)	2.00%	6,069
2024006	Dunby	NC - 2024 - Dunby - WWTP Replacement - (630 M&D)	CWS - NC Uniform	Sewer	WSIP Year 3	354.40	141209	9/30/2025	18,960,000	(331,756)	2.50%	394,569
2025015	High Meadows	NC - 2025 - High Meadows - Purchase and install permanent generator at Camp Cheerio.	CWS - NC Uniform	Water	WSIP Year 3	310.20	141226	9/30/2025	245,000	-	10.00%	24,500
2025017	Nags Head	NC - 2025 - Nags Head - Lift Station Generators	CWS - NC Uniform	Sewer	WSIP Year 3	355.40	141240	9/30/2025	106,665	-	10.00%	10,667
2025005	Bradfield Farms	NC - 2025 - Bradfield Farms - interconnect to caharras county for emergency's to take plants down for maintenance on wetp's	BF-FH-TC	Sewer	WSIP Year 3	361.20	141242	9/30/2025	56,709	-	1.00%	567
2025014	Hemby Acres	NC - 2025 - Hemby Acres - Replace old or broken clay pipe and rehab manholes.	CWS - NC Uniform	Sewer	WSIP Year 3	361.20	141242	9/30/2025	86,498	(1,658)	1.00%	788
2025001	Abington	NC - 2025 - Abington - Rehab manholes because of lift issues and Lift Stations	CWS - NC Uniform	Sewer	WSIP Year 1	354.30	141208	11/30/2022	162,759	(10,762)	2.00%	3,040
2025010	Dunby	NC - 2025 - Dunby - Glen Finneran L&S replace old control cabinets	CWS - NC Uniform	Sewer	WSIP Year 3	354.30	141208	9/30/2025	58,849	(3,993)	2.00%	1,098
2025023	Various	NC - 2025 - Various - SCADA and Remote Monitoring, Caustic Feed System Upgrades	CWS - NC Uniform	Water	WSIP Year 3	346.50	141310	9/30/2025	109,313	-	10.00%	10,931
2025024	Waterglyn	NC - 2025 - Waterglyn - SCADA System Installation	CWS - NC Uniform	Water	WSIP Year 3	346.50	141310	9/30/2025	80,181	-	10.00%	8,018
2025026	Woodhaven	NC - 2025 - Woodhaven - SCADA System Installation	CWS - NC Uniform	Water	WSIP Year 3	346.50	141310	9/30/2025	80,181	-	10.00%	8,018
2025025	Whispering Pines	NC - 2025 - Whispering Pines - Water Main Replacement (Thagard Lake)	CWS - NC Uniform	Water	WSIP Year 3	331.40	141252	12/31/2023	1,092,229	(32,908)	1.00%	10,993
2020175	Carolina Trace	NC - 2021 - Carolina Trace - WWCS Improvements	CWS - NC Uniform	Sewer	Base Case - WSIP Year 1	361.20	141242	12/31/2021	637,323	(13,126)	1.00%	6,242
2022128	State Cost Center	NC - 2022 - Replace Well Monitoring - SCADA	NC Cost Center	Water	WSIP Year 1	346.50	141310	12/31/2022	402,880	-	10.00%	40,288
2022240	Misty Mountain	NC - 2022 - Misty Mountain - Water System SCADA	CWS - NC Uniform	Water	WSIP Year 1	346.50	141310	3/31/2023	130,278	-	10.00%	13,028
2022249	State Cost Center	NC - 2022 - NC State Cost Center - Western NC Leak Detection - 2022	NC Cost Center	Water	WSIP Year 1	331.40	141252	3/31/2023	61,500	(1,896)	1.00%	596
2022253	Bradfield Farms	NC - 2022 - Bradfield Farms - AMI Water Meter Replacement - 1138	BF-FH-TC	Water	WSIP Year 1	334.40	141254	12/31/2023	639,491	(228,802)	3.33%	13,676
2022254	Dunby	NC - 2022 - Dunby - AMI Water Meter Replacement - 1634	CWS - NC Uniform	Water	WSIP Year 1	334.40	141254	12/31/2023	997,088	(317,582)	3.33%	18,973
2022255	Silverton	NC - 2022 - Silverton - AMI Water Meter Replacement - 61	BF-FH-TC	Water	WSIP Year 1	334.40	141254	12/31/2023	59,910	(18,219)	3.33%	1,089
2022257	The Point	NC - 2022 - The Point - AMI Water Meter Replacement - 1583	CWS - NC Uniform	Water	WSIP Year 1	334.40	141254	12/31/2023	997,736	(356,978)	3.33%	21,337
1801	Various	NC - 2025 - NEW AMI PROJECTS NEED PROJECT #5	CWS - NC Uniform	Water	WSIP Year 2	334.40	141254	12/31/2024	2,745,000	(862,126)	3.33%	58,704

Supplement to Schedule A-1a, A-1b, A-2a, A-2b

Capital Investment Plan - Recurring Spend

Spend Category	Rate Group	Utility Type	NARUC Acct	Obj. Acct.	In-Service Date	Annualized Spend	Annualized Retirement	Depreciation Rate	Annualized Depreciation
Struct and Improv General Plant	BF-FH-TC	Sewer	354.70	141203	Rolling In Service	19,106	(2,328)	2.00%	382
Struct and Improv Collect Plant	BF-FH-TC	Sewer	354.20	141207	Rolling In Service	45	(7)	2.00%	1
Struct and Improv Pump Plant	BF-FH-TC	Sewer	354.30	141208	Rolling In Service	2,641	(175)	2.00%	53
Struct and Improv Treatment Plant	BF-FH-TC	Sewer	354.40	141209	Rolling In Service	12,580	(2,075)	2.50%	315
Power Gen Equip Pump Plt	BF-FH-TC	Sewer	355.30	141239	Rolling In Service	20,845	(10,906)	10.00%	2,084
Sewer Force Main	BF-FH-TC	Sewer	360.20	141241	Rolling In Service	11,311	(339)	1.33%	150
Sewer Gravity Main	BF-FH-TC	Sewer	361.20	141242	Rolling In Service	49,048	(1,010)	1.00%	490
Manholes	BF-FH-TC	Sewer	361.20	141243	Rolling In Service	7,274	(174)	1.00%	73
Service to Customers	BF-FH-TC	Sewer	363.20	141245	Rolling In Service	107,042	(3,207)	1.33%	1,424
Flow Measure Devices	BF-FH-TC	Sewer	364.20	141246	Rolling In Service	238	(89)	4.00%	10
Pumping Equip Pump Plt	BF-FH-TC	Sewer	371.30	141249	Rolling In Service	36,538	(24,322)	14.29%	5,221
Pumping Equip Reclaim WTP	BF-FH-TC	Sewer	371.50	141250	Rolling In Service	33,504	(22,303)	14.29%	4,788
Treat/Disp Equip Trt Plt	BF-FH-TC	Sewer	380.40	141253	Rolling In Service	34,572	(10,331)	2.50%	864
Plant Sewers Treatment Plt	BF-FH-TC	Sewer	381.40	141255	Rolling In Service	10,211	(3,051)	2.50%	255
Outfall Lines	BF-FH-TC	Sewer	382.40	141257	Rolling In Service	15,305	(485)	1.00%	153
Reuse Transmission and Dist	BF-FH-TC	Sewer	375.60	141264	Rolling In Service	350	(32)	2.00%	7
Other Plant Pump	BF-FH-TC	Sewer	389.30	141273	Rolling In Service	171	(28)	2.50%	4
Other Plant Reclaim Water Trt	BF-FH-TC	Sewer	389.50	141275	Rolling In Service	1,239	(265)	2.50%	31
Stores Equipment	BF-FH-TC	Sewer	392.70	141305	Rolling In Service	14	(5)	3.33%	0
Lab Equipment	BF-FH-TC	Sewer	394.70	141306	Rolling In Service	56	(37)	10.00%	6
Tool Shop Equipment	BF-FH-TC	Sewer	395.70	141308	Rolling In Service	2,030	(1,001)	5.00%	101
Power Operated Equipment	BF-FH-TC	Sewer	395.70	141309	Rolling In Service	2,045	(1,070)	10.00%	205
Communications Equipment	BF-FH-TC	Sewer	396.70	141310	Rolling In Service	18,330	(9,591)	10.00%	1,833
Misc Equipment	BF-FH-TC	Sewer	397.70	141311	Rolling In Service	10,823	(2,804)	3.33%	360
Vehicles	BF-FH-TC	Sewer	391.70	141401	Rolling In Service	26,720	(26,720)	20.00%	5,344
Struct and Improv General Plant	BF-FH-TC	Water	304.50	141203	Rolling In Service	377	(46)	2.00%	8
Struct and Improv Service Supplies	BF-FH-TC	Water	304.20	141204	Rolling In Service	11,921	(1,453)	2.00%	238
Struct and Improv Water Treat Plt	BF-FH-TC	Water	304.30	141205	Rolling In Service	1,373	(167)	2.00%	27
Wells and Springs	BF-FH-TC	Water	307.20	141223	Rolling In Service	8,840	(1,382)	2.00%	177
Supply Mains	BF-FH-TC	Water	309.20	141225	Rolling In Service	1,130	(64)	1.00%	11
Electric Pump Equip Sec Pump	BF-FH-TC	Water	311.20	141227	Rolling In Service	10,924	(7,272)	14.29%	1,561
Electric Pump Equip WTP	BF-FH-TC	Water	311.30	141228	Rolling In Service	15,734	(4,077)	3.33%	524
Electric Pump Equip Trans Dist	BF-FH-TC	Water	311.40	141229	Rolling In Service	10,579	(7,042)	14.29%	1,512
Water Treatment Equipment	BF-FH-TC	Water	320.30	141230	Rolling In Service	6,082	(1,601)	2.50%	152
Dist Resv and Standpipes	BF-FH-TC	Water	330.40	141231	Rolling In Service	50,794	(5,666)	2.00%	1,016
Trans and Distr Mains	BF-FH-TC	Water	331.40	141232	Rolling In Service	33,866	(1,022)	1.00%	339
Service Lines	BF-FH-TC	Water	333.40	141233	Rolling In Service	89,813	(12,782)	1.00%	1,796
Meters	BF-FH-TC	Water	334.40	141234	Rolling In Service	20,092	(7,189)	3.33%	669
Meter Installations	BF-FH-TC	Water	334.40	141235	Rolling In Service	11,753	(4,205)	3.33%	391
Hydrants	BF-FH-TC	Water	335.40	141236	Rolling In Service	7,824	(1,676)	2.50%	196
Backflow Prevention Devices	BF-FH-TC	Water	336.40	141237	Rolling In Service	135	(98)	10.00%	13
Stores Equipment	BF-FH-TC	Water	342.50	141305	Rolling In Service	34	(12)	3.33%	1
Lab Equipment	BF-FH-TC	Water	344.50	141306	Rolling In Service	915	(606)	10.00%	92
Tool Shop Equipment	BF-FH-TC	Water	343.50	141308	Rolling In Service	2,989	(1,474)	5.00%	149
Power Operated Equipment	BF-FH-TC	Water	345.50	141309	Rolling In Service	2,243	(1,173)	10.00%	224
Communications Equipment	BF-FH-TC	Water	346.50	141310	Rolling In Service	14,937	(7,815)	10.00%	1,494
Misc Equipment	BF-FH-TC	Water	347.50	141311	Rolling In Service	126	(33)	3.33%	4
Vehicles	BF-FH-TC	Water	341.50	141401	Rolling In Service	26,120	(26,120)	20.00%	5,224
Struct and Improv General Plant	CWS - NC Uniform	Sewer	354.70	141203	Rolling In Service	29,713	(3,621)	2.00%	594
Struct and Improv Collect Plant	CWS - NC Uniform	Sewer	354.20	141207	Rolling In Service	5,040	(788)	2.00%	101
Struct and Improv Pump Plant	CWS - NC Uniform	Sewer	354.30	141208	Rolling In Service	48,298	(3,194)	2.00%	966
Struct and Improv Treatment Plant	CWS - NC Uniform	Sewer	354.40	141209	Rolling In Service	59,857	(9,872)	2.50%	1,496
Struct and Improv Reclaim Wtr Dist	CWS - NC Uniform	Sewer	354.60	141211	Rolling In Service	280	(84)	2.50%	7
Power Gen Equip Pump Plt	CWS - NC Uniform	Sewer	355.30	141239	Rolling In Service	355	(185)	10.00%	35
Power Gen Equip Treat Plt	CWS - NC Uniform	Sewer	355.40	141240	Rolling In Service	29,883	(15,635)	10.00%	2,988
Sewer Force Main	CWS - NC Uniform	Sewer	360.20	141241	Rolling In Service	89,538	(2,683)	1.33%	1,191
Sewer Gravity Main	CWS - NC Uniform	Sewer	361.20	141242	Rolling In Service	160,449	(3,305)	1.00%	1,604
Manholes	CWS - NC Uniform	Sewer	361.20	141243	Rolling In Service	95,337	(2,282)	1.00%	953
Special Collection Structures	CWS - NC Uniform	Sewer	362.20	141244	Rolling In Service	300	(47)	2.00%	6
Service to Customers	CWS - NC Uniform	Sewer	363.20	141245	Rolling In Service	207,499	(6,217)	1.33%	2,760
Flow Measure Devices	CWS - NC Uniform	Sewer	364.20	141246	Rolling In Service	9,860	(3,678)	4.00%	394
Flow Measure Install	CWS - NC Uniform	Sewer	365.20	141247	Rolling In Service	29	(11)	4.00%	1
Receiving Wells	CWS - NC Uniform	Sewer	370.30	141248	Rolling In Service	44,156	(4,697)	2.00%	883
Pumping Equip Pump Plt	CWS - NC Uniform	Sewer	371.30	141249	Rolling In Service	560,414	(373,054)	14.29%	80,083
Pumping Equip Reclaim WTP	CWS - NC Uniform	Sewer	371.50	141250	Rolling In Service	3,131	(2,084)	14.29%	447
Pumping Equip Rel Wtr Dist	CWS - NC Uniform	Sewer	371.60	141251	Rolling In Service	11,566	(7,699)	14.29%	1,653
Treat/Disp Equip Lagoon	CWS - NC Uniform	Sewer	380.40	141252	Rolling In Service	8,155	(1,747)	2.50%	204
Treat/Disp Equip Trt Plt	CWS - NC Uniform	Sewer	380.40	141253	Rolling In Service	356,423	(106,510)	2.50%	8,911
Treat/Disp Equip Rchm Wtr	CWS - NC Uniform	Sewer	380.50	141254	Rolling In Service	12,013	(2,573)	2.50%	300
Plant Sewers Treatment Plt	CWS - NC Uniform	Sewer	381.40	141255	Rolling In Service	76,044	(22,724)	2.50%	1,901
Plant Sewers Reclaim Wtr	CWS - NC Uniform	Sewer	381.50	141256	Rolling In Service	240	(72)	2.50%	6
Outfall Lines	CWS - NC Uniform	Sewer	382.40	141257	Rolling In Service	44,245	(1,403)	1.00%	442
Reuse Dist Reservoirs	CWS - NC Uniform	Sewer	374.50	141263	Rolling In Service	27	(3)	2.00%	1
Reuse Transmission and Dist	CWS - NC Uniform	Sewer	375.60	141264	Rolling In Service	11,570	(1,025)	2.00%	227
Other Tangible Plant	CWS - NC Uniform	Sewer	389.10	141271	Rolling In Service	3,317	(991)	2.50%	83
Other Plant Collection	CWS - NC Uniform	Sewer	389.20	141272	Rolling In Service	154	(22)	2.00%	3

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

W1-10

Schedule 2
Updated 09/19/22

Supplement to Schedule A-1a, A-1b, A-2a, A-2b

Capital Investment Plan - Recurring Spend

Spend Category	Rate Group	Utility Type	NARUC Acct	Obj. Acct.	In-Service Date	Annualized Spend	Annualized Retirement	Depreciation Rate	Annualized Depreciation
Other Plant Pump	CWS - NC Uniform	Sewer	389.30	141273	Rolling In Service	1,688	(278)	2.50%	42
Other Plant Treatment	CWS - NC Uniform	Sewer	389.40	141274	Rolling In Service	18,549	(3,059)	2.50%	464
Stores Equipment	CWS - NC Uniform	Sewer	392.70	141305	Rolling In Service	1,253	(444)	3.33%	43
Lab Equipment	CWS - NC Uniform	Sewer	394.70	141306	Rolling In Service	11,572	(7,662)	10.00%	1,157
Tool Shop Equipment	CWS - NC Uniform	Sewer	393.70	141308	Rolling In Service	8,107	(3,999)	5.00%	405
Power Operated Equipment	CWS - NC Uniform	Sewer	395.70	141309	Rolling In Service	41,139	(21,525)	10.00%	4,114
Communications Equipment	CWS - NC Uniform	Sewer	396.70	141310	Rolling In Service	12,515	(6,548)	10.00%	1,252
Misc Equipment	CWS - NC Uniform	Sewer	397.70	141311	Rolling In Service	10,096	(2,616)	3.33%	336
Vehicles	CWS - NC Uniform	Sewer	391.70	141401	Rolling In Service	129,720	(129,720)	20.00%	25,944
Struct and Improv General Plant	CWS - NC Uniform	Water	304.50	141203	Rolling In Service	19,141	(2,333)	2.00%	383
Struct and Improv Service Supplies	CWS - NC Uniform	Water	304.20	141204	Rolling In Service	41,654	(5,076)	2.00%	833
Struct and Improv Water Treat Plt	CWS - NC Uniform	Water	304.30	141205	Rolling In Service	70,355	(8,574)	2.00%	1,407
Struct and Improv Trans Dist Plt	CWS - NC Uniform	Water	304.40	141206	Rolling In Service	10,964	(1,336)	2.00%	219
Wells and Springs	CWS - NC Uniform	Water	307.20	141223	Rolling In Service	88,816	(13,889)	2.00%	1,776
Supply Mains	CWS - NC Uniform	Water	309.20	141225	Rolling In Service	112,908	(3,408)	1.00%	1,129
Power Generation Equipment	CWS - NC Uniform	Water	310.20	141226	Rolling In Service	1,298	(679)	10.00%	130
Electric Pump Equip Sec Pump	CWS - NC Uniform	Water	311.20	141227	Rolling In Service	173,887	(115,753)	14.29%	24,848
Electric Pump Equip WTP	CWS - NC Uniform	Water	311.30	141228	Rolling In Service	388,855	(100,753)	3.33%	12,949
Electric Pump Equip Trans Dist	CWS - NC Uniform	Water	311.40	141229	Rolling In Service	307,126	(204,446)	14.29%	43,888
Water Treatment Equipment	CWS - NC Uniform	Water	320.30	141230	Rolling In Service	235,576	(61,974)	2.50%	5,884
Dist Resv and Standpipes	CWS - NC Uniform	Water	330.40	141231	Rolling In Service	155,753	(17,374)	2.00%	3,115
Trans and Distr Mains	CWS - NC Uniform	Water	331.40	141232	Rolling In Service	1,032,302	(31,159)	1.00%	10,323
Service Lines	CWS - NC Uniform	Water	333.40	141233	Rolling In Service	998,861	(142,160)	2.00%	19,977
Meters	CWS - NC Uniform	Water	334.40	141234	Rolling In Service	108,508	(38,823)	3.33%	3,613
Meter Installations	CWS - NC Uniform	Water	334.40	141235	Rolling In Service	81,231	(29,063)	3.33%	2,705
Hydrants	CWS - NC Uniform	Water	335.40	141236	Rolling In Service	71,888	(15,399)	2.50%	1,797
Backflow Prevention Devices	CWS - NC Uniform	Water	336.40	141237	Rolling In Service	7,846	(5,676)	10.00%	785
Stores Equipment	CWS - NC Uniform	Water	342.50	141305	Rolling In Service	3,871	(1,341)	3.33%	129
Lab Equipment	CWS - NC Uniform	Water	344.50	141306	Rolling In Service	4,686	(3,103)	10.00%	469
Tool Shop Equipment	CWS - NC Uniform	Water	343.50	141308	Rolling In Service	12,686	(6,257)	5.00%	634
Power Operated Equipment	CWS - NC Uniform	Water	345.50	141309	Rolling In Service	13,717	(7,177)	10.00%	1,372
Communications Equipment	CWS - NC Uniform	Water	346.50	141310	Rolling In Service	9,804	(5,129)	10.00%	980
Misc Equipment	CWS - NC Uniform	Water	347.50	141311	Rolling In Service	11,156	(2,891)	3.33%	372
Vehicles	CWS - NC Uniform	Water	341.50	141401	Rolling In Service	217,440	(217,440)	20.00%	43,488

Rate Base- Post TY Update

Natural Account	Natural Account Description	April-August	April-August	April-August	April-August
		CWSNC Uniform - Water	CWSNC Uniform - Sewer	BF-FH-TC - Water	BF-FH-TC - Sewer
141101	Land and Rights General	150,595.59	-	-	-
141201	Organization	521.29	-	-	-
141202	Franchises	-	-	-	-
141203	Struct and Improv General Plant	50,103.12	23,255.65	-	247.07
141204	Struct and Improv Service Supplies	24,010.89	-	12,751.46	-
141205	Struct and Improv Water Treat Plt	34,026.41	3,041,859.40	118.48	-
141206	Struct and Improv Trans Dist Plt	1,587.02	-	-	-
141207	Struct and Improv Collect Plant	-	4,001.49	-	-
141208	Struct and Improv Pump Plant	-	121,979.47	-	2,226.79
141209	Struct and Improv Treatment Plant	-	22,992.98	-	142.17
141211	Struct and Improv Reclaim Wtr Dist	-	-	-	-
141220	Struct and Improv Office	9,420.74	12,841.11	(153.47)	4,896.48
141221	Collecting Reservoirs	717,687.04	-	-	-
141223	Wells and Springs	24,871.42	-	3,080.03	-
141225	Supply Mains	65,241.36	-	2,990.35	-
141226	Power Generation Equipment	4,805.06	771.75	-	-
141227	Electric Pump Equip Src Pump	77,796.58	-	9,882.52	-
141228	Electric Pump Equip WTP	184,085.79	-	14,630.84	-
141229	Electric Pump Equip Trans Dist	890,004.19	-	-	-
141230	Water Treatment Equipment	62,592.87	-	5,925.89	(11,587.68)
141231	Dist Resv and Standpipes	46,784.70	(75.02)	19,510.08	(4.43)
141232	Trans and Distr Mains	334,893.88	(248.02)	7,922.70	(14.69)
141233	Service Lines	543,960.87	-	31,290.65	-
141234	Meters	36,746.37	-	8,874.49	-
141235	Meter Installations	39,194.53	-	6,643.19	-
141236	Hydrants	39,088.59	-	92,989.29	-
141237	Backflow Prevention Devices	16,034.45	-	-	-
141239	Power Gen Equip Pump Plt	-	-	-	44,210.70
141240	Power Gen Equip Treat Plt	-	5,100.14	-	-
141241	Sewer Force Main	-	601,749.48	-	-
141242	Sewer Gravity Main	-	949,078.69	-	983.12
141243	Manholes	-	44,389.03	-	3,268.64
141244	Special Collection Structures	-	-	-	-
141245	Service to Customers	-	69,240.61	-	66,387.43
141246	Flow Measure Devices	-	5,503.31	-	-
141248	Receiving Wells	-	22,160.33	-	-
141249	Pumping Equip Pump Plt	-	309,977.66	-	9,664.39
141250	Pumping Equip Reclaim WTP	-	1,781.87	-	17,502.10
141251	Pumping Equip Rcl Wtr Dist	-	3,104.37	-	-
141252	Treat/Disp Equip Lagoon	-	2,679.51	-	-
141253	Treat/Disp Equip Trt Plt	-	113,414.07	-	1,819.61
141254	Treat/Disp Equip Rclm Wtr	-	12,973.37	-	-
141255	Plant Sewers Treatment Plt	-	41,767.45	-	4,124.37
141256	Plant Sewers Reclaim Wtr	-	2,262.67	-	-
141257	Outfall Lines	-	11,576.17	-	36,793.52
141264	Reuse Transmission and Dist	-	35,336.44	-	-
141269	Other and Misc Equip WTP	3,185.02	-	-	-
141271	Other Tangible Plant	10,327.46	-	-	79,334.27
141272	Other Plant Collection	-	787.26	-	-
141273	Other Plant Pump	-	2,976.29	-	-
141274	Other Plant Treatment	-	110.68	-	-
141275	Other Plant Reclaim Water Trt	-	-	-	4,305.60
141299	Utility Plant Clearing	(0.00)	(0.00)	(0.00)	(0.00)
141303	Office Furniture	(102.88)	(797.59)	(55.24)	(75.69)
141305	Stores Equipment	89.48	1,153.25	(0.24)	(0.22)
141306	Lab Equipment	269.29	2,887.81	71.09	507.04
141308	Tool Shop Equipment	8,449.87	18,822.71	(2.49)	1,425.84
141309	Power Operated Equipment	11,109.19	19,239.73	1,999.47	688.23
141310	Communications Equipment	13,964.60	10,209.26	2,614.90	25,715.27
141311	Misc Equipment	14,504.00	29,617.20	138.52	35,208.53
141399	Building and Equipment Clearing	0.00	0.00	-	0.00
141401	Vehicles	276,320.94	164,854.68	(3,884.17)	(3,975.83)
141499	Vehicles Clearing	(0.00)	(0.00)	-	-
141501	Computer Hardware	(6.97)	(4.16)	(0.81)	(0.82)
141502	Desktop/Laptop Computers	40,731.37	24,300.57	5,614.10	5,746.59
141503	Mainframe Computers	(1,141.70)	(681.14)	(126.86)	(129.86)
141504	Mini Comp Wtr	6,267.09	3,738.99	955.26	977.80
141601	Computer Software	11,331.22	6,760.27	1,584.47	1,621.87
141602	Comp Systems	(31,673.35)	(18,896.51)	(3,637.95)	(3,723.80)

Rate Base- Post TY Update

Natural Account	Natural Account Description	April-August	April-August	April-August	April-August
		CWSNC Uniform - Water	CWSNC Uniform - Sewer	BF-FH-TC - Water	BF-FH-TC - Sewer
141603	Micro Systems	(580.81)	(346.52)	(65.00)	(66.54)
141699	Computer Clearing	0.00	0.00	0.00	0.00
141702	CWIP - Captive	131,585.31	148,619.38	9,651.68	44,066.82
141703	CWIP - Interest During Construction	16,618.57	(113,358.95)	(132.73)	9,577.79
141704	CWIP - Engineering	21,032.14	7,931.37	(65,163.12)	44,847.72
141705	CWIP - Labor/Installation	(107.50)	-	-	-
141706	CWIP - Equipment	1,516.67	-	-	-
141707	CWIP - Material	0.00	9,203.89	-	-
141710	CWIP - Site Work	-	-	-	-
141716	CWIP - Land/Lease	-	-	-	-
141718	CWIP - Permits	-	(21,368.20)	-	-
141720	CWIP - Pumps/Equipment	-	-	-	-
141727	CWIP - Tests/Drawdown	-	-	-	-
141732	CWIP - Transfer to Fixed Assets	(7,875.90)	(3,117.28)	(287.21)	(7,725.22)
141748	CWIP - Contractor/Labour	-	-	-	-
141761	CWIP - Construction	258,436.82	(1,043,201.96)	55,895.04	518,277.83
141762	CWIP - Other	(661.85)	81.76	-	-
141798	CWIP Clearing-Fixed Asset	6,394.07	37,756.19	2,166.45	200.00
141799	CWIP Clearing	0.00	0.00	0.00	(42,293.94)
141801	Fixed Assets - Accrued	-	-	-	-
141899	CIAC-Clearing	0.00	-	-	-
142201	Acc Dep - Organization	(5,045.44)	(9,203.10)	(1,050.68)	(152.95)
142202	Acc Dep - Franchises	(2,390.85)	(1,327.90)	(533.70)	(436.85)
142203	Acc Dep - Struct and Improv General Plant	(2,860.17)	(13,833.88)	(18.70)	(2,185.63)
142204	Acc Dep - Struct and Improv Service Supplies	(35,848.33)	-	(1,743.09)	-
142205	Acc Dep - Struct and Improv Water Treat Plt	6,171.51	(15,209.29)	(1,226.97)	-
142206	Acc Dep - Struct and Improv Trans Dist Plt	(2,097.78)	-	(3.85)	-
142207	Acc Dep - Struct and Improv Collect Plant	-	(883.79)	-	(2.10)
142208	Acc Dep - Struct and Improv Pump Plant	-	(92,323.19)	-	(16,979.73)
142209	Acc Dep - Struct and Improv Treatment Plant	-	(208,997.94)	-	(19,140.70)
142210	Acc Dep - Struct and Improv Reclaim WTP	-	(34.10)	-	-
142211	Acc Dep - Struct and Improv Reclaim Wtr Dist	-	(1,880.05)	-	(25.80)
142220	Acc Dep - Struct and Improv Office	(15,902.65)	(8,678.24)	(2,468.54)	(4,401.70)
142221	Acc Dep - Collecting Reservoirs	(4,918.91)	-	-	-
142223	Acc Dep - Wells and Springs	(119,213.37)	-	(1,520.63)	-
142224	Acc Dep - Infiltration Gallery	(470.70)	-	-	-
142225	Acc Dep - Supply Mains	7,118.79	-	(40.02)	-
142226	Acc Dep - Power Generation Equipment	(6,935.86)	(12,460.61)	-	-
142227	Acc Dep - Electric Pump Equip Src Pump	(91,871.57)	-	9,904.54	-
142228	Acc Dep - Electric Pump Equip WTP	(78,622.62)	-	(5,473.28)	-
142229	Acc Dep - Electric Pump Equip Trans Dist	(232,138.50)	-	(3,489.52)	-
142230	Acc Dep - Water Treatment Equipment	(34,701.65)	-	(1,550.95)	(9,691.21)
142231	Acc Dep - Dist Resv and Standpipes	(64,297.28)	(171.25)	(7,648.27)	(43.96)
142232	Acc Dep - Trans and Distr Mains	(86,088.73)	(575.90)	(5,106.50)	(145.93)
142233	Acc Dep - Service Lines	(18,666.55)	(7.80)	1,947.26	-
142234	Acc Dep - Meters	(85,643.75)	-	(2,666.25)	-
142235	Acc Dep - Meter Installations	(20,805.38)	-	(1,018.50)	-
142236	Acc Dep - Hydrants	(14,633.20)	-	(3,095.43)	-
142237	Acc Dep - Backflow Prevention Devices	298.92	-	(6.30)	-
142238	Acc Dep - Power Gen Equip Coll Plt	-	(4,484.30)	-	-
142239	Acc Dep - Power Gen Equip Pump Plt	-	(2,222.50)	-	(5,727.83)
142240	Acc Dep - Power Gen Equip Treat Plt	-	(12,967.68)	-	-
142241	Acc Dep - Sewer Force Main	-	14,656.89	-	(1,258.40)
142242	Acc Dep - Sewer Gravity Main	-	(71,145.48)	-	(22,214.62)
142243	Acc Dep - Manholes	-	(6,803.55)	-	(216.68)
142244	Acc Dep - Special Collection Structures	-	(58.60)	-	(6.45)
142245	Acc Dep - Service to Customers	-	(3,074.11)	-	8,785.24
142246	Acc Dep - Flow Measure Devices	-	(1,626.43)	-	(296.75)
142247	Acc Dep - Flow Measure Install	-	(18.45)	-	-
142248	Acc Dep - Receiving Wells	(1,472.85)	(1,942.89)	-	-
142249	Acc Dep - Pumping Equip Pump Plt	-	(185,287.84)	-	(19,912.15)
142250	Acc Dep - Pumping Equip Reclaim WTP	-	(2,073.22)	-	(2,067.24)
142251	Acc Dep - Pumping Equip Rcl Wtr Dist	-	(4,886.44)	-	-
142252	Acc Dep - Treat/Disp Equip Lagoon	-	(3,223.94)	-	(0.60)
142253	Acc Dep - Treat/Disp Equip Trt Plt	-	(149,007.85)	-	(25,901.49)
142254	Acc Dep - Treat/Disp Equip Rclm Wtr	-	16,271.72	-	-
142255	Acc Dep - Plant Sewers Treatment Plt	(247.40)	(176,726.76)	-	(3,930.93)
142256	Acc Dep - Plant Sewers Reclaim Wtr	-	331.50	-	-
142257	Acc Dep - Outfall Lines	-	(2,730.97)	-	3,808.33

Rate Base- Post TY Update

Natural Account	Natural Account Description	April-August	April-August	April-August	April-August
		CWSNC Uniform - Water	CWSNC Uniform - Sewer	BF-FH-TC - Water	BF-FH-TC - Sewer
142263	Acc Dep - Reuse Dist Reservoirs	-	(29.30)	-	(23.05)
142264	Acc Dep - Reuse Transmission and Dist	-	12,918.29	-	(20.75)
142268	Acc Dep - Other and Misc Equip Source Supply	(2.70)	-	-	-
142269	Acc Dep - Other and Misc Equip WTP	(251.09)	-	-	-
142271	Acc Dep - Other Tangible Plant	(477.72)	(153.75)	-	(1,487.51)
142272	Acc Dep - Other Plant Collection	-	(230.55)	-	2.35
142273	Acc Dep - Other Plant Pump	-	(4,936.71)	-	(35.85)
142274	Acc Dep - Other Plant Treatment	-	(3,542.33)	-	-
142275	Acc Dep - Other Plant Reclaim Water Trt	-	(6.75)	-	(117.51)
142276	Acc Dep - Other Plant Reclaim Water Dist	-	(4.80)	-	-
142278	Acc Dep - Plant Alloc	(5,772.50)	(14,637.65)	-	-
142303	Acc Dep - Office Furniture	(14,226.10)	(8,109.45)	(573.01)	(492.00)
142305	Acc Dep - Stores Equipment	(226.77)	(105.61)	(5.47)	(39.48)
142306	Acc Dep - Lab Equipment	(5,492.49)	(4,884.50)	(605.21)	(275.24)
142308	Acc Dep - Tool Shop Equipment	(22,556.58)	(11,229.69)	(2,143.84)	(433.36)
142309	Acc Dep - Power Operated Equipment	(14,272.66)	(2,466.04)	(518.61)	(2,247.17)
142310	Acc Dep - Communications Equipment	(7,606.72)	(5,430.59)	(3,330.25)	(2,036.55)
142311	Acc Dep - Misc Equipment	7,259.42	15,286.15	(7.09)	(661.26)
142401	Acc Dep - Vehicles	(62,993.43)	(36,102.67)	(2,551.16)	(2,774.48)
142501	Acc Dep - Computer Hardware	(57.51)	(32.14)	(7.77)	(7.95)
142502	Acc Dep - Desktop/Laptop Computers	(3,718.18)	(2,087.16)	(501.62)	(512.64)
142503	Acc Dep - Mainframe Computers	1,114.46	708.38	134.94	121.78
142504	Acc Dep - Mini Comp Wtr	(62,309.72)	(33,833.97)	(8,565.69)	(8,647.04)
142601	Acc Dep - Computer Software	(12,194.75)	(6,833.77)	(1,647.34)	(1,685.80)
142602	Acc Dep - Comp Systems	(12,666.09)	(20,526.17)	(2,028.33)	(2,410.60)
142603	Acc Dep - Micro Systems	567.81	359.52	68.96	62.58
142901	Acc Dep - Purchase Acquisition Adjustments	42,850.83	14,941.90	(4,864.13)	(12,595.50)
271008	CIAC - Structure/Improvement Treatment Plant	-	-	-	-
271036	CIAC - Tap Fee	(7,051.67)	25,522.00	(39,465.00)	-
271037	CIAC - Management Fee	(150.00)	-	-	-
271040	CIAC - Plant Mod Fee	(13,125.00)	-	-	-
271041	CIAC - Plant Meter Fee	(6,761.71)	-	(1,050.00)	-
271043	CIAC - Sewer Gravity Main	-	-	-	-
271044	CIAC - Manholes	-	-	-	-
272003	Acc Amort CIAC - Structure/Improvement Src Supply	529.75	-	-	-
272004	Acc Amort CIAC - Structure/Improvement WTP	442.40	-	-	-
272007	Acc Amort CIAC - Structure/Improvement Pump Plant L	-	6,686.35	-	-
272008	Acc Amort CIAC - Structure/Improvement Treat Plant	-	4,325.35	-	-
272011	Acc Amort CIAC - Structure/Improvement Generator Plai	-	133,472.45	-	46,056.50
272017	Acc Amort CIAC - Wells and Springs	8,983.85	-	-	-
272019	Acc Amort CIAC - Electric Pump Equipment Src Pump	279.40	-	-	-
272020	Acc Amort CIAC - Electric Pump Equipment Water Treatr	894.90	-	-	-
272021	Acc Amort CIAC - Electric Pump Equipment Trans Dist	2,067.15	-	-	-
272022	Acc Amort CIAC - Water Treatment Equipment	490.55	-	-	-
272023	Acc Amort CIAC - Dist Resv and S	1,949.80	-	-	-
272024	Acc Amort CIAC - Trans and Distr Mains	25,811.15	-	216.00	-
272025	Acc Amort CIAC - Service Lines	-	-	202.05	-
272026	Acc Amort CIAC - Meters	318.90	-	-	-
272028	Acc Amort CIAC - Hydrants	3,176.79	-	584.86	-
272029	Acc Amort CIAC - Backflow Prevent D	166.65	-	-	-
272034	Acc Amort CIAC - Misc Equipment	1,694.95	-	-	-
272035	Acc Amort CIAC - Other Tangible Plant	187,243.95	(3.90)	11,838.15	-
272036	Acc Amort CIAC - Tap Fee	46,002.89	36,415.04	3,355.95	4,135.14
272037	Acc Amort CIAC - Management Fee	234.58	147.05	-	-
272039	Acc Amort CIAC - Res Cap Fee	403.80	-	-	7,320.90
272040	Acc Amort CIAC - Plant Mod Fee	9,305.01	60,376.57	894.80	2,431.65
272041	Acc Amort CIAC - Plant Meter Fee	3,028.90	2.75	139.52	-
272042	Acc Amort CIAC - Sewer Force Main	-	1,145.15	-	-
272043	Acc Amort CIAC - Sewer Gravity Main	-	16,044.60	-	498.45
272044	Acc Amort CIAC - Manholes	-	1,559.15	-	-
272046	Acc Amort CIAC - Service to Customers	-	1,935.70	-	-
272054	Acc Amort CIAC - Treatment/Disp Equipment Treatment	-	(370.60)	-	-

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

W1-10

Schedule 2

Updated 09/19/22

Supplement to Schedule A-1a, A-1b, A-2a, A-2b

Capital Investment Plan

Purpose:

To include estimated capital investment spend, retirements, accumulated depreciation, and annualized depreciation expense through the base case cutoff period and Water Sewer Investment Plan period.

Method:

Add plant in service and retirements on a monthly basis through the base case cutoff and Water Sewer Investment Plan period. Annualize expected depreciation expense and calculate accumulated depreciation through the periods based on a thirteen month average rate base.

Update:

Updated capital investment plan with most up to date information including expected in-service dates, estimates at completion, and retirement amounts.

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

W1-10

Schedule 12

Updated 09/19/22

Supplement to Schedule B-15a and b

Page 1 of 2

Rate Case Expense

Line No.	Item	Actual to Date [A]	Estimate [B]	Amount Requested [C]	CWSNC Uniform - Water [D]	CWSNC Uniform - Sewer [E]	BF-FH-TC - Water [F]	BF-FH-TC - Sewer [G]
1	Authorized Balance - W-354 Sub 384 Final Order (04/08/22)	\$ 1,194,048	\$ -	\$ 1,194,048				
2	Amortization period in years			\$ 5				
3	Rate Case Expense Amortization from 04/08/22-03/31/23			\$ 238,810				
4	Unamortized Balance as of 03/31/23	\$ 955,238		\$ 955,238				
5	Estimated Rate Case Expenses - W-354, Sub 400	\$ 206,454	\$ 543,546	\$ 750,000				
6	Total Unamortized Rate Case Expense Balance as of 03/31/23			\$ 1,705,238				
7	Requested Amortization period in years			3				
8	Annual Rate Case Expense Amortization - Sub 400			\$ 568,413				
9	Base Case Amortization Expense			\$ 568,413	\$ 308,964	\$ 184,330	\$ 37,121	\$ 37,997
10	WSIP Period 1 Amortization Expense (04/01/23-03/31/24)			\$ 568,413	\$ 308,964	\$ 184,330	\$ 37,121	\$ 37,997
11	WSIP Period 2 Amortization Expense (04/01/24-03/31/25)			\$ 568,413	\$ 308,964	\$ 184,330	\$ 37,121	\$ 37,997
12	WSIP Period 3 Amortization Expense (04/01/25-03/31/26)			\$ 568,413	\$ 308,964	\$ 184,330	\$ 37,121	\$ 37,997
13	Unamortized Balance at end of WSIP Period			\$ -	\$ -	\$ -	\$ -	\$ -

Purpose:

To amortize previously approved and estimated rate case expenses over the three year WSIP period.

Method:

Identified authorized deferred rate case expense from Sub 384.

The 5 year amortization from Sub 384 was carried from 04/08/22 to 3/31/2023. This anticipates rates effective in the current case of 4/1/2023. When combined with the estimated rate case expenses in this case (see Column [B]), the totals on lines 6 and 12 for the Rate Divisions are divided by a new 5 year term to produce an updated annual amortization expense. This amortization expense replaces the book amortization expense of Schedules B-15a and b.

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

W1-10
Schedule 12
Updated 09/19/22

Rate Case Expense - Current Filing

Page 2 of 2

<u>Line</u> <u>No.</u>	<u>Description</u>	<u>09/19/22</u> <u>Actuals</u>	<u>Estimates to</u> <u>Completion</u>	
1	Attorney Fees:	Total Amount	Total Amount	Total Amount
2	Legal Fees - Sanford	56,067.44	143,932.56	200,000.00
3	Legal Fees - Ice Miller	71,191.65	128,808.35	200,000.00
4	Total Attorney Fees	127,259.09	272,740.91	400,000.00
5				
6	Consulting Fees:			
7	ROE Consultant	22,906.25	37,093.75	60,000.00
8	CIP Consultant		60,000.00	60,000.00
9	Total Consulting	22,906.25	97,093.75	120,000.00
10				
11	Administrative:	Total Amount	Total Amount	Total Amount
12	Customer Notices/ Miscellaneous Costs	65.65	59,934.35	60,000.00
13				
14	Travel:	Total Amount	Total Amount	Total Amount
15	Airfare		6,000.00	6,000.00
16	Hotel/Meals		2,000.00	2,000.00
17	Rental Car		2,000.00	2,000.00
18	Total Travel	-	10,000.00	10,000.00
19				
20	Capitalize Time:	Total Amount	Total Amount	Total Amount
21	All Employees	56,223.43	103,776.58	160,000.00
22				
23	Total Estimated Rate Case Expense for Sub 400	206,454.42	543,545.59	750,000.00

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

W1-10

Schedule 13a

Page 1 of 2

Supplement to Schedules A-15a and b
Deferred Charges - Maintenance

Line No	Item	CWSNC Uniform -Water	CWSNC Uniform - Sewer	BF/FH/TC - Water	BF/FH/TC - Sewer
Excluded in W-354 Sub 384:					
1	Gross Balance (W-354, Sub 384)		3,424,839.08		
2	Accumulated Amortization @ 3/31/2023		(3,424,839.08)		
3	Unamortized Balance @ 3/31/2023 - (L1 + L2)		-		
Balances as of 03/31/23 - Base Case / WSIP Period 1					
4	Deferred elevated storage tank painting	781,596.67		67,175.28	
5	Deferred hydro storage tank painting	586,086.06		36,500.00	
6	Deferred hydro storage tank inspection	981,962.90		62,089.37	
7	WWTP		1,065,076.49		110,491.69
8	Accumulated Amortization @ 3/31/2023	(1,990,940.75)	(542,032.38)	(125,295.49)	(110,491.69)
9	Unamortized Balance @ 3/31/2023 - (L4 to L8)	358,704.88	523,044.11	40,469.16	-
10	Pro-Forma - Account 181002 - Base Case	2,349,645.63	1,065,076.49	165,764.65	110,491.69
11	Pro-Forma - Account 182002 - Base Case	(1,990,940.75)	(542,032.38)	(125,295.49)	(110,491.69)
12	Net Rate Base	358,704.88	523,044.11	40,469.16	-
Balances as of 03/31/24 - Ending Balance WSIP Period 1					
13	Deferred elevated storage tank painting	1,136,696.67		67,175.28	
14	Deferred hydro storage tank painting	605,166.06		75,190.00	
15	Deferred hydro storage tank inspection	981,962.90		62,089.37	
16	WWTP		1,111,295.03		212,887.69
17	Accumulated Amortization @ 3/31/2024	(2,177,124.57)	(664,496.54)	(147,244.46)	(130,970.89)
18	Unamortized Balance @ 3/31/2024 - (L13 to L17)	546,701.06	446,798.49	57,210.19	81,916.80
19	Pro-Forma - Account 181002 - WSIP 1 - Average	2,536,735.63	1,088,185.76	185,109.65	161,689.69
20	Pro-Forma - Account 182002 - WSIP 1 - Average	(2,084,032.66)	(603,264.46)	(136,269.98)	(120,731.29)
21	Net Rate Base	452,702.97	484,921.30	48,839.68	40,958.40
Balances as of 03/31/25 - Ending Balance WSIP Period 2					
22	Deferred elevated storage tank painting	1,236,696.67		67,175.28	
23	Deferred hydro storage tank painting	624,786.06		75,190.00	
24	Deferred hydro storage tank inspection	1,104,440.76		62,089.37	
25	WWTP		1,111,295.03		212,887.69
26	Accumulated Amortization @ 3/31/2025	(2,352,991.55)	(734,473.45)	(165,043.92)	(151,450.09)
27	Unamortized Balance @ 3/31/2025 - (L22 to L26)	612,931.94	376,821.58	39,410.73	61,437.60
28	Pro-Forma - Account 181002 - WSIP 2 - Average	2,844,874.56	1,111,295.03	204,454.65	212,887.69
29	Pro-Forma - Account 182002 - WSIP 2 - Average	(2,265,058.06)	(699,485.00)	(156,144.19)	(141,210.49)
30	Net Rate Base	579,816.50	411,810.04	48,310.46	71,677.20
Balances as of 03/31/26 - Ending Balance WSIP Period 3					
31	Deferred elevated storage tank painting	1,336,696.67		67,175.28	
32	Deferred hydro storage tank painting	644,946.06		75,190.00	
33	Deferred hydro storage tank inspection	1,104,440.76		62,089.37	
34	WWTP		1,111,295.03		212,887.69
35	Accumulated Amortization @ 3/31/2026	(2,515,962.61)	(786,954.60)	(179,879.45)	(171,929.29)
36	Unamortized Balance @ 3/31/2026 - (L31 to L35)	570,120.88	324,340.43	24,575.20	40,958.40
37	Pro-Forma - Account 181002 - WSIP 3 - Average	3,026,003.49	1,111,295.03	204,454.65	212,887.69
38	Pro-Forma - Account 182002 - WSIP 3 - Average	(2,434,477.08)	(760,714.03)	(172,461.69)	(161,689.69)
39	Net Rate Base	591,526.41	350,581.01	31,992.97	51,198.00

Purpose:

To determine the rate base component associated with deferred maintenance activity for the base case and through the WSIP periods.

Method:

Removed book balances as of Test Year end for Deferred Charges and Accumulated Amortization deferred charges accounts.
Updated the amortization schedules used in setting of rates in Sub 384 calculating unamortized balances for open deferrals through 3/31/2023.
This anticipates rates effective from the current proceeding of 4/1/2023. Further calculated out deferred maintenance through the WSIP period based on operational expectations, using beginning + ending balance for average rate base in the WSIP periods.

Update: Relabeled to Schedule 13a to clearly delineate between the deferred maintenance adjustments.

Deferred Maintenance Expense

Line No	Item	Base Case Annual Amortization	WSIP Year 1 - Annual Amortization	WSIP Year 2 - Annual Amortization	WSIP Year 3 - Annual Amortization
Deferred maintenance - CWSNC Uniform Water					
1	Elevated Storage	103,166.30	64,648.86	71,189.22	81,189.22
2	Tank Painting	29,263.80	33,079.80	26,479.23	28,406.31
3	Tank Inspection	88,455.14	88,455.14	78,198.54	53,375.57
4	Total pro-forma deferred maintenance - Uniform Water (Sum of L1 thru L4)	220,885.24	186,183.80	175,866.99	162,971.10
Deferred Maintenance Expense - CWSNC Uniform Sewer					
Nags Head WWTP Deferral:					
5	Sub 364 Allowed Nags Head WWTP Deferral Amortization	115,727.00	115,727.00	115,727.00	9,643.92
Connetsee Falls WWTP Deferral:					
6	Sub 364 Allowed Connetsee Falls WWTP Deferral Amortization	104,029.00	104,029.00	104,029.00	8,669.08
9	Belvedere pump and haul	-	-	-	-
10	WWTP	43,237.45	52,481.16	52,481.16	52,481.16
11	Total pro-forma deferred maintenance - Uniform Sewer	262,993.45	272,237.16	272,237.16	70,794.16
Deferred maintenance - BF/FH/TC Water					
12	Elevated Storage	6,717.53	6,717.53	6,717.53	6,717.53
13	Tank Painting	-	7,738.00	7,738.00	7,738.00
14	Tank Inspection	7,493.44	7,493.44	3,343.93	380.00
15	Total pro-forma deferred maintenance - BFFHTC Water	14,210.97	21,948.97	17,799.46	14,835.53
Deferred maintenance - BF/FH/TC Sewer					
16	WWTP	22,098.34	20,479.20	20,479.20	20,479.20
17	Total pro-forma deferred maintenance - BFFH Sewer	22,098.34	20,479.20	20,479.20	20,479.20
18	Total (L4 + L11 + L15 + L17)	520,188.00	500,849.13	486,382.81	269,079.99

Purpose:

To adjust Deferred Maintenance Expense for pro-forma adjustments to deferred maintenance rate base and calculate annual expense through the WSIP periods.

Method:

Using approved amortization schedules from Sub 384, carried amortization activity through 3/31/2023, anticipating new rates effective 4/1/2023. Pro-forma deferred maintenance additions were included per estimated costs from operations. Deferred maintenance items from Sub 384 were annualized based on their respective March 2023 amortization expense. Estimate deferred maintenance activity and annual amortization through the WSIP periods.

Update: Relabeled to Schedule 13b to clearly delineate between the deferred maintenance adjustments.

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

W1-10

Schedule 13c - NEW
Updated 09/19/2022

Supplement to Schedule B-7a and b

Maintenance Testing

Line No .	Item	CWSNC Uniform Allocation - Water	CWSNC Uniform Allocation - Sewer	BF/FH/TC - Water	BF/FH/TC - Sewer
1	<u>515001/515002/515003 - Test Water / Sewer</u>				
2	Per Books Direct Amount	142,290.60	282,486.72	28,851.38	1,374.82
3	Pro-Forma Amount	169,848.84	291,701.43	9,578.89	23,549.80
4	Pro-Forma Adjustment	27,558.24	9,214.71	(19,272.49)	22,174.98

Purpose:

To adjust Test Year Testing Expense to coincide with sampling schedules, as provided by CWSNC Water Quality Department.

Method:

The CWSNC Water Quality Department prepares and tracks schedules of sampling and testing requirements by system, including frequency and costs. All costs are annualized to generate a levelized accrued cost - for example, a test required every 5 years will have 1/5th the most recent cost included in the pro-forma schedule. The most recent actual cost for each test/sample is what is being annualized and levelized.

Only compared to Direct testing expenses, allocated testing expenses represent PFAS and PFOA testing booked at the cost center level.

Update:

This is a new adjustment to better account for current sampling schedules.

Carolina Water Service, Inc. of North Carolina
W-354, Sub 400
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

W1-10

Schedule 18

Updated 9/19/22

Supplement to Schedule B-6a

Purchased Water and Purchase Sewer Treatment Expense

					Test Year Expenses Prior to Rate Change			Pro-Forma Adjustment		
			Date of Rate Change	Old Volume Rate/TG	New Volume Rate/TG	CWSNC Uniform - Water	CWSNC Uniform - Sewer	Percent Increase	CWSNC Uniform - Water	CWSNC Uniform - Sewer
Vendor		Subdivision(s)								
Purchased Water Expense:										
	CITY OF ASHEVILLE	Bent Creek	7/1/2022	3.78	4.04	37,671.33		6.88%	2,591.15	
	CITY OF CHARLOTTE	Riverpointe	7/1/2021	7.07	4.12	25,949.05		-41.78%	(10,840.72)	
	CITY OF CONCORD	Zemosa Acres	7/1/2021	5.52	5.52	21,793.01		0.00%	0.00	
	CITY OF GASTONIA	Kings Grant - Charlotte	7/1/2022	6.67	7.00	33,292.93		4.95%	1,647.18	
	CITY OF SANFORD NC	Carolina Trace	7/1/2019	2.21	2.21	-		0.00%	0.00	
	HENDERSONVILLE WATER & SEWER DEPARTMENT	High Vista	7/1/2022							
				4.72	5.27	89,810.81		11.65%	10,465.24	
	JOHNSTON CNTY DEPT PUBLIC UTILITIES	White Oak Plantation, Winston Plantation,	9/1/2022	3.02	3.20	100,577.85		5.96%	5,994.71	
	LANCASTER CTY WTR & SWR DISTRICT	Winston Point, Willowbrook Danby	7/1/2022	4.24	4.33	148,761.15		2.12%	3,157.67	
	MONTGOMERY COUNTY WATER SYSTEM	Carolina Forest, Woodrun	7/1/2018							
				3.19	3.19	-		0.00%	0.00	
	PUBLIC WORKS COMMISSION	Tanglewood South, Eastgate	7/1/2022	5.55	5.46	70,957.86		-1.62%	(1,150.67)	
	TOWN OF FRANKLIN	Riverbend Estates	7/1/2022	8.10	8.40	64,490.06		3.70%	2,388.52	
	TOWN OF MOORESVILLE	The Point	7/1/2022	3.72	3.72	342,764.50		0.00%	0.00	
	TOWN OF SOUTHERN PINES	Whispering Pines	7/1/2022	3.52	3.70	374,545.24		5.11%	19,152.88	
	WINSTON-SALEM/FORSYTH CTY	Yorktown	7/1/2021	5.79	5.79	6,427.88		0.00%	0.00	
						1,317,041.67			33,405.96	
Purchased Sewer Treatment Expense:										
	CITY OF GASTONIA	Kings Grant - Charlotte	7/1/2022	4.39	4.61		36,008.10	5.01%		1,804.51
	CLAY COUNTY WATER AND SEWER DISTRICT	Ridges at Mountain Harbour	9/5/2019	1,864.43	1,864.43		-	0.00%		0.00
	JOHNSTON CNTY DEPT PUBLIC UTILITIES	White Oak Plantation / Winston Pt.	9/1/2022							
				6.45	6.77		186,115.09	4.96%		9,233.62
	METROPOLITAN SEWAGE DISTRICT	Mt. Carmel	7/1/2022	6.51	6.71		162,354.52	3.07%		4,987.85
	TOWN OF DALLAS	College Park	7/1/2022	7.77	7.77		80,970.75	0.00%		0.00
	TOWN OF LAKE LURE	Fairfield Mountain / Apple Valley	7/1/2021	43,431.00	43,431.00		86,837.00	0.00%		0.00
							552,285.46			16,025.97

Purpose:

To adjust Test Year actual purchased services expenses for rate changes from vendors occurring after the start of the Test Year (4/1/2021). This allows for pro-forma adjustments to reflect the annualized costs for Purchased Water/Sewer Treatment Expense for CWSNC in this rate case.

Method:

The Company reviewed bills from and corresponded with its vendors to identify where rates changed since 4/1/2021, or who had issued notice that their rates will change in the near future.

CWSNC identified invoices paid during the Test Year before the effective date of the rate change and increased those bill amounts by the effective rate increase for the vendor.

The Company compared invoices to the vendor website rate schedule or a copy of prior rates effective to identify the percent of rate change. Johnston County issued a notice that their rates would change as of 09/01/2021. All other rate increases noted are identified from vendor invoices or the provider's rate schedules per its website.

Update:

Updated purchased water and purchased sewer treatment rates based on the most recent rate changes from applicable vendors.

Carolina Water Service, Inc. of North Carolina
W-354, Sub 400
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

W1-10

Schedule 21a
updated 09/19/2022

Supplement to Schedule B-13a and b, & B-25a and b

Page 1 of 1

Salary & Wages, Payroll Taxes

Line No .	Item	Amount to Be Allocated	Allocation to NC Regulated COs	CWSNC Uniform Allocation - Water	CWSNC Uniform Allocation - Sewer	BF/FH/TC Allocation - Water	BF/FH/TC Allocation - Sewer
	<u>East Region (NC, SC, 2.9% FL)</u>	<u>[A]</u>	<u>[B]</u>	<u>[C]</u>	<u>[D]</u>	<u>[E]</u>	<u>[F]</u>
1	Pro-Forma Salaries & Wages	518,560.01	311,611.57	169,378.42	101,052.15	20,350.36	20,830.64
2	FICA	21,068.10	12,660.18	6,881.52	4,105.56	826.80	846.31
3	Federal Unemployment Tax	84.00	50.48	27.44	16.37	3.30	3.37
4	State Unemployment Tax	528.34	317.49	172.57	102.96	20.73	21.22
	Total	540,240.45	324,639.71	176,459.95	105,277.03	21,201.19	21,701.55
	<u>Atlantic Region (NC & SC)</u>						
5	Pro-Forma Salaries & Wages	527,958.25	332,284.28	180,615.20	107,756.08	21,700.43	22,212.57
6	FICA	38,999.70	24,545.48	13,341.85	7,959.82	1,602.99	1,640.82
7	Federal Unemployment Tax	210.00	132.17	71.84	42.86	8.63	8.84
8	State Unemployment Tax	1,221.92	769.05	418.02	249.39	50.22	51.41
	Total	568,389.87	357,730.98	194,446.91	116,008.16	23,362.27	23,913.63
	<u>NC Operations (Direct)</u>						
9	Pro-Forma Salaries & Wages	6,622,933.51	6,622,933.51	3,599,936.94	2,147,743.38	432,522.69	442,730.50
10	FICA	506,654.41	506,654.41	275,395.18	164,302.37	33,087.99	33,868.88
11	Federal Unemployment Tax	3,738.00	3,738.00	2,031.81	1,212.19	244.12	249.88
12	State Unemployment Tax	11,158.06	11,158.06	6,065.03	3,618.43	728.70	745.90
	Total	7,144,483.99	7,144,483.99	3,883,428.96	2,316,876.38	466,583.49	477,595.15

Notes:

Column [A] - Amount to be Allocated to North Carolina Regulated Companies

Column [B] - Amount of Column [A] allocated to North Carolina

Column [C] - Column [B] * 54.36%

Column [D] - Column [B] * 32.43%

Column [E] - Column [B] * 6.53%

Column [F] - Column [B] * 6.68%

Purpose:

To calculate pro-forma salaries and wages, as well as related payroll taxes, and deferred compensation.

Method:

This adjustment annualizes current pay rates as of May 15 2022 pay period. Adjustment also includes vacancies expected to be filled during the rate case at estimated pay levels. Please see the Direct Testimony of Phil Drennan for a detailed explanation of the method used to calculate these adjustments.

Carolina Water Service, Inc. of North Carolina
W-354, Sub 400
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

W1-10

NEW - Schedule 21b
updated 09/19/2022

Supplement to Schedule B-16a and b

Page 1 of 1

Benefits

Line No.	Account Number	Item	Amount to Be Allocated	Allocation to NC Regulated COs	CWSNC Uniform Allocation - Water	CWSNC Uniform Allocation - Sewer	BE/EH/TC Allocation - Water	BE/EH/TC Allocation - Sewer
		<u>East Region (NC, SC, 2.9% FL)</u>	[A]	[B]	[C]	[D]	[E]	[F]
1	531001	401K Profit Sharing	13,445.73	8,079.77	4,391.81	2,620.18	527.66	540.12
2	531002	401K Match	17,927.64	10,773.03	5,855.75	3,493.57	703.55	720.16
3	532001	Health Admin and Stop Loss	-	-	-	-	-	-
4	532002	Dental	-	-	-	-	-	-
5	532005	Employee Insurance Deductions	-	-	-	-	-	-
6	532006	Health Insurance Claims	-	-	-	-	-	-
7	532012	Term Life Insurance	2,736.24	1,644.25	893.74	533.21	107.38	109.92
8	532013	Term Life Insurance Opt	-	-	-	-	-	-
9	532900	Other Employee Benefits	-	-	-	-	-	-
		Total	34,109.61	20,497.05	11,141.30	6,646.96	1,338.60	1,370.19
		<u>Atlantic Region (NC & SC)</u>						
10	531001	401K Profit Sharing	15,721.36	9,894.65	5,378.30	3,208.72	646.19	661.44
11	531002	401K Match	19,921.82	12,538.31	6,815.28	4,066.04	818.84	838.16
12	532001	Health Admin and Stop Loss	-	-	-	-	-	-
13	532002	Dental	2,953.20	1,858.67	1,010.29	602.75	121.38	124.25
14	532005	Employee Insurance Deductions	-	-	-	-	-	-
15	532006	Health Insurance Claims	72,964.32	45,922.00	24,961.19	14,891.99	2,999.02	3,069.80
16	532012	Term Life Insurance	2,735.88	1,721.90	935.95	558.39	112.45	115.11
17	532013	Term Life Insurance Opt	-	-	-	-	-	-
18	532900	Other Employee Benefits	751.92	473.24	257.23	153.47	30.91	31.64
		Total	115,048.50	72,408.77	39,358.24	23,481.36	4,728.79	4,840.39
		<u>NC Operations (Direct)</u>						
19	531001	401K Profit Sharing	167,367.48	167,367.48	90,973.64	54,275.41	10,930.24	11,188.20
20	531002	401K Match	157,803.55	157,803.55	85,775.11	51,173.93	10,305.65	10,548.87
21	532001	Health Admin and Stop Loss	-	-	-	-	-	-
22	532002	Dental	43,744.16	43,744.16	23,777.41	14,185.74	2,856.79	2,924.21
23	532005	Employee Insurance Deductions	-	-	-	-	-	-
24	532006	Health Insurance Claims	1,202,215.26	1,202,215.26	653,471.63	389,864.98	78,512.85	80,365.80
25	532012	Term Life Insurance	50,553.32	50,553.32	27,478.57	16,393.88	3,301.48	3,379.39
26	532013	Term Life Insurance Opt	-	-	-	-	-	-
27	532900	Other Employee Benefits	11,906.00	11,906.00	6,471.58	3,860.98	777.54	795.89
		Total	1,633,589.77	1,633,589.77	887,947.94	529,754.92	106,684.54	109,202.37

Notes:

Column [A] - Amount to be Allocated to North Carolina Regulated Companies

Column [B] - Amount of Column [A] allocated to North Carolina

Column [C] - Column [B] * 54.36%

Column [D] - Column [B] * 32.43%

Column [E] - Column [B] * 6.53%

Column [F] - Column [B] * 6.68%

Purpose:

To calculate pro-forma benefits costs to align with current salaries and benefits enrollments.

Method:

This adjustment annualizes current benefits as of the most recent discovery request in Sub 400.

Update:

This is a new adjustment necessary to reflect current benefits expenses.

Carolina Water Service, Inc. of North Carolina
W-354, Sub 400
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

W1-10

Schedule 21b
updated 09/19/2022

Supplement to Schedule B-16a and b

Page 1 of 1

Benefits

Line No.	Account Number	Item	Amount to Be Allocated	Allocation to NC Regulated COs	CWSNC Uniform Allocation - Water	CWSNC Uniform Allocation - Sewer	BE/FH/TC Allocation - Water	BE/FH/TC Allocation - Sewer
			[A]	[B]	[C]	[D]	[E]	[F]
East Region (NC, SC, 2.9% FL)								
1	531001	401K Profit Sharing	13,445.73	8,079.77	4,391.81	2,620.18	527.66	540.12
2	531002	401K Match	17,927.64	10,773.03	5,855.75	3,493.57	703.55	720.16
3	532001	Health Admin and Stop Loss	-	-	-	-	-	-
4	532002	Dental	-	-	-	-	-	-
5	532005	Employee Insurance Deductions	-	-	-	-	-	-
6	532006	Health Insurance Claims	-	-	-	-	-	-
7	532012	Term Life Insurance	2,736.24	1,644.25	893.74	533.21	107.38	109.92
8	532013	Term Life Insurance Opt	-	-	-	-	-	-
9	532900	Other Employee Benefits	-	-	-	-	-	-
		Total	34,109.61	20,497.05	11,141.30	6,646.96	1,338.60	1,370.19
Atlantic Region (NC & SC)								
10	531001	401K Profit Sharing	15,721.36	9,894.65	5,378.30	3,208.72	646.19	661.44
11	531002	401K Match	19,921.82	12,538.31	6,815.28	4,066.04	818.84	838.16
12	532001	Health Admin and Stop Loss	-	-	-	-	-	-
13	532002	Dental	2,953.20	1,858.67	1,010.29	602.75	121.38	124.25
14	532005	Employee Insurance Deductions	-	-	-	-	-	-
15	532006	Health Insurance Claims	72,964.32	45,922.00	24,961.19	14,891.99	2,999.02	3,069.80
16	532012	Term Life Insurance	2,735.88	1,721.90	935.95	558.39	112.45	115.11
17	532013	Term Life Insurance Opt	-	-	-	-	-	-
18	532900	Other Employee Benefits	751.92	473.24	257.23	153.47	30.91	31.64
		Total	115,048.50	72,408.77	39,358.24	23,481.36	4,728.79	4,840.39
NC Operations (Direct)								
19	531001	401K Profit Sharing	167,367.48	167,367.48	90,973.64	54,275.41	10,930.24	11,188.20
20	531002	401K Match	157,803.55	157,803.55	85,775.11	51,173.93	10,305.65	10,548.87
21	532001	Health Admin and Stop Loss	-	-	-	-	-	-
22	532002	Dental	43,744.16	43,744.16	23,777.41	14,185.74	2,856.79	2,924.21
23	532005	Employee Insurance Deductions	-	-	-	-	-	-
24	532006	Health Insurance Claims	1,202,215.26	1,202,215.26	653,471.63	389,864.98	78,512.85	80,365.80
25	532012	Term Life Insurance	50,553.32	50,553.32	27,478.57	16,393.88	3,301.48	3,379.39
26	532013	Term Life Insurance Opt	-	-	-	-	-	-
27	532900	Other Employee Benefits	11,906.00	11,906.00	6,471.58	3,860.98	777.54	795.89
		Total	1,633,589.77	1,633,589.77	887,947.94	529,754.92	106,684.54	109,202.37

Notes:

Column [A] - Amount to be Allocated to North Carolina Regulated Companies

Column [B] - Amount of Column [A] allocated to North Carolina

Column [C] - Column [B] * 54.36%

Column [D] - Column [B] * 32.43%

Column [E] - Column [B] * 6.53%

Column [F] - Column [B] * 6.68%

Purpose:

To calculate pro-forma benefits costs to align with current salaries and benefits enrollments.

Method:

This adjustment annualizes current benefits as of the most recent discovery request in Sub 400.

Carolina Water Service, Inc. of North Carolina
W-354, Sub 400
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

W-10

Schedule 25
Update 09/19/2022

Page 1 of 1

Supplement to Schedule B-18a and b, and B-16a and b (532009 - Workers Compensation Insurance (WBC))

Pro-Forma Insurance Expense

2021 -2022 Premiums & Allocations										
DESCRIPTION	Policy Number	Underwriter	Period Covered	Type	Current Premium Amount (Annual)	Allocation Methodology/Basis	Total Allocation Basis	North Carolina Portion of Allocation Basis	Allocation %	Amount Allocated for Current Coverage Period
					[A]	[B]	[C]	[D]	[E]	[F]
Commercial Auto	BAP 0944700-02	Zurich North America	10/01/21-	Auto	675,395	Vehicle Count	521	100	19.19%	129,634
Workers Comp	WC 0943642-02	Zurich North America	10/01/21-	Workers' Comp	603,626	Salaries & Wages	\$ 49,687,037	\$ 5,709,828	11.49%	69,366
USA: Property Insurance, Boiler & Machinery	753 5272, 753 5272	AIG, AXA XL	10/01/21-	Property	2,556,325	Property Values	\$ 1,072,146,581	\$ 216,513,230	20.19%	516,234
USA: Commercial General Liability & Umbrella Liability	02-LX-086477605-12, 5582333, 0309-	Granite State, National Union,	10/01/21-		1,742,013	Revenues	\$ 206,195,273	\$ 39,725,623	19.27%	335,617
D&O Commercial Package - D&O, Excess D&O, EPL, Fiduciary and Crime - CONSOLIDATED	8694, MKLV1EFX100589, MP21-0064 8262-5070, 8262-5476, 8262-5476, 01-839-75-16	AWAC, Markel, SSRU Chubb, Zurich, Berkley, AIG	11/01/22 11/01/21-04/30/22-	Commercial & Umbrella D&O, Excess D&O, EPL, Fiduciary and Crime	287,125	Revenues	\$ 206,195,273	\$ 39,725,623	19.27%	55,318
Pollution Liability Ins 2022-2024 - 2 year policy @\$424979.09	PRL4279250	Argo - Colony Insurance Company	04/30/24	Other	212,490	Property Values	\$ 1,072,146,581	\$ 216,513,230	20.19%	42,911
Commercial Cyber Liability	FN2106132	Beazley	11/01/21-	Other	124,290	Revenues	\$ 206,195,273	\$ 39,725,623	19.27%	23,946
Brokerage Fee		Marsh Canada Limited	11/01/21-	Other	488,797	Revenues	\$ 206,195,273	\$ 39,725,623	19.27%	94,172
Deductibles					618,542	ERCs	302,669	56,997	18.83%	116,481
					7,308,602					1,383,677.85

Allocation to North Carolina Rate Groups										
DESCRIPTION	Policy Number	Underwriter	Period Covered	Type	CWSNC Uniform BF-FH-TC					
					Water	Sewer	Water	Sewer		
					[G]	[H]	[I]	[J]		
Commercial Auto	BAP 0944700-02	Zurich North America	10/01/21-	Auto	70,463.54	42,038.96	8,466.00	8,665.81		
Workers Comp	WC 0943642-02	Zurich North America	10/01/21-	Workers' Comp	37,704.43	22,494.68	4,530.09	4,637.00		
USA: Property Insurance, Boiler & Machinery	753 5272, 753 5272	AIG, AXA XL	10/01/21-	Property	280,602.05	167,408.82	33,713.58	34,509.24		
USA: Commercial General Liability & Umbrella Liability	02-LX-086477605-12, 5582333, 0309-	Granite State, National Union,	10/01/21-		182,426.52	108,836.72	21,918.05	22,435.33		
D&O Commercial Package - D&O, Excess D&O, EPL, Fiduciary and Crime - CONSOLIDATED	8694, MKLV1EFX100589, MP21-0064 8262-5070, 8262-5476, 8262-5476, 01-839-75-16	AWAC, Markel, SSRU Chubb, Zurich, Berkley, AIG	11/01/21-04/30/22-	Commercial & Umbrella D&O, Excess D&O, EPL, Fiduciary and Crime	30,068.21	17,938.87	3,612.61	3,697.87		
Pollution Liability Ins 2022-2024 - 2 year policy @\$424979.09	PRL4279250	Argo - Colony Insurance Company	04/30/24	Other	23,324.50	13,915.53	2,802.38	2,868.51		
Commercial Cyber Liability	FN2106132	Beazley	11/01/21-	Other	13,015.85	7,765.33	1,563.82	1,600.73		
Brokerage Fee		Marsh Canada Limited	11/01/21-	Other	51,187.61	30,538.83	6,150.05	6,295.20		
Deductibles					63,314.04	37,773.53	7,607.01	7,786.54		
					752,106.75	448,711.28	90,363.59	92,496.23		

Notes:

Column [A] - Annual premiums per policies
Column [B] - Allocation methodology used to allocate annual premiums
Column [C] - Total amount of allocation basis used for 2021 budget cycle
Column [D] - NC portion of allocation basis used for 2021 budget cycle
Column [E] - Column [D] divided by Column [C]
Column [F] - Column [A] * Column [E]
Column [G] - Column [F] * 54.36%
Column [H] - Column [F] * 32.43%
Column [I] - Column [F] * 6.53%
Column [J] - Column [F] * 6.68%

Purpose:

To annualize current insurance premiums

Method:

The Company reviewed its insurance policies for the most recent renewal period and annualized those costs. These are the same costs used in the Sub 384 rate case, new premiums have not been issued yet. The premiums were then allocated to the North Carolina regulated companies using the various allocation methodologies outlined.

Update:

The Company reviewed all current policy documents and updated to the most recent applicable policies and premiums including updated allocations as necessary. The Company included an adjustment to the Workers Compensation Insurance account # 532009 which is in Schedule B-16a and b.

Carolina Water Service, Inc. of North Carolina
W-354, Sub 400
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

W1-10

Schedule 27a
Updated 09/19/2022

Supplement to Schedule A-15a and b

Page 1 of 2

Fusion - Oracle ERP Pro-Forma

		Fusion - Oracle ERP Allocation					
Line No.	Description	Fusion - Oracle	CII / Other	Allocation % to	CRU (US) Additional Rate	Allocation % to NC Reg.	Amount Allocated to
		ERP	Companies	CRU Companies	Base	Companies	NC Reg. Companies
		[A]	[B]	[C]	[D]	[E]	[F]
1	Fusion - Oracle ERP Asset - June 2020 Go Live	8,975,816.00	2,624,390.54	70.8%	6,351,425.46	17.7%	1,126,161.88
2	Fusion - Oracle ERP Asset - November 2020 Go Live	4,420,924.00	1,292,610.18	70.8%	3,128,313.82	17.7%	554,676.71
3	Fusion - Oracle ERP Regulatory Asset - 03/31/22 Proposed Start Date	1,453,799.33	425,068.56	70.8%	1,028,730.77	17.7%	182,402.74
4	Fusion - Oracle ERP Asset - June 2020 Go Live - A/ A through 3/31/23	(2,879,035.32)	(841,785.65)	70.8%	(2,037,249.67)	17.7%	(361,221.74)
5	Fusion - Oracle ERP Asset - November 2020 Go Live - A/ A through 3/31/23	(1,488,231.84)	(435,136.10)	70.8%	(1,053,095.74)	17.7%	(186,722.85)
6	Fusion - Oracle ERP Regulatory Asset - A/ A through 3/31/23	(205,242.26)	(60,009.68)	70.8%	(145,232.58)	17.7%	(25,750.97)
7	Total Cost to be Allocated	10,278,029.91	3,005,137.86		7,272,892.05		1,289,545.77

		Allocation to NC Reg. Companies Rate Groups			
Line No.	Description	CWSNC Uniform - Water	CWSNC Uniform - Sewer	BE/FH/TC - Water	BE/FH/TC - Sewer
		[G]	[H]	[I]	[J]
8	Fusion - Oracle ERP Asset - June 2020 Go Live	612,132.34	365,201.72	73,546.05	75,281.78
9	Fusion - Oracle ERP Asset - November 2020 Go Live	301,498.00	179,875.46	36,224.17	37,079.08
10	Fusion - Oracle ERP Regulatory Asset - 03/31/22 Proposed Start Date	99,146.15	59,151.17	11,912.14	12,193.28
11	Fusion - Oracle ERP Asset - June 2020 Go Live - A/ A through 3/31/23	(196,344.33)	(117,140.18)	(23,590.24)	(24,146.99)
12	Fusion - Oracle ERP Asset - November 2020 Go Live - A/ A through 3/31/23	(101,494.38)	(60,552.14)	(12,194.27)	(12,482.07)
13	Fusion - Oracle ERP Regulatory Asset - A/ A through 3/31/23	(13,997.10)	(8,350.75)	(1,681.71)	(1,721.40)
13	Total Allocation	700,940.67	418,185.29	84,216.13	86,203.68

Notes:

Column [A] - Total Fusion Oracle ERP costs. June & November go live plus regulatory asset = \$14,850,539 before amortization
Column [B] - Amount allocated to CII and other companies
Column [C] - Allocation percent to Corix Regulated Utility companies. See note 1 describing the regulatory asset percentage difference
Column [D] - Fusion - Oracle ERP Asset Original Costs and Accumulated Amortization after Tier 1 allocation
Column [E] - Allocation percent to North Carolina regulated companies
Column [F] - Amount allocated to North Carolina regulated companies
Column [G] - Column [F] Lines 1 through 4 * 54.36% respectively.
Column [H] - Column [F] Lines 1 through 4 * 32.43% respectively.
Column [I] - Column [F] Lines 1 through 4 * 6.53% respectively.
Column [J] - Column [F] Lines 1 through 4 * 6.68% respectively.

Carolina Water Service, Inc. of North Carolina
W-354, Sub 400
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

W1-10

Schedule 27b
Updated 09/19/22

Supplement to Schedule B-15a and b, and B-20a and b.

Page 2 of 2

Corporate Cost Allocation (CAM) Pro-Forma

Q1 - 2022 Shared Services Cost Annualization						
Line No.	Description	Q2 - 2022 Shared Services Cost Allocated to L48 States	Allocation % to NC Reg. Companies	Q1 Amount Allocated to NC Reg. Companies	Annualization Factor	Q1 22 Allocation to NC Reg. Companies (Annualized)
		[A]	[B]	[C]	[D]	[E]
1	Corporate Cost	12,064,417.37	17.73%	2,139,124.06	2	4,278,248.12
2	Regional Cost	1,657,416.64	17.73%	293,874.10	2	587,748.20
3	Total Cost to be Allocated	13,721,834.01		2,432,998.16		4,865,996.32
4	Oracle ERP Regulatory Asset Amortization					25,750.97

		Allocation to NC Reg. Companies Rate Groups				
		CWSNC				
Line No.	Description	CWSNC Uniform -	Uniform -	BF/FH/TC -	BF/FH/TC -	
		Water	Sewer	Water	Sewer	
		[F]	[G]	[H]	[I]	
5	Corporate Cost	2,325,468.53	1,387,388.09	279,398.76	285,992.74	691000 - Corporate Allocation
6	Regional Cost	319,474.21	190,600.18	38,383.96	39,289.85	692000 - Regional Allocation
7	Oracle ERP Regulatory Asset	13,997.10	8,350.75	1,681.71	1,721.40	612900 - Other Regulatory Expense
8	Total Allocation	2,658,939.84	1,586,339.03	319,464.43	327,003.99	

Notes:

Column [A] - Corix Infrastructure, Inc. shared services cost allocated to the Lower 48 States for the first half of 2022

Column [B] - Allocation percent to North Carolina regulated companies

Column [C] - Amount allocated to North Carolina regulated companies

Column [D] - Factor used to annualize first half allocated amount to North Carolina regulated companies

Column [E] - Column [C] * Column [D]

Column [F] - Column [E] Lines 1 and 2 * 54.36% respectively.

Column [G] - Column [E] Lines 1 and 2 * 32.43% respectively.

Column [H] - Column [E] Lines 1 and 2 * 6.53% respectively.

Column [I] - Column [E] Lines 1 and 2 * 6.68% respectively.

Purpose:

To include annualized pro-forma costs allocated to CWSNC from the Corix Infrastructure, Inc. Shared Services Group

Method:

Pro-forma adjustments were then made to each North Carolina regulated rate group to reflect the 2021 first quarter annualized cost. Include rate base costs associated with the Fusion - Oracle Accounting ERP system. Include amortization of the Oracle ERP Regulatory Asset starting 03/31/22.

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule 29 - CWSNC Uniform
Updated 09/19/2022

Line No.	Account	Description	Historical Test Year as adjusted	Inflator Rate	Rate Year 1 Adjustments	Rate Year 1 Revenue Requirement	Inflator Rate	Rate Year 2 Adjustments	Rate Year 2 Revenue Requirement	Inflator Rate	Rate Year 3 Adjustments	Rate Year 3 Revenue Requirement	Inflationary Assumption
Water			CWS-NC Uniform										
1	517001	Utility-Electric Power	1,073,062.54	7.60%	81,552.75	1,154,615.29	3.34%	38,591.60	1,193,206.89	3.34%	39,881.47	1,233,088.36	Compounded Pro Forma Expense Inflation
2	511001	Purchased Services-Water	1,665,456.86	0.00%	-	1,665,456.86	0.00%	-	1,665,456.86	0.00%	-	1,665,456.86	No General Inflation
3	512001	Shop Supplies and Tools	20,213.17	9.80%	1,981.48	22,194.65	3.34%	741.83	22,936.48	3.34%	766.62	23,703.11	Compounded Expense Inflator
4	512002	Repairs and Maintenance	330,187.29	9.80%	32,368.06	362,555.35	3.34%	12,117.97	374,673.32	3.34%	12,523.00	387,196.31	Compounded Expense Inflator
5	512003	Main Breaks	7,357.67	9.80%	721.27	8,078.94	3.34%	270.03	8,348.97	3.34%	279.05	8,628.02	Compounded Expense Inflator
6	512004	Traps Repair	-	9.80%	-	-	3.34%	-	-	3.34%	-	-	Compounded Expense Inflator
7	512005	Valve Repair	1,070.86	9.80%	104.98	1,175.84	3.34%	39.30	1,215.14	3.34%	40.61	1,255.75	Compounded Expense Inflator
8	512006	Manhole Maint	-	9.80%	-	-	3.34%	-	-	3.34%	-	-	Compounded Expense Inflator
9	512007	Major Repairs	-	9.80%	-	-	3.34%	-	-	3.34%	-	-	Compounded Expense Inflator
10	512008	Maintenance Electric Equip Repair	38,373.06	9.80%	3,761.69	42,134.74	3.34%	1,408.30	43,543.05	3.34%	1,455.37	44,998.42	Compounded Expense Inflator
11	512009	Permits	41,418.74	9.80%	4,060.25	45,479.00	3.34%	1,520.08	46,999.08	3.34%	1,570.89	48,569.96	Compounded Expense Inflator
12	512010	Sewer Rodding	10,599.57	9.80%	1,039.07	11,638.64	3.34%	389.01	12,027.64	3.34%	402.01	12,429.65	Compounded Expense Inflator
13	512011	Sewer Sludge Hauling	39,130.00	9.80%	3,835.89	42,965.89	3.34%	1,436.08	44,401.97	3.34%	1,484.08	45,886.05	Compounded Expense Inflator
14	512013	Excavation Restoration	5,279.77	9.80%	517.57	5,797.34	3.34%	193.77	5,991.11	3.34%	200.25	6,191.36	Compounded Expense Inflator
15	512014	Communication Expense	32,919.90	9.80%	3,227.12	36,147.02	3.34%	1,208.17	37,355.19	3.34%	1,248.55	38,603.74	Compounded Expense Inflator
16	512015	Equipment Rental	2,107.72	9.80%	206.62	2,314.34	3.34%	77.35	2,391.69	3.34%	79.94	2,471.63	Compounded Expense Inflator
17	512016	Uniforms	33,547.57	9.80%	3,288.65	36,836.22	3.34%	1,231.21	38,067.43	3.34%	1,272.36	39,339.78	Compounded Expense Inflator
18	512017	Weather/Hurricane/Fuel/Snow removal	18,074.29	9.80%	1,771.81	19,846.10	3.34%	663.33	20,509.43	3.34%	685.50	21,194.93	Compounded Expense Inflator
19	512018	Safety Supplies/Expense	17,991.19	9.80%	1,763.67	19,754.86	3.34%	660.28	20,415.14	3.34%	682.35	21,097.49	Compounded Expense Inflator
20	512019	Moving Expense	-	9.80%	-	-	3.34%	-	-	3.34%	-	-	Compounded Expense Inflator
21	512020	Service Claims	-	9.80%	-	-	3.34%	-	-	3.34%	-	-	Compounded Expense Inflator
22	512021	Landscaping	199,807.46	9.80%	19,587.00	219,394.46	3.34%	7,332.99	226,727.45	3.34%	7,578.09	234,305.54	Compounded Expense Inflator
23	512022	Other Contracted Workers	4,739.92	9.80%	464.65	5,204.57	3.34%	173.96	5,378.53	3.34%	179.77	5,558.30	Compounded Expense Inflator
24	512023	Pump Station R&M	-	9.80%	-	-	3.34%	-	-	3.34%	-	-	Compounded Expense Inflator
25	512024	Project Labor Hours (COGS)	-	9.80%	-	-	3.34%	-	-	3.34%	-	-	Compounded Expense Inflator
26	512025	Vehicle Labor Hours (COGS)	-	9.80%	-	-	3.34%	-	-	3.34%	-	-	Compounded Expense Inflator
27	512900	Other Plant and System Maintenance	45,466.36	9.80%	4,457.04	49,923.40	3.34%	1,668.63	51,592.03	3.34%	1,724.40	53,316.43	Compounded Expense Inflator
28	513002	Meter Supplies	63.28	9.80%	6.20	69.48	3.34%	2.32	71.81	3.34%	2.40	74.21	Compounded Expense Inflator
29	513003	Pipe, Plate, Gasket	-	9.80%	-	-	3.34%	-	-	3.34%	-	-	Compounded Expense Inflator
30	513004	Misc Bearing	-	9.80%	-	-	3.34%	-	-	3.34%	-	-	Compounded Expense Inflator
31	513005	Lubricant, Gases	-	9.80%	-	-	3.34%	-	-	3.34%	-	-	Compounded Expense Inflator
32	513006	Misc Gge Glass, Parts	-	9.80%	-	-	3.34%	-	-	3.34%	-	-	Compounded Expense Inflator
33	513007	Rig Equip	2,102.48	9.80%	206.10	2,308.58	3.34%	77.16	2,385.75	3.34%	79.74	2,465.49	Compounded Expense Inflator
34	513008	Electrical Equip	2,929.42	9.80%	287.17	3,216.59	3.34%	107.51	3,324.10	3.34%	111.10	3,435.20	Compounded Expense Inflator
35	513009	Lighting Supplies	-	9.80%	-	-	3.34%	-	-	3.34%	-	-	Compounded Expense Inflator
36	513010	Plant Air System	250.30	9.80%	24.54	274.84	3.34%	9.19	284.02	3.34%	9.49	293.52	Compounded Expense Inflator
37	513011	Valves and Traps	-	9.80%	-	-	3.34%	-	-	3.34%	-	-	Compounded Expense Inflator
38	513012	Duty and Brokerage	-	9.80%	-	-	3.34%	-	-	3.34%	-	-	Compounded Expense Inflator
39	513899	Materials and Supplies Write-off	-	9.80%	-	-	3.34%	-	-	3.34%	-	-	Compounded Expense Inflator
40	513900	Other Materials and Supplies	127,162.96	9.80%	12,465.71	139,628.67	3.34%	4,666.92	144,295.58	3.34%	4,822.90	149,118.49	Compounded Expense Inflator
41	512012	Deferred Maintenance Expense	220885.24	0.00%	-34701.44	186183.8	0.00%	-10316.81	175866.99	0.00%	-12895.89	162971.1	No General Inflation
42	515001	Laboratory Testing	40,130.70	7.60%	3,049.93	43,180.63	3.34%	1,443.26	44,623.89	3.34%	1,491.50	46,115.39	Compounded Pro Forma Expense Inflation
43	515002	Test - Water/Sewer	136,120.85	7.60%	10,345.18	146,466.03	3.34%	4,895.45	151,361.48	3.34%	5,059.07	156,420.55	Compounded Pro Forma Expense Inflation
44	515003	Test - Equipment/Chemical	16,899.43	7.60%	1,284.36	18,183.78	3.34%	607.77	18,791.55	3.34%	628.08	19,419.64	Compounded Pro Forma Expense Inflation
45	515004	Test - Safe Drinking Water Act	2,237.06	7.60%	170.02	2,407.08	3.34%	80.45	2,487.53	3.34%	83.14	2,570.67	Compounded Pro Forma Expense Inflation
46	516001	Service - Meter Reading	229,336.46	9.80%	22,481.71	251,818.17	3.34%	8,416.71	260,234.89	3.34%	8,698.03	268,932.92	Compounded Expense Inflator
47	514001	Chlorine	36,037.11	7.60%	2,738.82	38,775.93	3.34%	1,296.04	40,071.97	3.34%	1,339.36	41,411.32	Compounded Pro Forma Expense Inflation
48	514002	Odor Control Chemicals	359.02	7.60%	27.29	386.31	3.34%	12.91	399.22	3.34%	13.34	412.56	Compounded Pro Forma Expense Inflation
49	514900	Other Chemicals	358,983.33	7.60%	27,282.73	386,266.06	3.34%	12,910.47	399,176.53	3.34%	13,341.99	412,518.52	Compounded Pro Forma Expense Inflation
50	601000	Vehicle Leasing	6,352.28	9.80%	622.71	6,974.99	3.34%	233.13	7,208.12	3.34%	240.92	7,449.04	Compounded Expense Inflator
51	602000	Vehicle Fuel	179,346.20	9.80%	17,581.20	196,927.40	3.34%	6,582.06	203,509.45	3.34%	6,802.05	210,311.51	Compounded Expense Inflator
52	603000	Vehicle Repairs and Maintenance	83,594.77	9.80%	8,194.74	91,789.52	3.34%	3,067.95	94,857.47	3.34%	3,170.49	98,027.96	Compounded Expense Inflator
53	604000	Vehicle Registration/Licensing Fees	309.09	9.80%	30.30	339.39	3.34%	11.34	350.74	3.34%	11.72	362.46	Compounded Expense Inflator
54	605000	Vehicle - Employee Mileage Claim	-	9.80%	-	-	3.34%	-	-	3.34%	-	-	Compounded Expense Inflator
55	606000	Project Vehicle Hours	-	9.80%	-	-	3.34%	-	-	3.34%	-	-	Compounded Expense Inflator
56	607000	Vehicle Charged to Projects	-	9.80%	-	-	3.34%	-	-	3.34%	-	-	Compounded Expense Inflator

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule 29 - CWSNC Uniform
Updated 09/19/2022

Line No.	Account	Description	Historical Test Year as adjusted	Inflator Rate	Rate Year 1 Adjustments	Rate Year 1 Revenue Requirement	Inflator Rate	Rate Year 2 Adjustments	Rate Year 2 Revenue Requirement	Inflator Rate	Rate Year 3 Adjustments	Rate Year 3 Revenue Requirement	Inflationary Assumption
57	609000	Vehicle - Other Costs	11,003.78	9.80%	1,078.69	12,082.47	3.34%	403.84	12,486.32	3.34%	417.34	12,903.66	Compounded Expense Inflator
58	522001	Capitalized Time	(450,858.00)	3.00%	(13,525.74)	(464,383.74)	3.00%	(13,931.51)	(478,315.25)	3.00%	(14,349.46)	(492,664.71)	Salaries Increase Assumptions
59	540100	Consulting	9,211.38	9.80%	902.99	10,114.37	3.34%	338.06	10,452.43	3.34%	349.36	10,801.79	Compounded Expense Inflator
60	540200	Accounting and Audit	-	9.80%	-	-	3.34%	-	-	3.34%	-	-	Compounded Expense Inflator
61	540300	Recruitment	7,045.65	9.80%	690.68	7,736.33	3.34%	258.58	7,994.91	3.34%	267.22	8,262.13	Compounded Expense Inflator
62	540400	Legal	35,280.31	9.80%	3,458.51	38,738.82	3.34%	1,294.80	40,033.62	3.34%	1,338.07	41,371.69	Compounded Expense Inflator
63	540500	Payroll	-	9.80%	-	-	3.34%	-	-	3.34%	-	-	Compounded Expense Inflator
64	540600	Tax	-	9.80%	-	-	3.34%	-	-	3.34%	-	-	Compounded Expense Inflator
65	540700	Engineering	13,666.55	9.80%	1,339.72	15,006.28	3.34%	501.57	15,507.84	3.34%	518.33	16,026.18	Compounded Expense Inflator
66	540800	Temporary Labor	275.58	9.80%	27.02	302.60	3.34%	10.11	312.71	3.34%	10.45	323.17	Compounded Expense Inflator
67	540900	Police	-	9.80%	-	-	3.34%	-	-	3.34%	-	-	Compounded Expense Inflator
68	541000	Environmental	-	9.80%	-	-	3.34%	-	-	3.34%	-	-	Compounded Expense Inflator
69	541100	Management Fee	-	9.80%	-	-	3.34%	-	-	3.34%	-	-	Compounded Expense Inflator
70	541200	Contractor Outside Services	338.22	9.80%	33.16	371.37	3.34%	12.41	383.79	3.34%	12.83	396.61	Compounded Expense Inflator
71	541300	Employee Finder Fees	416.39	9.80%	40.82	457.21	3.34%	15.28	472.49	3.34%	15.79	488.28	Compounded Expense Inflator
72	549000	Other Outside Services	58,153.87	9.80%	5,700.79	63,854.66	3.34%	2,134.26	65,988.92	3.34%	2,205.60	68,194.52	Compounded Expense Inflator
73	0	Salaries & Wages - General	3,949,930.56	3.00%	118,497.92	4,068,428.47	3.00%	122,052.85	4,190,481.33	3.00%	125,714.44	4,316,195.77	Salaries Increase Assumptions
74	628100	Billing Stock	-	9.80%	-	-	3.34%	-	-	3.34%	-	-	Compounded Expense Inflator
75	628200	Billing Envelopes	-	9.80%	-	-	3.34%	-	-	3.34%	-	-	Compounded Expense Inflator
76	628300	Billing Postage	-	9.80%	-	-	3.34%	-	-	3.34%	-	-	Compounded Expense Inflator
77	628400	Customer Service Printing	269,263.32	7.60%	20,464.01	289,727.33	3.34%	9,683.78	299,411.11	3.34%	10,007.45	309,418.56	Compounded Pro Forma Expense Inflatio
78	628500	Customer Freight/Courier Charges	163.90	9.80%	16.07	179.96	3.34%	6.02	185.98	3.34%	6.22	192.20	Compounded Expense Inflator
79	550200	Computer Repair and Maintenance	5.39	9.80%	0.53	5.91	3.34%	0.20	6.11	3.34%	0.20	6.32	Compounded Expense Inflator
80	550300	Computer Supplies	-	9.80%	-	-	3.34%	-	-	3.34%	-	-	Compounded Expense Inflator
81	550400	Internet Services	415.64	9.80%	40.75	456.39	3.34%	15.25	471.64	3.34%	15.76	487.41	Compounded Expense Inflator
82	550500	Website Development	-	9.80%	-	-	3.34%	-	-	3.34%	-	-	Compounded Expense Inflator
83	550600	Computer Licensing	267.44	9.80%	26.22	293.66	3.34%	9.82	303.47	3.34%	10.14	313.62	Compounded Expense Inflator
84	550700	Software	-	9.80%	-	-	3.34%	-	-	3.34%	-	-	Compounded Expense Inflator
85	550800	Computer Amort	-	9.80%	-	-	3.34%	-	-	3.34%	-	-	Compounded Expense Inflator
86	559900	Other Computer/IT Expenses	(53.78)	9.80%	(5.27)	(59.06)	3.34%	(1.97)	(61.03)	3.34%	(2.04)	(63.07)	Compounded Expense Inflator
87	581100	Office Supplies	9,725.47	9.80%	953.38	10,678.86	3.34%	356.93	11,035.78	3.34%	368.86	11,404.64	Compounded Expense Inflator
88	581200	Kitchen Supplies	1,667.58	9.80%	163.47	1,831.05	3.34%	61.20	1,892.25	3.34%	63.25	1,955.50	Compounded Expense Inflator
89	581300	Cleaning Supplies	981.96	9.80%	96.26	1,078.22	3.34%	36.04	1,114.26	3.34%	37.24	1,151.50	Compounded Expense Inflator
90	582100	Office Equipment	2,397.00	9.80%	234.98	2,631.97	3.34%	87.97	2,719.94	3.34%	90.91	2,810.85	Compounded Expense Inflator
91	582200	Office Equipment - Rent/Leased	942.96	9.80%	92.44	1,035.40	3.34%	34.61	1,070.01	3.34%	35.76	1,105.77	Compounded Expense Inflator
92	583100	Office Printing/Blueprints	8,605.17	9.80%	843.56	9,448.73	3.34%	315.81	9,764.55	3.34%	326.37	10,090.91	Compounded Expense Inflator
93	583200	Office Publications/Subscriptions	-	9.80%	-	-	3.34%	-	-	3.34%	-	-	Compounded Expense Inflator
94	583300	Artwork, Display and Banner	90.58	9.80%	8.88	99.46	3.34%	3.32	102.78	3.34%	3.44	106.22	Compounded Expense Inflator
95	583400	Office Shipping Charges/Postage/Courier	23,360.35	9.80%	2,290.00	25,650.35	3.34%	857.33	26,507.68	3.34%	885.99	27,393.66	Compounded Expense Inflator
96	583500	Office Duties and Brokerage	1,409.45	9.80%	138.17	1,547.61	3.34%	51.73	1,599.34	3.34%	53.46	1,652.80	Compounded Expense Inflator
97	611100	Rate Case Amortization	308,964.00	0.00%	-	308,964.00	0.00%	-	308,964.00	0.00%	-	308,964.00	No General Inflation
98	611200	Cost of Service Study	-	9.80%	-	-	3.34%	-	-	3.34%	-	-	Compounded Expense Inflator
99	611300	Depreciation Study	-	9.80%	-	-	3.34%	-	-	3.34%	-	-	Compounded Expense Inflator
100	611400	Regulatory Penalties and Fines	-	9.80%	-	-	3.34%	-	-	3.34%	-	-	Compounded Expense Inflator
101	612100	Regulatory Fees	2,518.25	9.80%	246.86	2,765.11	3.34%	92.42	2,857.53	3.34%	95.51	2,953.04	Compounded Expense Inflator
102	612200	Water Resource Conservation	-	9.80%	-	-	3.34%	-	-	3.34%	-	-	Compounded Expense Inflator
103	612300	Misc Rate Case Expense	-	9.80%	-	-	3.34%	-	-	3.34%	-	-	Compounded Expense Inflator
104	612900	Other Regulatory Expenses	88,947.35	9.80%	8,719.45	97,666.81	3.34%	3,264.39	100,931.20	3.34%	3,373.50	104,304.70	Compounded Expense Inflator
105	531001	401K Profit Sharing	100,743.75	7.60%	7,656.52	108,400.27	3.34%	3,623.15	112,023.42	3.34%	3,744.25	115,767.66	Compounded Pro Forma Expense Inflatio
106	531002	401K Match	98,446.13	7.60%	7,481.91	105,928.04	3.34%	3,540.51	109,468.55	3.34%	3,658.85	113,127.41	Compounded Pro Forma Expense Inflatio
107	531100	RRSP Match	-	7.60%	-	-	3.34%	-	-	3.34%	-	-	Compounded Pro Forma Expense Inflatio
108	531200	Canada Pension Plan	-	7.60%	-	-	3.34%	-	-	3.34%	-	-	Compounded Pro Forma Expense Inflatio
109	532001	Health Admin and Stop Loss	0.00	7.60%	0.00	0.00	3.34%	0.00	0.00	3.34%	0.00	0.00	Compounded Pro Forma Expense Inflatio
110	532002	Dental	24,787.71	7.60%	1,883.87	26,671.58	3.34%	891.46	27,563.04	3.34%	921.26	28,484.30	Compounded Pro Forma Expense Inflatio
111	532003	Medical	-	7.60%	-	-	3.34%	-	-	3.34%	-	-	Compounded Pro Forma Expense Inflatio
112	532004	Medical Service Plan (MSP)	-	7.60%	-	-	3.34%	-	-	3.34%	-	-	Compounded Pro Forma Expense Inflatio
113	532005	Employee Insurance Deductions	0.00	7.60%	0.00	0.00	3.34%	0.00	0.00	3.34%	0.00	0.00	Compounded Pro Forma Expense Inflatio

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Line No.	Account	Description	Historical Test Year as adjusted	Inflator Rate	Rate Year 1 Adjustments	Rate Year 1 Revenue Requirement	Inflator Rate	Rate Year 2 Adjustments	Rate Year 2 Revenue Requirement	Inflator Rate	Rate Year 3 Adjustments	Rate Year 3 Revenue Requirement	Inflationary Assumption
114	532006	Health Insurance Claims	678,432.81	7.60%	51,560.89	729,993.70	3.34%	24,399.14	754,392.85	3.34%	25,214.65	779,607.50	Compounded Pro Forma Expense Inflatio
115	532007	Group Insurance	-	7.60%	-	-	3.34%	-	-	3.34%	-	-	Compounded Pro Forma Expense Inflatio
116	532008	Health Insurance	-	7.60%	-	-	3.34%	-	-	3.34%	-	-	Compounded Pro Forma Expense Inflatio
117	532009	Workers Compensation Insurance (WCB)	37,704.43	7.60%	2,865.54	40,569.97	3.34%	1,356.00	41,925.97	3.34%	1,401.32	43,327.29	Compounded Pro Forma Expense Inflatio
118	532010	Unemployment Insurance (EI)	-	7.60%	-	-	3.34%	-	-	3.34%	-	-	Compounded Pro Forma Expense Inflatio
119	532011	Union Dues	-	7.60%	-	-	3.34%	-	-	3.34%	-	-	Compounded Pro Forma Expense Inflatio
120	532012	Term Life Insurance	29,308.27	7.60%	2,227.43	31,535.70	3.34%	1,054.04	32,589.74	3.34%	1,089.27	33,679.01	Compounded Pro Forma Expense Inflatio
121	532013	Term Life Insurance Opt	(0.00)	7.60%	(0.00)	(0.00)	3.34%	(0.00)	(0.01)	3.34%	(0.00)	(0.01)	Compounded Pro Forma Expense Inflatio
122	532014	Depend Life Insurance Opt	-	7.60%	-	-	3.34%	-	-	3.34%	-	-	Compounded Pro Forma Expense Inflatio
123	532015	Vacation	-	7.60%	-	-	3.34%	-	-	3.34%	-	-	Compounded Pro Forma Expense Inflatio
124	532016	Education / Tuition	-	7.60%	-	-	3.34%	-	-	3.34%	-	-	Compounded Pro Forma Expense Inflatio
125	532017	Safety	-	7.60%	-	-	3.34%	-	-	3.34%	-	-	Compounded Pro Forma Expense Inflatio
126	532018	Longevity	-	7.60%	-	-	3.34%	-	-	3.34%	-	-	Compounded Pro Forma Expense Inflatio
127	532019	Incidental	-	7.60%	-	-	3.34%	-	-	3.34%	-	-	Compounded Pro Forma Expense Inflatio
128	532020	Holiday	-	7.60%	-	-	3.34%	-	-	3.34%	-	-	Compounded Pro Forma Expense Inflatio
129	532021	Jury Duty	-	7.60%	-	-	3.34%	-	-	3.34%	-	-	Compounded Pro Forma Expense Inflatio
130	532900	Other Employee Benefits	6,728.81	7.60%	511.39	7,240.20	3.34%	241.99	7,482.19	3.34%	250.08	7,732.27	Compounded Pro Forma Expense Inflatio
131	532999	Payroll Suspende	-	7.60%	-	-	3.34%	-	-	3.34%	-	-	Compounded Pro Forma Expense Inflatio
132	560100	General Liability Insurance	182,426.51	7.60%	13,864.42	196,290.93	3.34%	6,560.78	202,851.71	3.34%	6,780.07	209,631.78	Compounded Pro Forma Expense Inflatio
133	560200	Property Insurance	280,602.06	7.24%	20,322.83	300,924.89	6.60%	19,860.54	320,785.43	5.78%	18,539.69	339,325.11	Property Insurance Expense Inflation
134	560300	Vehicle Insurance	70,463.54	7.24%	5,103.38	75,566.92	6.60%	4,987.29	80,554.21	5.78%	4,655.60	85,209.81	Property Insurance Expense Inflation
135	560400	Uninsured Losses	63,314.04	7.60%	4,811.87	68,125.91	3.34%	2,277.02	70,402.93	3.34%	2,353.13	72,756.07	Compounded Pro Forma Expense Inflatio
136	560500	Other Insurance	117,596.17	7.60%	8,937.31	126,533.48	3.34%	4,229.23	130,762.71	3.34%	4,370.58	135,133.29	Compounded Pro Forma Expense Inflatio
137	571100	Building Rent	211,794.00	-	16,096.34	227,890.34	-	5,469.37	233,359.71	-	5,600.63	238,960.35	Manual Calculation
138	584100	Office Electric	1,875.71	9.80%	183.87	2,059.59	3.34%	68.84	2,128.42	3.34%	71.14	2,199.56	Compounded Expense Inflator
139	584200	Office Gas/Heat	674.27	9.80%	66.10	740.37	3.34%	24.75	765.11	3.34%	25.57	790.68	Compounded Expense Inflator
140	584300	Office Water	22,442.52	9.80%	2,200.03	24,642.55	3.34%	823.65	25,466.19	3.34%	851.18	26,317.37	Compounded Expense Inflator
141	584900	Office Other Utilities	160.69	9.80%	15.75	176.44	3.34%	5.90	182.34	3.34%	6.09	188.44	Compounded Expense Inflator
142	585100	Office Garbage Disposal/Removal	59,634.83	9.80%	5,845.97	65,480.80	3.34%	2,188.62	67,669.41	3.34%	2,261.77	69,931.18	Compounded Expense Inflator
143	585200	Office Landscape/Mowing	17,696.55	9.80%	1,734.78	19,431.34	3.34%	649.47	20,080.80	3.34%	671.18	20,751.98	Compounded Expense Inflator
144	585300	Office Snow Removal	-	9.80%	-	-	3.34%	-	-	3.34%	-	-	Compounded Expense Inflator
145	585400	Office Security/Alarm System	1,841.43	9.80%	180.51	2,021.94	3.34%	67.58	2,089.52	3.34%	69.84	2,159.36	Compounded Expense Inflator
146	585500	Office Cleaning Services	2,035.99	9.80%	199.59	2,235.57	3.34%	74.72	2,310.30	3.34%	77.22	2,387.51	Compounded Expense Inflator
147	585900	Other Office Maintenance	3,711.19	9.80%	363.81	4,075.00	3.34%	136.20	4,211.20	3.34%	140.75	4,351.95	Compounded Expense Inflator
148	586100	Landline/Telephone/Fax	32,296.70	9.80%	3,166.03	35,462.73	3.34%	1,185.30	36,648.02	3.34%	1,224.92	37,872.94	Compounded Expense Inflator
149	586200	Cellular/Mobile Phones	24,560.65	9.80%	2,407.67	26,968.32	3.34%	901.38	27,869.70	3.34%	931.51	28,801.21	Compounded Expense Inflator
150	587100	Holiday Events/Picnics	-	9.80%	-	-	3.34%	-	-	3.34%	-	-	Compounded Expense Inflator
151	587200	Meals and Entertainment	-	9.80%	-	-	3.34%	-	-	3.34%	-	-	Compounded Expense Inflator
152	587300	Meals and Entertainment - 50% Tax Deductible	-	9.80%	-	-	3.34%	-	-	3.34%	-	-	Compounded Expense Inflator
153	587400	Meals and Entertainment - Non Deductible	-	9.80%	-	-	3.34%	-	-	3.34%	-	-	Compounded Expense Inflator
154	587500	Answering Service	6,278.10	9.80%	615.44	6,893.54	3.34%	230.41	7,123.95	3.34%	238.11	7,362.05	Compounded Expense Inflator
155	587900	Other Office Expenses	3,540.82	9.80%	347.10	3,887.93	3.34%	129.95	4,017.88	3.34%	134.29	4,152.17	Compounded Expense Inflator
156	511003	Purchased Services-Gas	3,923.83	9.80%	384.65	4,308.48	3.34%	144.01	4,452.49	3.34%	148.82	4,601.31	Compounded Expense Inflator
157	621100	Advertising	-	9.80%	-	-	3.34%	-	-	3.34%	-	-	Compounded Expense Inflator
158	621300	Trade Shows	-	9.80%	-	-	3.34%	-	-	3.34%	-	-	Compounded Expense Inflator
159	621400	Promotions/Corporate Sponsor	-	9.80%	-	-	3.34%	-	-	3.34%	-	-	Compounded Expense Inflator
160	621500	Promotions - 50%	-	9.80%	-	-	3.34%	-	-	3.34%	-	-	Compounded Expense Inflator
161	622100	Bank Service Charges	839.41	9.80%	82.29	921.69	3.34%	30.81	952.50	3.34%	31.84	984.33	Compounded Expense Inflator
162	622200	Bank Charges - Merchant	-	9.80%	-	-	3.34%	-	-	3.34%	-	-	Compounded Expense Inflator
163	622300	Letter of Credit Fees	-	9.80%	-	-	3.34%	-	-	3.34%	-	-	Compounded Expense Inflator
164	623100	Donations for Registered Charities	-	9.80%	-	-	3.34%	-	-	3.34%	-	-	Compounded Expense Inflator
165	623200	Donations for Non-Registered Charities	-	9.80%	-	-	3.34%	-	-	3.34%	-	-	Compounded Expense Inflator
166	624100	License Fees	2,109.86	9.80%	206.83	2,316.68	3.34%	77.43	2,394.12	3.34%	80.02	2,474.14	Compounded Expense Inflator
167	624200	Franchise Fee	-	9.80%	-	-	3.34%	-	-	3.34%	-	-	Compounded Expense Inflator
168	624300	5% FF on Usage	-	9.80%	-	-	3.34%	-	-	3.34%	-	-	Compounded Expense Inflator
169	625100	Penalties and Fines	-	9.80%	-	-	3.34%	-	-	3.34%	-	-	Compounded Expense Inflator
170	625200	Penalties and Fines to Government (Non-Deductible)	-	9.80%	-	-	3.34%	-	-	3.34%	-	-	Compounded Expense Inflator

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
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Test Year: March 31, 2022
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Updated 09/19/2022

Line No.	Account	Description	Historical Test Year as adjusted	Inflator Rate	Rate Year 1 Adjustments	Rate Year 1 Revenue Requirement	Inflator Rate	Rate Year 2 Adjustments	Rate Year 2 Revenue Requirement	Inflator Rate	Rate Year 3 Adjustments	Rate Year 3 Revenue Requirement	Inflationary Assumption
171	625300	Late Fees	-	9.80%	-	-	3.34%	-	-	3.34%	-	-	Compounded Expense Inflator
172	626100	Education and Training	9,646.29	9.80%	945.62	10,591.91	3.34%	354.02	10,945.93	3.34%	365.85	11,311.78	Compounded Expense Inflator
173	629100	Memberships and Dues	25,298.88	9.80%	2,480.03	27,778.92	3.34%	928.48	28,707.39	3.34%	959.51	29,666.90	Compounded Expense Inflator
174	629200	Payroll Admin Fee	-	9.80%	-	-	3.34%	-	-	3.34%	-	-	Compounded Expense Inflator
175	629300	Director and Board Fees	-	9.80%	-	-	3.34%	-	-	3.34%	-	-	Compounded Expense Inflator
176	629400	Corporate Governance	-	9.80%	-	-	3.34%	-	-	3.34%	-	-	Compounded Expense Inflator
177	629500	Credit Card Expense Clearing	(7,331.72)	9.80%	(718.72)	(8,050.45)	3.34%	(269.08)	(8,319.52)	3.34%	(278.07)	(8,597.59)	Compounded Expense Inflator
178	629600	Credit Card/Cash Expense - Unallocated	-	9.80%	-	-	3.34%	-	-	3.34%	-	-	Compounded Expense Inflator
179	629700	Cost Recovery	-	9.80%	-	-	3.34%	-	-	3.34%	-	-	Compounded Expense Inflator
180	629800	Discount/Rebate Taken	-	9.80%	-	-	3.34%	-	-	3.34%	-	-	Compounded Expense Inflator
181	629850	Community Service	-	9.80%	-	-	3.34%	-	-	3.34%	-	-	Compounded Expense Inflator
182	629900	Other Misc Expense	257,276.60	9.80%	25,220.67	282,497.27	3.34%	9,442.12	291,939.39	3.34%	9,757.72	301,697.11	Compounded Expense Inflator
183	591000	Accommodation/Hotel/Lodging	6,391.53	9.80%	626.56	7,018.08	3.34%	234.57	7,252.66	3.34%	242.41	7,495.07	Compounded Expense Inflator
184	592000	Airfare	187.44	9.80%	18.37	205.81	3.34%	6.88	212.69	3.34%	7.11	219.80	Compounded Expense Inflator
185	593000	Transportation excl. Airfare	1,405.42	9.80%	137.77	1,543.19	3.34%	51.58	1,594.77	3.34%	53.30	1,648.07	Compounded Expense Inflator
186	594000	Travel - Meals and Entertainment	(67.23)	9.80%	(6.59)	(73.82)	3.34%	(2.47)	(76.29)	3.34%	(2.55)	(78.84)	Compounded Expense Inflator
187	595000	Travel - Meals and Entertainment - 50% Tax Deductible	3,392.73	9.80%	332.59	3,725.32	3.34%	124.51	3,849.83	3.34%	128.68	3,978.51	Compounded Expense Inflator
188	596000	Travel - Meals and Entertainment - Non Deductible	-	9.80%	-	-	3.34%	-	-	3.34%	-	-	Compounded Expense Inflator
189	599900	Other Travel	17,941.42	9.80%	1,758.79	19,700.21	3.34%	658.46	20,358.66	3.34%	680.46	21,039.13	Compounded Expense Inflator
190	0	Federal Protected EDIT Amortization	(36,704.00)	0.00%	-	(36,704.00)	0.00%	-	(36,704.00)	0.00%	-	(36,704.00)	No General Inflation
191	630002	Commission Ordered Adjustments	-	9.80%	-	-	3.34%	-	-	3.34%	-	-	Compounded Expense Inflator
192	691000	Corporate Allocation	2,325,468.53	7.60%	176,735.61	2,502,204.14	3.34%	83,633.10	2,585,837.24	3.34%	86,428.43	2,672,265.67	Compounded Pro Forma Expense Inflation
193	692000	Regional Allocation	319,474.21	7.60%	24,280.04	343,754.25	3.34%	11,489.56	355,243.81	3.34%	11,873.59	367,117.40	Compounded Pro Forma Expense Inflation
194	693000	Contract Shared Services Allocation	-	9.80%	-	-	3.34%	-	-	3.34%	-	-	Compounded Expense Inflator
195	694000	Allocation Markup	-	9.80%	-	-	3.34%	-	-	3.34%	-	-	Compounded Expense Inflator
196	811003	Standby/Letter of Credit Fees	37,452.41	9.30%	3,483.07	40,935.49	2.40%	982.45	41,917.94	2.40%	1,006.03	42,923.97	Expense Inflation
197	816004	Interest - Other	34,813.06	0.46%	160.19	34,973.25	0.92%	321.86	35,295.10	0.92%	324.82	35,619.92	Growth Inflation
198	641100	FICA	295,618.54	3.00%	8,868.56	304,487.10	3.00%	9,134.61	313,621.71	3.00%	9,408.65	323,030.36	Salaries Increase Assumptions
199	641200	Payroll Tax	-	3.00%	-	-	3.00%	-	-	3.00%	-	-	Salaries Increase Assumptions
200	641300	Employer Health Tax	-	3.00%	-	-	3.00%	-	-	3.00%	-	-	Salaries Increase Assumptions
201	642100	Federal Unemployment Tax	2,131.09	3.00%	63.93	2,195.03	3.00%	65.85	2,260.88	3.00%	67.83	2,328.70	Salaries Increase Assumptions
202	642200	State Unemployment Tax	6,655.62	3.00%	199.67	6,855.29	3.00%	205.66	7,060.95	3.00%	211.83	7,272.78	Salaries Increase Assumptions
203	642300	Other Payroll Taxes	-	3.00%	-	-	3.00%	-	-	3.00%	-	-	Salaries Increase Assumptions
204	643100	Franchise Taxes	66,687.20	9.80%	6,537.31	73,224.51	3.34%	2,447.44	75,671.95	3.34%	2,529.24	78,201.19	Compounded Expense Inflator
205	643200	Gross Receipts Taxes	-	9.80%	-	-	3.34%	-	-	3.34%	-	-	Compounded Expense Inflator
206	643300	Personal Property Taxes	77,727.93	7.24%	5,629.51	83,357.44	6.60%	5,501.45	88,858.89	5.78%	5,135.57	93,994.46	Real Estate Taxes
207	643400	Real Estate Taxes	58,241.08	7.24%	4,218.16	62,459.24	6.60%	4,122.21	66,581.44	5.78%	3,848.05	70,429.50	Real Estate Taxes
208	643500	Sales And Use Taxes	-	9.80%	-	-	3.34%	-	-	3.34%	-	-	Compounded Expense Inflator
209	643600	Utility/Commission Taxes	-	-	34,900.84	34,900.84	-	1,971.65	36,872.49	-	1,679.62	38,552.11	Manual Calculation
210	643700	Other General Taxes	(10,201.66)	9.80%	(1,000.06)	(11,201.72)	3.34%	(374.40)	(11,576.13)	3.34%	(386.92)	(11,963.04)	Compounded Expense Inflator

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
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Schedule 29 - CWSNC Uniform
Updated 09/19/2022

Line No.	Account	Description	Historical Test Year as adjusted	Inflator Rate	Rate Year 1 Adjustments	Rate Year 1 Revenue Requirement	Inflator Rate	Rate Year 2 Adjustments	Rate Year 2 Revenue Requirement	Inflator Rate	Rate Year 3 Adjustments	Rate Year 3 Revenue Requirement	Inflationary Assumption
Sewer			CWS-NC Uniform										
211	517001	Utility-Electric Power	838,500.30	7.60%	63,726.02	902,226.33	2.59%	23,358.69	925,585.02	2.59%	23,963.45	949,548.46	Compounded Pro Forma Expense Inflation
212	511002	Purchased Services-Sewer	1,048,540.29	0.00%	-	1,048,540.29	0.00%	-	1,048,540.29	0.00%	-	1,048,540.29	No General Inflation
213	512001	Shop Supplies and Tools	14,003.78	9.40%	1,316.48	15,320.26	2.59%	396.64	15,716.90	2.59%	406.91	16,123.81	Compounded Expense Inflator
214	512002	Repairs and Maintenance	189,562.37	9.40%	17,820.51	207,382.88	2.59%	5,369.15	212,752.04	2.59%	5,508.16	218,260.20	Compounded Expense Inflator
215	512003	Main Breaks	982.28	9.40%	92.34	1,074.62	2.59%	27.82	1,102.44	2.59%	28.54	1,130.99	Compounded Expense Inflator
216	512004	Traps Repair	-	9.40%	-	-	2.59%	-	-	2.59%	-	-	Compounded Expense Inflator
217	512005	Valve Repair	68.80	9.40%	6.47	75.27	2.59%	1.95	77.22	2.59%	2.00	79.22	Compounded Expense Inflator
218	512006	Manhole Maint	13,794.02	9.40%	1,296.76	15,090.78	2.59%	390.70	15,481.48	2.59%	400.82	15,882.30	Compounded Expense Inflator
219	512007	Major Repairs	127.53	9.40%	11.99	139.52	2.59%	3.61	143.13	2.59%	3.71	146.84	Compounded Expense Inflator
220	512008	Maintenance Electric Equip Repair	60,716.67	9.40%	5,707.90	66,424.57	2.59%	1,719.74	68,144.30	2.59%	1,764.26	69,908.56	Compounded Expense Inflator
221	512009	Permits	44,837.15	9.40%	4,215.08	49,052.23	2.59%	1,269.96	50,322.19	2.59%	1,302.84	51,625.04	Compounded Expense Inflator
222	512010	Sewer Rodding	205,212.63	9.40%	19,291.77	224,504.41	2.59%	5,812.43	230,316.84	2.59%	5,962.92	236,279.75	Compounded Expense Inflator
223	512011	Sewer Sludge Hauling	464,136.23	9.40%	43,632.85	507,769.08	2.59%	13,146.17	520,915.25	2.59%	13,486.52	534,401.77	Compounded Expense Inflator
224	512013	Excavation Restoration	16.17	9.40%	1.52	17.69	2.59%	0.46	18.15	2.59%	0.47	18.62	Compounded Expense Inflator
225	512014	Communication Expense	52,340.26	9.40%	4,920.44	57,260.70	2.59%	1,482.48	58,743.18	2.59%	1,520.86	60,264.05	Compounded Expense Inflator
226	512015	Equipment Rental	1,331.00	9.40%	125.13	1,456.13	2.59%	37.70	1,493.82	2.59%	38.68	1,532.50	Compounded Expense Inflator
227	512016	Uniforms	13,741.64	9.40%	1,291.83	15,033.47	2.59%	389.22	15,422.69	2.59%	399.29	15,821.98	Compounded Expense Inflator
228	512017	Weather/Hurricane/Fuel/Snow removal	12,035.36	9.40%	1,131.43	13,166.79	2.59%	340.89	13,507.68	2.59%	349.71	13,857.39	Compounded Expense Inflator
229	512018	Safety Supplies/Expense	9,569.09	9.40%	899.58	10,468.67	2.59%	271.03	10,739.71	2.59%	278.05	11,017.76	Compounded Expense Inflator
230	512019	Moving Expense	-	9.40%	-	-	2.59%	-	-	2.59%	-	-	Compounded Expense Inflator
231	512020	Service Claims	-	9.40%	-	-	2.59%	-	-	2.59%	-	-	Compounded Expense Inflator
232	512021	Landscaping	105,387.90	9.40%	9,907.38	115,295.28	2.59%	2,985.00	118,280.28	2.59%	3,062.28	121,342.57	Compounded Expense Inflator
233	512022	Other Contracted Workers	4,175.94	9.40%	392.57	4,568.51	2.59%	118.28	4,686.79	2.59%	121.34	4,808.14	Compounded Expense Inflator
234	512023	Pump Station R&M	2,210.00	9.40%	207.76	2,417.76	2.59%	62.60	2,480.36	2.59%	64.22	2,544.57	Compounded Expense Inflator
235	512024	Project Labor Hours (COGS)	-	9.40%	-	-	2.59%	-	-	2.59%	-	-	Compounded Expense Inflator
236	512025	Vehicle Labor Hours (COGS)	-	9.40%	-	-	2.59%	-	-	2.59%	-	-	Compounded Expense Inflator
237	512900	Other Plant and System Maintenance	89,888.07	9.40%	8,450.26	98,338.33	2.59%	2,545.98	100,884.31	2.59%	2,611.90	103,496.21	Compounded Expense Inflator
238	513002	Meter Supplies	-	9.40%	-	-	2.59%	-	-	2.59%	-	-	Compounded Expense Inflator
239	513003	Pipe, Plate, Gasket	4,680.59	9.40%	440.02	5,120.61	2.59%	132.57	5,253.18	2.59%	136.01	5,389.18	Compounded Expense Inflator
240	513004	Misc Bearing	-	9.40%	-	-	2.59%	-	-	2.59%	-	-	Compounded Expense Inflator
241	513005	Lubricant, Gases	-	9.40%	-	-	2.59%	-	-	2.59%	-	-	Compounded Expense Inflator
242	513006	Misc Gge Glass, Parts	-	9.40%	-	-	2.59%	-	-	2.59%	-	-	Compounded Expense Inflator
243	513007	Rig Equip	110.72	9.40%	10.41	121.13	2.59%	3.14	124.26	2.59%	3.22	127.48	Compounded Expense Inflator
244	513008	Electrical Equip	8,062.36	9.40%	757.93	8,820.29	2.59%	228.36	9,048.65	2.59%	234.27	9,282.92	Compounded Expense Inflator
245	513009	Lighting Supplies	-	9.40%	-	-	2.59%	-	-	2.59%	-	-	Compounded Expense Inflator
246	513010	Plant Air System	1,959.12	9.40%	184.17	2,143.29	2.59%	55.49	2,198.78	2.59%	56.93	2,255.71	Compounded Expense Inflator
247	513011	Valves and Traps	-	9.40%	-	-	2.59%	-	-	2.59%	-	-	Compounded Expense Inflator
248	513012	Duty and Brokerage	-	9.40%	-	-	2.59%	-	-	2.59%	-	-	Compounded Expense Inflator
249	513899	Materials and Supplies Write-off	-	9.40%	-	-	2.59%	-	-	2.59%	-	-	Compounded Expense Inflator
250	513900	Other Materials and Supplies	100,163.73	9.40%	9,416.26	109,579.99	2.59%	2,837.03	112,417.03	2.59%	2,910.48	115,327.51	Compounded Expense Inflator
251	512012	Deferred Maintenance Expense	262,993.45	0.00%	9,243.71	272,237.16	0.00%	-	272,237.16	0.00%	(201,443.00)	70,794.16	No General Inflation
252	515001	Laboratory Testing	161,353.50	7.60%	12,262.87	173,616.37	2.59%	4,494.94	178,111.31	2.59%	4,611.31	182,722.62	Compounded Pro Forma Expense Inflation
253	515002	Test - Water/Sewer	133,770.14	7.60%	10,166.53	143,936.67	2.59%	3,726.53	147,663.20	2.59%	3,823.01	151,486.21	Compounded Pro Forma Expense Inflation
254	515003	Test - Equipment/Chemical	10,321.27	7.60%	784.42	11,105.69	2.59%	287.53	11,393.22	2.59%	294.97	11,688.19	Compounded Pro Forma Expense Inflation
255	515004	Test - Safe Drinking Water Act	112.68	7.60%	8.56	121.24	2.59%	3.14	124.38	2.59%	3.22	127.60	Compounded Pro Forma Expense Inflation
256	516001	Service - Meter Reading	3,024.11	9.40%	284.29	3,308.40	2.59%	85.65	3,394.06	2.59%	87.87	3,481.93	Compounded Expense Inflator
257	514001	Chlorine	63,517.72	7.60%	4,827.35	68,345.07	2.59%	1,769.46	70,114.52	2.59%	1,815.27	71,929.79	Compounded Pro Forma Expense Inflation
258	514002	Odor Control Chemicals	9,943.08	7.60%	755.67	10,698.75	2.59%	276.99	10,975.75	2.59%	284.16	11,259.91	Compounded Pro Forma Expense Inflation
259	514900	Other Chemicals	514,010.92	7.60%	39,064.83	553,075.75	2.59%	14,319.16	567,394.91	2.59%	14,689.89	582,084.80	Compounded Pro Forma Expense Inflation
260	601000	Vehicle Leasing	3,789.80	9.40%	356.27	4,146.08	2.59%	107.34	4,253.42	2.59%	110.12	4,363.54	Compounded Expense Inflator
261	602000	Vehicle Fuel	106,998.99	9.40%	10,058.84	117,057.83	2.59%	3,030.63	120,088.46	2.59%	3,109.10	123,197.56	Compounded Expense Inflator
262	603000	Vehicle Repairs and Maintenance	49,873.13	9.40%	4,688.51	54,561.64	2.59%	1,412.60	55,974.24	2.59%	1,449.18	57,423.42	Compounded Expense Inflator
263	604000	Vehicle Registration/Licensing Fees	184.41	9.40%	17.34	201.74	2.59%	5.22	206.97	2.59%	5.36	212.32	Compounded Expense Inflator
264	605000	Vehicle - Employee Mileage Claim	-	9.40%	-	-	2.59%	-	-	2.59%	-	-	Compounded Expense Inflator
265	606000	Project Vehicle Hours	-	9.40%	-	-	2.59%	-	-	2.59%	-	-	Compounded Expense Inflator
266	607000	Vehicle Charged to Projects	-	9.40%	-	-	2.59%	-	-	2.59%	-	-	Compounded Expense Inflator

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule 29 - CWSNC Uniform
Updated 09/19/2022

Line No.	Account	Description	Historical Test Year as adjusted	Inflator Rate	Rate Year 1 Adjustments	Rate Year 1 Revenue Requirement	Inflator Rate	Rate Year 2 Adjustments	Rate Year 2 Revenue Requirement	Inflator Rate	Rate Year 3 Adjustments	Rate Year 3 Revenue Requirement	Inflationary Assumption
267	609000	Vehicle - Other Costs	6,564.92	9.40%	617.16	7,182.08	2.59%	185.94	7,368.02	2.59%	190.76	7,558.78	Compounded Expense Inflator
268	522001	Capitalized Time	(268,985.00)	3.00%	(8,069.55)	(277,054.55)	3.00%	(8,311.64)	(285,366.19)	3.00%	(8,560.99)	(293,927.17)	Salaries Increase Assumptions
269	540100	Consulting	5,495.57	9.40%	516.63	6,012.20	2.59%	155.66	6,167.85	2.59%	159.69	6,327.54	Compounded Expense Inflator
270	540200	Accounting and Audit	-	9.40%	-	-	2.59%	-	-	2.59%	-	-	Compounded Expense Inflator
271	540300	Recruitment	4,203.48	9.40%	395.16	4,598.64	2.59%	119.06	4,717.70	2.59%	122.14	4,839.84	Compounded Expense Inflator
272	540400	Legal	21,048.44	9.40%	1,978.74	23,027.18	2.59%	596.17	23,623.35	2.59%	611.61	24,234.96	Compounded Expense Inflator
273	540500	Payroll	-	9.40%	-	-	2.59%	-	-	2.59%	-	-	Compounded Expense Inflator
274	540600	Tax	-	9.40%	-	-	2.59%	-	-	2.59%	-	-	Compounded Expense Inflator
275	540700	Engineering	8,153.55	9.40%	766.50	8,920.05	2.59%	230.94	9,150.99	2.59%	236.92	9,387.91	Compounded Expense Inflator
276	540800	Temporary Labor	164.42	9.40%	15.46	179.87	2.59%	4.66	184.53	2.59%	4.78	189.31	Compounded Expense Inflator
277	540900	Police	-	9.40%	-	-	2.59%	-	-	2.59%	-	-	Compounded Expense Inflator
278	541000	Environmental	-	9.40%	-	-	2.59%	-	-	2.59%	-	-	Compounded Expense Inflator
279	541100	Management Fee	-	9.40%	-	-	2.59%	-	-	2.59%	-	-	Compounded Expense Inflator
280	541200	Contractor Outside Services	201.78	9.40%	18.97	220.75	2.59%	5.72	226.47	2.59%	5.86	232.33	Compounded Expense Inflator
281	541300	Employee Finder Fees	248.42	9.40%	23.35	271.77	2.59%	7.04	278.81	2.59%	7.22	286.03	Compounded Expense Inflator
282	549000	Other Outside Services	34,694.94	9.40%	3,261.63	37,956.57	2.59%	982.70	38,939.26	2.59%	1,008.14	39,947.40	Compounded Expense Inflator
283	0	Salaries & Wages - General	2,356,551.61	3.00%	70,696.55	2,427,248.16	3.00%	72,817.44	2,500,065.61	3.00%	75,001.97	2,575,067.57	Salaries Increase Assumptions
284	628100	Billing Stock	-	9.40%	-	-	2.59%	-	-	2.59%	-	-	Compounded Expense Inflator
285	628200	Billing Envelopes	-	9.40%	-	-	2.59%	-	-	2.59%	-	-	Compounded Expense Inflator
286	628300	Billing Postage	-	9.40%	-	-	2.59%	-	-	2.59%	-	-	Compounded Expense Inflator
287	628400	Customer Service Printing	160,644.07	7.60%	12,208.95	172,853.02	2.59%	4,475.17	177,328.19	2.59%	4,591.04	181,919.23	Compounded Pro Forma Expense Inflatio
288	628500	Customer Freight/Courier Charges	97.78	9.40%	9.19	106.97	2.59%	2.77	109.74	2.59%	2.84	112.59	Compounded Expense Inflator
289	550200	Computer Repair and Maintenance	3.21	9.40%	0.30	3.52	2.59%	0.09	3.61	2.59%	0.09	3.70	Compounded Expense Inflator
290	550300	Computer Supplies	-	9.40%	-	-	2.59%	-	-	2.59%	-	-	Compounded Expense Inflator
291	550400	Internet Services	247.98	9.40%	23.31	271.29	2.59%	7.02	278.31	2.59%	7.21	285.52	Compounded Expense Inflator
292	550500	Website Development	-	9.40%	-	-	2.59%	-	-	2.59%	-	-	Compounded Expense Inflator
293	550600	Computer Licensing	159.56	9.40%	15.00	174.56	2.59%	4.52	179.08	2.59%	4.64	183.71	Compounded Expense Inflator
294	550700	Software	-	9.40%	-	-	2.59%	-	-	2.59%	-	-	Compounded Expense Inflator
295	550800	Computer Amort	-	9.40%	-	-	2.59%	-	-	2.59%	-	-	Compounded Expense Inflator
296	559900	Other Computer/IT Expenses	(32.09)	9.40%	(3.02)	(35.10)	2.59%	(0.91)	(36.01)	2.59%	(0.93)	(36.94)	Compounded Expense Inflator
297	581100	Office Supplies	5,802.28	9.40%	545.46	6,347.74	2.59%	164.34	6,512.08	2.59%	168.60	6,680.68	Compounded Expense Inflator
298	581200	Kitchen Supplies	994.89	9.40%	93.53	1,088.42	2.59%	28.18	1,116.60	2.59%	28.91	1,145.50	Compounded Expense Inflator
299	581300	Cleaning Supplies	585.84	9.40%	55.07	640.92	2.59%	16.59	657.51	2.59%	17.02	674.53	Compounded Expense Inflator
300	582100	Office Equipment	1,430.06	9.40%	134.44	1,564.50	2.59%	40.51	1,605.01	2.59%	41.55	1,646.56	Compounded Expense Inflator
301	582200	Office Equipment - Rent/Leased	562.58	9.40%	52.89	615.46	2.59%	15.93	631.40	2.59%	16.35	647.75	Compounded Expense Inflator
302	583100	Office Printing/Blueprints	5,133.90	9.40%	482.63	5,616.53	2.59%	145.41	5,761.94	2.59%	149.18	5,911.12	Compounded Expense Inflator
303	583200	Office Publications/Subscriptions	-	9.40%	-	-	2.59%	-	-	2.59%	-	-	Compounded Expense Inflator
304	583300	Artwork, Display and Banner	54.04	9.40%	5.08	59.12	2.59%	1.53	60.65	2.59%	1.57	62.22	Compounded Expense Inflator
305	583400	Office Shipping Charges/Postage/Courier	13,936.92	9.40%	1,310.19	15,247.11	2.59%	394.75	15,641.86	2.59%	404.97	16,046.83	Compounded Expense Inflator
306	583500	Office Duties and Brokerage	840.88	9.40%	79.05	919.93	2.59%	23.82	943.75	2.59%	24.43	968.19	Compounded Expense Inflator
307	611100	Rate Case Amortization	184,330.00	0.00%	-	184,330.00	0.00%	-	184,330.00	0.00%	-	184,330.00	No General Inflation
308	611200	Cost of Service Study	-	9.40%	-	-	2.59%	-	-	2.59%	-	-	Compounded Expense Inflator
309	611300	Depreciation Study	-	9.40%	-	-	2.59%	-	-	2.59%	-	-	Compounded Expense Inflator
310	611400	Regulatory Penalties and Fines	-	9.40%	-	-	2.59%	-	-	2.59%	-	-	Compounded Expense Inflator
311	612100	Regulatory Fees	1,502.40	9.40%	141.24	1,643.64	2.59%	42.55	1,686.19	2.59%	43.66	1,729.85	Compounded Expense Inflator
312	612200	Water Resource Conservation	-	9.40%	-	-	2.59%	-	-	2.59%	-	-	Compounded Expense Inflator
313	612300	Misc Rate Case Expense	-	9.40%	-	-	2.59%	-	-	2.59%	-	-	Compounded Expense Inflator
314	612900	Other Regulatory Expenses	53,066.51	9.40%	4,988.71	58,055.22	2.59%	1,503.05	59,558.27	2.59%	1,541.97	61,100.24	Compounded Expense Inflator
315	531001	401K Profit Sharing	60,104.31	7.60%	4,567.93	64,672.24	2.59%	1,674.37	66,346.61	2.59%	1,717.72	68,064.32	Compounded Pro Forma Expense Inflatio
316	531002	401K Match	58,733.54	7.60%	4,463.75	63,197.29	2.59%	1,636.18	64,833.47	2.59%	1,678.54	66,512.01	Compounded Pro Forma Expense Inflatio
317	531100	RRSP Match	-	7.60%	-	-	2.59%	-	-	2.59%	-	-	Compounded Pro Forma Expense Inflatio
318	531200	Canada Pension Plan	-	7.60%	-	-	2.59%	-	-	2.59%	-	-	Compounded Pro Forma Expense Inflatio
319	532001	Health Admin and Stop Loss	(0.00)	7.60%	(0.00)	(0.00)	2.59%	(0.00)	(0.00)	2.59%	(0.00)	(0.00)	Compounded Pro Forma Expense Inflatio
320	532002	Dental	14,788.49	7.60%	1,123.93	15,912.41	2.59%	411.97	16,324.39	2.59%	422.64	16,747.02	Compounded Pro Forma Expense Inflatio
321	532003	Medical	-	7.60%	-	-	2.59%	-	-	2.59%	-	-	Compounded Pro Forma Expense Inflatio
322	532004	Medical Service Plan (MSP)	-	7.60%	-	-	2.59%	-	-	2.59%	-	-	Compounded Pro Forma Expense Inflatio
323	532005	Employee Insurance Deductions	(0.00)	7.60%	(0.00)	(0.00)	2.59%	(0.00)	(0.00)	2.59%	(0.00)	(0.00)	Compounded Pro Forma Expense Inflatio

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
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Test Year: March 31, 2022
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Schedule 29 - CWSNC Uniform
Updated 09/19/2022

Line No.	Account	Description	Historical Test Year as adjusted	Inflator Rate	Rate Year 1 Adjustments	Rate Year 1 Revenue Requirement	Inflator Rate	Rate Year 2 Adjustments	Rate Year 2 Revenue Requirement	Inflator Rate	Rate Year 3 Adjustments	Rate Year 3 Revenue Requirement	Inflationary Assumption
324	532006	Health Insurance Claims	404,756.98	7.60%	30,761.53	435,518.51	2.59%	11,275.60	446,794.11	2.59%	11,567.52	458,361.63	Compounded Pro Forma Expense Inflatio
325	532007	Group Insurance	-	7.60%	-	-	2.59%	-	-	2.59%	-	-	Compounded Pro Forma Expense Inflatio
326	532008	Health Insurance	-	7.60%	-	-	2.59%	-	-	2.59%	-	-	Compounded Pro Forma Expense Inflatio
327	532009	Workers Compensation Insurance (WCB)	22,494.68	7.60%	1,709.60	24,204.27	2.59%	626.65	24,830.92	2.59%	642.87	25,473.80	Compounded Pro Forma Expense Inflatio
328	532010	Unemployment Insurance (EI)	-	7.60%	-	-	2.59%	-	-	2.59%	-	-	Compounded Pro Forma Expense Inflatio
329	532011	Union Dues	-	7.60%	-	-	2.59%	-	-	2.59%	-	-	Compounded Pro Forma Expense Inflatio
330	532012	Term Life Insurance	17,485.48	7.60%	1,328.90	18,814.38	2.59%	487.11	19,301.48	2.59%	499.72	19,801.20	Compounded Pro Forma Expense Inflatio
331	532013	Term Life Insurance Opt	0.00	7.60%	0.00	0.00	2.59%	0.00	0.00	2.59%	0.00	0.01	Compounded Pro Forma Expense Inflatio
332	532014	Depend Life Insurance Opt	-	7.60%	-	-	2.59%	-	-	2.59%	-	-	Compounded Pro Forma Expense Inflatio
333	532015	Vacation	-	7.60%	-	-	2.59%	-	-	2.59%	-	-	Compounded Pro Forma Expense Inflatio
334	532016	Education / Tuition	-	7.60%	-	-	2.59%	-	-	2.59%	-	-	Compounded Pro Forma Expense Inflatio
335	532017	Safety	-	7.60%	-	-	2.59%	-	-	2.59%	-	-	Compounded Pro Forma Expense Inflatio
336	532018	Longevity	-	7.60%	-	-	2.59%	-	-	2.59%	-	-	Compounded Pro Forma Expense Inflatio
337	532019	Incidental	-	7.60%	-	-	2.59%	-	-	2.59%	-	-	Compounded Pro Forma Expense Inflatio
338	532020	Holiday	-	7.60%	-	-	2.59%	-	-	2.59%	-	-	Compounded Pro Forma Expense Inflatio
339	532021	Jury Duty	-	7.60%	-	-	2.59%	-	-	2.59%	-	-	Compounded Pro Forma Expense Inflatio
340	532900	Other Employee Benefits	4,014.45	7.60%	305.10	4,319.55	2.59%	111.83	4,431.38	2.59%	114.73	4,546.11	Compounded Pro Forma Expense Inflatio
341	532999	Payroll Suspende	-	7.60%	-	-	2.59%	-	-	2.59%	-	-	Compounded Pro Forma Expense Inflatio
342	560100	General Liability Insurance	108,836.73	7.60%	8,271.59	117,108.32	2.59%	3,031.94	120,140.26	2.59%	3,110.44	123,250.70	Compounded Pro Forma Expense Inflatio
343	560200	Property Insurance	167,408.82	7.17%	12,005.14	179,413.96	10.74%	19,274.58	198,688.54	9.32%	18,518.24	217,206.78	Property Insurance Expense Inflation
344	560300	Vehicle Insurance	42,038.96	7.17%	3,014.68	45,053.64	10.74%	4,840.15	49,893.78	9.32%	4,650.22	54,544.00	Property Insurance Expense Inflation
345	560400	Uninsured Losses	37,773.53	7.60%	2,870.79	40,644.32	2.59%	1,052.28	41,696.60	2.59%	1,079.53	42,776.13	Compounded Pro Forma Expense Inflatio
346	560500	Other Insurance	70,158.56	7.60%	5,332.05	75,490.61	2.59%	1,954.46	77,445.06	2.59%	2,005.06	79,450.12	Compounded Pro Forma Expense Inflatio
347	571100	Building Rent	211,794.00	-	16,096.34	227,890.34	-	5,469.37	233,359.71	-	5,600.63	238,960.35	Manual Calculation
348	584100	Office Electric	1,119.06	9.40%	105.20	1,224.26	2.59%	31.70	1,255.96	2.59%	32.52	1,288.47	Compounded Expense Inflator
349	584200	Office Gas/Heat	402.27	9.40%	37.82	440.09	2.59%	11.39	451.48	2.59%	11.69	463.17	Compounded Expense Inflator
350	584300	Office Water	13,389.34	9.40%	1,258.71	14,648.05	2.59%	379.24	15,027.29	2.59%	389.06	15,416.35	Compounded Expense Inflator
351	584900	Office Other Utilities	95.87	9.40%	9.01	104.88	2.59%	2.72	107.60	2.59%	2.79	110.38	Compounded Expense Inflator
352	585100	Office Garbage Disposal/Removal	35,578.49	9.40%	3,344.69	38,923.18	2.59%	1,007.72	39,930.90	2.59%	1,033.81	40,964.71	Compounded Expense Inflator
353	585200	Office Landscape/Mowing	10,557.87	9.40%	992.53	11,550.40	2.59%	299.04	11,849.44	2.59%	306.78	12,156.22	Compounded Expense Inflator
354	585300	Office Snow Removal	-	9.40%	-	-	2.59%	-	-	2.59%	-	-	Compounded Expense Inflator
355	585400	Office Security/Alarm System	1,098.60	9.40%	103.28	1,201.88	2.59%	31.12	1,233.00	2.59%	31.92	1,264.92	Compounded Expense Inflator
356	585500	Office Cleaning Services	1,214.68	9.40%	114.19	1,328.87	2.59%	34.40	1,363.28	2.59%	35.30	1,398.57	Compounded Expense Inflator
357	585900	Other Office Maintenance	2,214.12	9.40%	208.15	2,422.26	2.59%	62.71	2,484.98	2.59%	64.34	2,549.31	Compounded Expense Inflator
358	586100	Landline/Telephone/Fax	19,268.40	9.40%	1,811.40	21,079.80	2.59%	545.76	21,625.55	2.59%	559.89	22,185.44	Compounded Expense Inflator
359	586200	Cellular/Mobile Phones	14,653.03	9.40%	1,377.51	16,030.54	2.59%	415.03	16,445.57	2.59%	425.78	16,871.35	Compounded Expense Inflator
360	587100	Holiday Events/Picnics	-	9.40%	-	-	2.59%	-	-	2.59%	-	-	Compounded Expense Inflator
361	587200	Meals and Entertainment	-	9.40%	-	-	2.59%	-	-	2.59%	-	-	Compounded Expense Inflator
362	587300	Meals and Entertainment - 50% Tax Deductible	-	9.40%	-	-	2.59%	-	-	2.59%	-	-	Compounded Expense Inflator
363	587400	Meals and Entertainment - Non Deductible	-	9.40%	-	-	2.59%	-	-	2.59%	-	-	Compounded Expense Inflator
364	587500	Answering Service	3,745.55	9.40%	352.11	4,097.67	2.59%	106.09	4,203.75	2.59%	108.84	4,312.59	Compounded Expense Inflator
365	587900	Other Office Expenses	2,112.48	9.40%	198.59	2,311.07	2.59%	59.83	2,370.90	2.59%	61.38	2,432.28	Compounded Expense Inflator
366	511003	Purchased Services-Gas	1,407.27	9.40%	132.30	1,539.57	2.59%	39.86	1,579.43	2.59%	40.89	1,620.32	Compounded Expense Inflator
367	621100	Advertising	-	9.40%	-	-	2.59%	-	-	2.59%	-	-	Compounded Expense Inflator
368	621300	Trade Shows	-	9.40%	-	-	2.59%	-	-	2.59%	-	-	Compounded Expense Inflator
369	621400	Promotions/Corporate Sponsor	-	9.40%	-	-	2.59%	-	-	2.59%	-	-	Compounded Expense Inflator
370	621500	Promotions - 50%	-	9.40%	-	-	2.59%	-	-	2.59%	-	-	Compounded Expense Inflator
371	622100	Bank Service Charges	500.79	9.40%	47.08	547.87	2.59%	14.18	562.06	2.59%	14.55	576.61	Compounded Expense Inflator
372	622200	Bank Charges - Merchant	-	9.40%	-	-	2.59%	-	-	2.59%	-	-	Compounded Expense Inflator
373	622300	Letter of Credit Fees	-	9.40%	-	-	2.59%	-	-	2.59%	-	-	Compounded Expense Inflator
374	623100	Donations for Registered Charities	-	9.40%	-	-	2.59%	-	-	2.59%	-	-	Compounded Expense Inflator
375	623200	Donations for Non-Registered Charities	-	9.40%	-	-	2.59%	-	-	2.59%	-	-	Compounded Expense Inflator
376	624100	License Fees	1,258.75	9.40%	118.33	1,377.09	2.59%	35.65	1,412.74	2.59%	36.58	1,449.32	Compounded Expense Inflator
377	624200	Franchise Fee	-	9.40%	-	-	2.59%	-	-	2.59%	-	-	Compounded Expense Inflator
378	624300	5% FF on Usage	-	9.40%	-	-	2.59%	-	-	2.59%	-	-	Compounded Expense Inflator
379	625100	Penalties and Fines	-	9.40%	-	-	2.59%	-	-	2.59%	-	-	Compounded Expense Inflator
380	625200	Penalties and Fines to Government (Non-Deductible)	-	9.40%	-	-	2.59%	-	-	2.59%	-	-	Compounded Expense Inflator

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule 29 - CWSNC Uniform
Updated 09/19/2022

Line No.	Account	Description	Historical Test Year as adjusted	Inflator Rate	Rate Year 1 Adjustments	Rate Year 1 Revenue Requirement	Inflator Rate	Rate Year 2 Adjustments	Rate Year 2 Revenue Requirement	Inflator Rate	Rate Year 3 Adjustments	Rate Year 3 Revenue Requirement	Inflationary Assumption
381	625300	Late Fees	-	9.40%	-	-	2.59%	-	-	2.59%	-	-	Compounded Expense Inflator
382	626100	Education and Training	5,755.03	9.40%	541.02	6,296.06	2.59%	163.01	6,459.06	2.59%	167.23	6,626.29	Compounded Expense Inflator
383	629100	Memberships and Dues	15,093.46	9.40%	1,418.92	16,512.37	2.59%	427.51	16,939.88	2.59%	438.57	17,378.46	Compounded Expense Inflator
384	629200	Payroll Admin Fee	-	9.40%	-	-	2.59%	-	-	2.59%	-	-	Compounded Expense Inflator
385	629300	Director and Board Fees	-	9.40%	-	-	2.59%	-	-	2.59%	-	-	Compounded Expense Inflator
386	629400	Corporate Governance	-	9.40%	-	-	2.59%	-	-	2.59%	-	-	Compounded Expense Inflator
387	629500	Credit Card Expense Clearing	(4,374.15)	9.40%	(411.21)	(4,785.36)	2.59%	(123.89)	(4,909.25)	2.59%	(127.10)	(5,036.35)	Compounded Expense Inflator
388	629600	Credit Card/Cash Expense - Unallocated	-	9.40%	-	-	2.59%	-	-	2.59%	-	-	Compounded Expense Inflator
389	629700	Cost Recovery	-	9.40%	-	-	2.59%	-	-	2.59%	-	-	Compounded Expense Inflator
390	629800	Discount/Rebate Taken	-	9.40%	-	-	2.59%	-	-	2.59%	-	-	Compounded Expense Inflator
391	629850	Community Service	-	9.40%	-	-	2.59%	-	-	2.59%	-	-	Compounded Expense Inflator
392	629900	Other Misc Expense	93,081.31	9.40%	8,750.45	101,831.77	2.59%	2,636.43	104,468.20	2.59%	2,704.69	107,172.88	Compounded Expense Inflator
393	591000	Accommodation/Hotel/Lodging	3,813.22	9.40%	358.48	4,171.70	2.59%	108.01	4,279.70	2.59%	110.80	4,390.51	Compounded Expense Inflator
394	592000	Airfare	111.82	9.40%	10.51	122.34	2.59%	3.17	125.50	2.59%	3.25	128.75	Compounded Expense Inflator
395	593000	Transportation excl. Airfare	838.48	9.40%	78.82	917.31	2.59%	23.75	941.05	2.59%	24.36	965.42	Compounded Expense Inflator
396	594000	Travel - Meals and Entertainment	(40.11)	9.40%	(3.77)	(43.88)	2.59%	(1.14)	(45.02)	2.59%	(1.17)	(46.18)	Compounded Expense Inflator
397	595000	Travel - Meals and Entertainment - 50% Tax Deductible	2,024.12	9.40%	190.29	2,214.41	2.59%	57.33	2,271.74	2.59%	58.82	2,330.55	Compounded Expense Inflator
398	596000	Travel - Meals and Entertainment - Non Deductible	-	9.40%	-	-	2.59%	-	-	2.59%	-	-	Compounded Expense Inflator
399	599900	Other Travel	10,703.96	9.40%	1,006.27	11,710.22	2.59%	303.18	12,013.40	2.59%	311.03	12,324.43	Compounded Expense Inflator
400	0	Federal Protected EDIT Amortization	(21,898.00)	0.00%	-	(21,898.00)	0.00%	-	(21,898.00)	0.00%	-	(21,898.00)	No General Inflation
401	630002	Commission Ordered Adjustments	-	9.40%	-	-	2.59%	-	-	2.59%	-	-	Compounded Expense Inflator
402	691000	Corporate Allocation	1,387,388.09	7.60%	105,441.49	1,492,829.58	2.59%	38,649.44	1,531,479.03	2.59%	39,650.08	1,571,129.10	Compounded Pro Forma Expense Inflation
403	692000	Regional Allocation	190,600.18	7.60%	14,485.61	205,085.79	2.59%	5,309.68	210,395.48	2.59%	5,447.15	215,842.63	Compounded Pro Forma Expense Inflation
404	693000	Contract Shared Services Allocation	-	9.40%	-	-	2.59%	-	-	2.59%	-	-	Compounded Expense Inflator
405	694000	Allocation Markup	-	9.40%	-	-	2.59%	-	-	2.59%	-	-	Compounded Expense Inflator
406	811003	Standby/Letter of Credit Fees	22,344.33	9.30%	2,078.02	24,422.35	2.40%	586.14	25,008.49	2.40%	600.20	25,608.69	Expense Inflation
407	816004	Interest - Other	20,769.67	0.09%	19.17	20,788.84	0.18%	38.37	20,827.21	0.18%	38.44	20,865.65	Growth Inflation
408	641100	FICA	176,367.75	3.00%	5,291.03	181,658.78	3.00%	5,449.76	187,108.54	3.00%	5,613.26	192,721.80	Salaries Increase Assumptions
409	641200	Payroll Tax	-	3.00%	-	-	3.00%	-	-	3.00%	-	-	Salaries Increase Assumptions
410	641300	Employer Health Tax	-	3.00%	-	-	3.00%	-	-	3.00%	-	-	Salaries Increase Assumptions
411	642100	Federal Unemployment Tax	1,271.43	3.00%	38.14	1,309.57	3.00%	39.29	1,348.86	3.00%	40.47	1,389.32	Salaries Increase Assumptions
412	642200	State Unemployment Tax	3,970.79	3.00%	119.12	4,089.91	3.00%	122.70	4,212.61	3.00%	126.38	4,338.99	Salaries Increase Assumptions
413	642300	Other Payroll Taxes	-	3.00%	-	-	3.00%	-	-	3.00%	-	-	Salaries Increase Assumptions
414	643100	Franchise Taxes	54,258.80	9.40%	5,100.80	59,359.60	2.59%	1,536.82	60,896.42	2.59%	1,576.61	62,473.03	Compounded Expense Inflator
415	643200	Gross Receipts Taxes	-	9.40%	-	-	2.59%	-	-	2.59%	-	-	Compounded Expense Inflator
416	643300	Personal Property Taxes	70,882.28	7.17%	5,083.07	75,965.35	10.74%	8,161.02	84,126.37	9.32%	7,840.78	91,967.14	Real Estate Taxes
417	643400	Real Estate Taxes	34,746.97	7.17%	2,491.76	37,238.73	10.74%	4,000.58	41,239.31	9.32%	3,843.60	45,082.91	Real Estate Taxes
418	643500	Sales And Use Taxes	-	9.40%	-	-	2.59%	-	-	2.59%	-	-	Compounded Expense Inflator
419	643600	Utility/Commission Taxes	-	-	27,759.51	27,759.51	-	2,441.49	30,201.00	-	2,045.39	32,246.39	Manual Calculation
420	643700	Other General Taxes	(6,086.37)	9.40%	(572.17)	(6,658.54)	2.59%	(172.39)	(6,830.93)	2.59%	(176.85)	(7,007.78)	Compounded Expense Inflator

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule 29
Updated 09/19/2022

Purpose:

To identify and include in the revenue requirement expense increases through the WSIP period.

Method:

Identify which inflator is the most reasonable and apply that expense increase to each of the periods through the WSIP period. Accounts that are marked as no general inflation have a manual build addressing the level of expenses through the WSIP period.

Update: Used most recent CPI data through August 2022 and developed a new CPI assumption for expense categories that are already receiving a pro-forma adjustment in order to not adjust certain expenses twice for the same period.

Inflation Assumptions	Water WSIP Year 1	Water WSIP Year 2	Water WSIP Year 3	Sewer WSIP Year 1	Sewer WSIP Year 2	Sewer WSIP Year 3
Growth Inflation	0.46%	0.92%	0.92%	0.09%	0.18%	0.18%
Expense Inflation	9.30%	2.40%	2.40%	9.30%	2.40%	2.40%
Compounded Expense Inflator	9.80%	3.34%	3.34%	9.40%	2.59%	2.59%

Note: Expense inflation is based on projected CPI, further details can be found in Witness Drennan's testimony. Growth inflation is based on assumed ERC growth through the WSIP period as reflected in Schedule E. Expenses that are expected to be sensitive to both expense inflation as well as system usage will have a compound inflation applied.

Growth Inflation	0.00%	0.92%	0.92%	0.00%	0.18%	0.18%
Pro Forma Expense Inflation	7.60%	2.40%	2.40%	7.60%	2.40%	2.40%
Compounded Pro Forma Expense Inflation	7.60%	3.34%	3.34%	7.60%	2.59%	2.59%

Note: Expense inflation is based on projected CPI, further details can be found in Witness Drennan's testimony. Growth inflation is based on assumed ERC growth through the WSIP period as reflected in Schedule E. Expenses that are expected to be sensitive to both expense inflation as well as system usage will have a compound inflation applied. This expense inflator was developed for expenses that have pro-forma adjustments to account for CPI assumptions from July-22 through the WSIP periods.

Salaries Increase Assumptions	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
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Note: WSIP period salary increase assumptions are based on market demands and are set based on internal corporate direction.

Real Estate Taxes	7.24%	6.60%	5.78%	7.17%	10.74%	9.32%
Property Insurance Expense Inflation	7.24%	6.60%	5.78%	7.17%	10.74%	9.32%

Note: Real Estate Taxes and Property Insurance Expense inflators are based on the growth in gross plant in service between WSIP peric

No General Inflation	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
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Note: Certain accounts do not have a generic growth inflator and instead are either expected to remain flat, have a manual workpaper calculation associated with them, or in the case of purchased water and sewer treatment expenses will be accounted for through that regulatory mechanism.

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule 29 - BF FH TC
Updated 09/19/2022

Line No.	Account	Description	Historical Test Year as adjusted	Inflator Rate	Rate Year 1 Adjustments	Rate Year 1 Revenue Requirement	Inflator Rate	Rate Year 2 Adjustments	Rate Year 2 Revenue Requirement	Inflator Rate	Rate Year 3 Adjustments	Rate Year 3 Revenue Requirement	Inflationary Assumption
Water													
		Bradfield Farms - Fairfield Harbour - Treasure Cove											
1	517001	Utility-Electric Power	70,431.67	9.76%	6,874.81	77,306.48	3.26%	2,523.07	79,829.56	3.26%	2,605.42	82,434.98	Compounded Expense Inflator
2	511001	Purchased Services-Water	608.77	0.00%	-	608.77	0.00%	-	608.77	0.00%	-	608.77	No General Inflation
3	512001	Shop Supplies and Tools	2,446.61	9.76%	238.81	2,685.42	3.26%	87.64	2,773.07	3.26%	90.51	2,863.57	Compounded Expense Inflator
4	512002	Repairs and Maintenance	142,999.52	9.76%	13,958.13	156,957.65	3.26%	5,122.67	162,080.33	3.26%	5,289.86	167,370.19	Compounded Expense Inflator
5	512003	Main Breaks	415.47	9.76%	40.55	456.02	3.26%	14.88	470.91	3.26%	15.37	486.28	Compounded Expense Inflator
6	512004	Traps Repair	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
7	512005	Valve Repair	16.69	9.76%	1.63	18.32	3.26%	0.60	18.92	3.26%	0.62	19.53	Compounded Expense Inflator
8	512006	Manhole Maint	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
9	512007	Major Repairs	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
10	512008	Maintenance Electric Equip Repair	1,868.09	9.76%	182.34	2,050.43	3.26%	66.92	2,117.35	3.26%	69.10	2,186.46	Compounded Expense Inflator
11	512009	Permits	4,322.94	9.76%	421.96	4,744.90	3.26%	154.86	4,899.76	3.26%	159.91	5,059.68	Compounded Expense Inflator
12	512010	Sewer Rodding	(21,799.62)	9.76%	(2,127.85)	(23,927.47)	3.26%	(780.93)	(24,708.40)	3.26%	(806.42)	(25,514.82)	Compounded Expense Inflator
13	512011	Sewer Sludge Hauling	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
14	512013	Excavation Restoration	107.62	9.76%	10.50	118.12	3.26%	3.86	121.98	3.26%	3.98	125.96	Compounded Expense Inflator
15	512014	Communication Expense	3,453.98	9.76%	337.14	3,791.12	3.26%	123.73	3,914.85	3.26%	127.77	4,042.62	Compounded Expense Inflator
16	512015	Equipment Rental	257.62	9.76%	25.15	282.77	3.26%	9.23	291.99	3.26%	9.53	301.52	Compounded Expense Inflator
17	512016	Uniforms	2,034.77	9.76%	198.61	2,233.38	3.26%	72.89	2,306.27	3.26%	75.27	2,381.55	Compounded Expense Inflator
18	512017	Weather/Hurricane/Fuel/Snow removal	675.75	9.76%	65.96	741.71	3.26%	24.21	765.92	3.26%	25.00	790.91	Compounded Expense Inflator
19	512018	Safety Supplies/Expense	540.04	9.76%	52.71	592.75	3.26%	19.35	612.10	3.26%	19.98	632.07	Compounded Expense Inflator
20	512019	Moving Expense	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
21	512020	Service Claims	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
22	512021	Landscaping	18,677.48	9.76%	1,823.10	20,500.58	3.26%	669.08	21,169.67	3.26%	690.92	21,860.59	Compounded Expense Inflator
23	512022	Other Contracted Workers	81.75	9.76%	7.98	89.73	3.26%	2.93	92.66	3.26%	3.02	95.68	Compounded Expense Inflator
24	512023	Pump Station R&M	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
25	512024	Project Labor Hours (COGS)	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
26	512025	Vehicle Labor Hours (COGS)	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
27	512900	Other Plant and System Maintenance	12,193.77	9.76%	1,190.23	13,383.99	3.26%	436.82	13,820.81	3.26%	451.07	14,271.89	Compounded Expense Inflator
28	513002	Meter Supplies	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
29	513003	Pipe, Plate, Gasket	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
30	513004	Misc Bearing	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
31	513005	Lubricant, Gases	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
32	513006	Misc Gge Glass, Parts	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
33	513007	Rig Equip	26.81	9.76%	2.62	29.43	3.26%	0.96	30.39	3.26%	0.99	31.38	Compounded Expense Inflator
34	513008	Electrical Equip	185.93	9.76%	18.15	204.08	3.26%	6.66	210.74	3.26%	6.88	217.62	Compounded Expense Inflator
35	513009	Lighting Supplies	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
36	513010	Plant Air System	33.75	9.76%	3.29	37.04	3.26%	1.21	38.25	3.26%	1.25	39.50	Compounded Expense Inflator
37	513011	Valves and Traps	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
38	513012	Duty and Brokerage	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
39	513899	Materials and Supplies Write-off	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
40	513900	Other Materials and Supplies	12,450.54	9.76%	1,215.29	13,665.83	3.26%	446.02	14,111.84	3.26%	460.57	14,572.42	Compounded Expense Inflator
41	512012	Deferred Maintenance Expense	14,210.97	9.76%	7,738.00	21,948.97	3.26%	(4,149.51)	17,799.46	3.26%	(2,963.93)	14,835.53	Compounded Expense Inflator
42	515001	Laboratory Testing	20,527.83	7.60%	1,560.12	22,087.95	3.26%	720.89	22,808.84	3.26%	744.42	23,553.25	Compounded Pro Forma Expense Inflation
43	515002	Test - Water/Sewer	(10,788.11)	7.60%	(819.90)	(11,608.01)	3.26%	(378.85)	(11,986.86)	3.26%	(391.22)	(12,378.08)	Compounded Pro Forma Expense Inflation
44	515003	Test - Equipment/Chemical	428.97	7.60%	32.60	461.57	3.26%	15.06	476.64	3.26%	15.56	492.19	Compounded Pro Forma Expense Inflation
45	515004	Test - Safe Drinking Water Act	27.22	7.60%	2.07	29.29	3.26%	0.96	30.24	3.26%	0.99	31.23	Compounded Pro Forma Expense Inflation
46	516001	Service - Meter Reading	47,601.97	9.76%	4,646.41	52,248.38	3.26%	1,705.25	53,953.63	3.26%	1,760.90	55,714.53	Compounded Expense Inflator
47	514001	Chlorine	18,277.07	7.60%	1,389.06	19,666.13	3.26%	641.85	20,307.98	3.26%	662.80	20,970.77	Compounded Pro Forma Expense Inflation
48	514002	Odor Control Chemicals	-	7.60%	-	-	3.26%	-	-	3.26%	-	-	Compounded Pro Forma Expense Inflation
49	514900	Other Chemicals	67,954.84	7.60%	5,164.57	73,119.41	3.26%	2,386.42	75,505.83	3.26%	2,464.31	77,970.13	Compounded Pro Forma Expense Inflation
50	601000	Vehicle Leasing	877.29	9.76%	85.63	962.92	3.26%	31.43	994.35	3.26%	32.45	1,026.81	Compounded Expense Inflator
51	602000	Vehicle Fuel	24,731.64	9.76%	2,414.05	27,145.69	3.26%	885.96	28,031.65	3.26%	914.88	28,946.52	Compounded Expense Inflator
52	603000	Vehicle Repairs and Maintenance	11,439.09	9.76%	1,116.57	12,555.65	3.26%	409.78	12,965.43	3.26%	423.16	13,388.59	Compounded Expense Inflator
53	604000	Vehicle Registration/Licensing Fees	40.26	9.76%	3.93	44.19	3.26%	1.44	45.63	3.26%	1.49	47.12	Compounded Expense Inflator
54	605000	Vehicle - Employee Mileage Claim	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule 29 - BF FH TC
Updated 09/19/2022

Line No.	Account	Description	Historical Test Year as adjusted	Inflator Rate	Rate Year 1 Adjustments	Rate Year 1 Revenue Requirement	Inflator Rate	Rate Year 2 Adjustments	Rate Year 2 Revenue Requirement	Inflator Rate	Rate Year 3 Adjustments	Rate Year 3 Revenue Requirement	Inflationary Assumption
55	606000	Project Vehicle Hours	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
56	607000	Vehicle Charged to Projects	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
57	609000	Vehicle - Other Costs	1,483.97	9.76%	144.85	1,628.82	3.26%	53.16	1,681.98	3.26%	54.90	1,736.87	Compounded Expense Inflator
58	522001	Capitalized Time	(65,538.00)	3.00%	(1,966.14)	(67,504.14)	3.00%	(2,025.12)	(69,529.26)	3.00%	(2,085.88)	(71,615.14)	Salaries Increase Assumptions
59	540100	Consulting	1,269.53	9.76%	123.92	1,393.45	3.26%	45.48	1,438.93	3.26%	46.96	1,485.89	Compounded Expense Inflator
60	540200	Accounting and Audit	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
61	540300	Recruitment	21.58	9.76%	2.11	23.68	3.26%	0.77	24.45	3.26%	0.80	25.25	Compounded Expense Inflator
62	540400	Legal	208.17	9.76%	20.32	228.49	3.26%	7.46	235.95	3.26%	7.70	243.65	Compounded Expense Inflator
63	540500	Payroll	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
64	540600	Tax	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
65	540700	Engineering	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
66	540800	Temporary Labor	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
67	540900	Police	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
68	541000	Environmental	23,473.01	9.76%	2,291.19	25,764.20	3.26%	840.87	26,605.08	3.26%	868.32	27,473.40	Compounded Expense Inflator
69	541100	Management Fee	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
70	541200	Contractor Outside Services	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
71	541300	Employee Finder Fees	57.64	9.76%	5.63	63.27	3.26%	2.06	65.33	3.26%	2.13	67.46	Compounded Expense Inflator
72	549000	Other Outside Services	(295.16)	9.76%	(28.81)	(323.97)	3.26%	(10.57)	(334.54)	3.26%	(10.92)	(345.46)	Compounded Expense Inflator
73	0	Salaries & Wages - General	474,573.47	3.00%	14,237.20	488,810.68	3.00%	14,664.32	503,475.00	3.00%	15,104.25	518,579.25	Salaries Increase Assumptions
74	628100	Billing Stock	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
75	628200	Billing Envelopes	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
76	628300	Billing Postage	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
77	628400	Customer Service Printing	33,408.96	7.60%	2,539.08	35,948.04	3.26%	1,173.25	37,121.29	3.26%	1,211.54	38,332.82	Compounded Pro Forma Expense Inflation
78	628500	Customer Freight/Courier Charges	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
79	550200	Computer Repair and Maintenance	0.75	9.76%	0.07	0.82	3.26%	0.03	0.85	3.26%	0.03	0.88	Compounded Expense Inflator
80	550300	Computer Supplies	(856.92)	9.76%	(83.64)	(940.57)	3.26%	(30.70)	(971.26)	3.26%	(31.70)	(1,002.96)	Compounded Expense Inflator
81	550400	Internet Services	57.25	9.76%	5.59	62.84	3.26%	2.05	64.89	3.26%	2.12	67.01	Compounded Expense Inflator
82	550500	Website Development	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
83	550600	Computer Licensing	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
84	550700	Software	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
85	550800	Computer Amort	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
86	559900	Other Computer/IT Expenses	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
87	581100	Office Supplies	740.13	9.76%	72.24	812.38	3.26%	26.51	838.89	3.26%	27.38	866.27	Compounded Expense Inflator
88	581200	Kitchen Supplies	214.19	9.76%	20.91	235.09	3.26%	7.67	242.77	3.26%	7.92	250.69	Compounded Expense Inflator
89	581300	Cleaning Supplies	109.62	9.76%	10.70	120.32	3.26%	3.93	124.24	3.26%	4.05	128.30	Compounded Expense Inflator
90	582100	Office Equipment	154.92	9.76%	15.12	170.04	3.26%	5.55	175.59	3.26%	5.73	181.32	Compounded Expense Inflator
91	582200	Office Equipment - Rent/Leased	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
92	583100	Office Printing/Blueprints	87.74	9.76%	8.56	96.31	3.26%	3.14	99.45	3.26%	3.25	102.70	Compounded Expense Inflator
93	583200	Office Publications/Subscriptions	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
94	583300	Artwork, Display and Banner	12.48	9.76%	1.22	13.70	3.26%	0.45	14.14	3.26%	0.46	14.60	Compounded Expense Inflator
95	583400	Office Shipping Charges/Postage/Courier	2,151.90	9.76%	210.05	2,361.95	3.26%	77.09	2,439.04	3.26%	79.60	2,518.64	Compounded Expense Inflator
96	583500	Office Duties and Brokerage	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
97	611100	Rate Case Amortization	37,121.00	0.00%	-	37,121.00	0.00%	-	37,121.00	0.00%	-	37,121.00	No General Inflation
98	611200	Cost of Service Study	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
99	611300	Depreciation Study	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
100	611400	Regulatory Penalties and Fines	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
101	612100	Regulatory Fees	348.69	9.76%	34.04	382.73	3.26%	12.49	395.22	3.26%	12.90	408.12	Compounded Expense Inflator
102	612200	Water Resource Conservation	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
103	612300	Misc Rate Case Expense	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
104	612900	Other Regulatory Expenses	11,998.23	9.76%	1,171.14	13,169.37	3.26%	429.81	13,599.18	3.26%	443.84	14,043.02	Compounded Expense Inflator
105	531001	401K Profit Sharing	12,104.09	7.60%	919.91	13,024.00	3.26%	425.07	13,449.06	3.26%	438.94	13,888.00	Compounded Pro Forma Expense Inflation
106	531002	401K Match	11,828.04	7.60%	898.93	12,726.97	3.26%	415.37	13,142.34	3.26%	428.93	13,571.27	Compounded Pro Forma Expense Inflation
107	531100	RRSP Match	-	7.60%	-	-	3.26%	-	-	3.26%	-	-	Compounded Pro Forma Expense Inflation
108	531200	Canada Pension Plan	-	7.60%	-	-	3.26%	-	-	3.26%	-	-	Compounded Pro Forma Expense Inflation
109	532001	Health Admin and Stop Loss	(0.00)	7.60%	(0.00)	(0.00)	3.26%	(0.00)	(0.00)	3.26%	(0.00)	(0.00)	Compounded Pro Forma Expense Inflation

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
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Schedule 29 - BF FH TC
Updated 09/19/2022

Line No.	Account	Description	Historical Test Year as adjusted	Inflator Rate	Rate Year 1 Adjustments	Rate Year 1 Revenue Requirement	Inflator Rate	Rate Year 2 Adjustments	Rate Year 2 Revenue Requirement	Inflator Rate	Rate Year 3 Adjustments	Rate Year 3 Revenue Requirement	Inflationary Assumption
110	532002	Dental	2,978.18	7.60%	226.34	3,204.52	3.26%	104.59	3,309.11	3.26%	108.00	3,417.11	Compounded Pro Forma Expense Inflation
111	532003	Medical	-	7.60%	-	-	3.26%	-	-	3.26%	-	-	Compounded Pro Forma Expense Inflation
112	532004	Medical Service Plan (MSP)	-	7.60%	-	-	3.26%	-	-	3.26%	-	-	Compounded Pro Forma Expense Inflation
113	532005	Employee Insurance Deductions	(0.00)	7.60%	(0.00)	(0.00)	3.26%	(0.00)	(0.00)	3.26%	(0.00)	(0.00)	Compounded Pro Forma Expense Inflation
114	532006	Health Insurance Claims	81,511.87	7.60%	6,194.90	87,706.77	3.26%	2,862.51	90,569.29	3.26%	2,955.94	93,525.22	Compounded Pro Forma Expense Inflation
115	532007	Group Insurance	-	7.60%	-	-	3.26%	-	-	3.26%	-	-	Compounded Pro Forma Expense Inflation
116	532008	Health Insurance	-	7.60%	-	-	3.26%	-	-	3.26%	-	-	Compounded Pro Forma Expense Inflation
117	532009	Workers Compensation Insurance (WCB)	4,530.09	7.60%	344.29	4,874.38	3.26%	159.09	5,033.46	3.26%	164.28	5,197.74	Compounded Pro Forma Expense Inflation
118	532010	Unemployment Insurance (EI)	-	7.60%	-	-	3.26%	-	-	3.26%	-	-	Compounded Pro Forma Expense Inflation
119	532011	Union Dues	-	7.60%	-	-	3.26%	-	-	3.26%	-	-	Compounded Pro Forma Expense Inflation
120	532012	Term Life Insurance	3,521.31	7.60%	267.62	3,788.93	3.26%	123.66	3,912.59	3.26%	127.70	4,040.29	Compounded Pro Forma Expense Inflation
121	532013	Term Life Insurance Opt	0.00	7.60%	0.00	0.00	3.26%	0.00	0.00	3.26%	0.00	0.00	Compounded Pro Forma Expense Inflation
122	532014	Depend Life Insurance Opt	-	7.60%	-	-	3.26%	-	-	3.26%	-	-	Compounded Pro Forma Expense Inflation
123	532015	Vacation	-	7.60%	-	-	3.26%	-	-	3.26%	-	-	Compounded Pro Forma Expense Inflation
124	532016	Education / Tuition	-	7.60%	-	-	3.26%	-	-	3.26%	-	-	Compounded Pro Forma Expense Inflation
125	532017	Safety	-	7.60%	-	-	3.26%	-	-	3.26%	-	-	Compounded Pro Forma Expense Inflation
126	532018	Longevity	-	7.60%	-	-	3.26%	-	-	3.26%	-	-	Compounded Pro Forma Expense Inflation
127	532019	Incidental	-	7.60%	-	-	3.26%	-	-	3.26%	-	-	Compounded Pro Forma Expense Inflation
128	532020	Holiday	-	7.60%	-	-	3.26%	-	-	3.26%	-	-	Compounded Pro Forma Expense Inflation
129	532021	Jury Duty	-	7.60%	-	-	3.26%	-	-	3.26%	-	-	Compounded Pro Forma Expense Inflation
130	532900	Other Employee Benefits	808.45	7.60%	61.44	869.89	3.26%	28.39	898.28	3.26%	29.32	927.60	Compounded Pro Forma Expense Inflation
131	532999	Payroll Suspende	-	7.60%	-	-	3.26%	-	-	3.26%	-	-	Compounded Pro Forma Expense Inflation
132	560100	General Liability Insurance	21,918.05	7.60%	1,665.77	23,583.82	3.26%	769.71	24,353.54	3.26%	794.83	25,148.37	Compounded Pro Forma Expense Inflation
133	560200	Property Insurance	33,713.58	26.49%	8,931.84	42,645.42	14.96%	6,377.75	49,023.17	8.59%	4,210.87	53,234.04	Property Insurance Expense Inflation
134	560300	Vehicle Insurance	8,466.00	26.49%	2,242.93	10,708.93	14.96%	1,601.55	12,310.48	8.59%	1,057.41	13,367.89	Property Insurance Expense Inflation
135	560400	Uninsured Losses	7,607.01	7.60%	578.13	8,185.14	3.26%	267.14	8,452.29	3.26%	275.86	8,728.14	Compounded Pro Forma Expense Inflation
136	560500	Other Insurance	14,128.86	7.60%	1,073.79	15,202.66	3.26%	496.17	15,698.83	3.26%	512.37	16,211.20	Compounded Pro Forma Expense Inflation
137	571100	Building Rent	25,446.00	-	1,933.90	27,379.90	-	893.61	28,273.50	-	922.77	29,196.27	Manual Calculation
138	584100	Office Electric	1,129.36	9.76%	110.24	1,239.60	3.26%	40.46	1,280.06	3.26%	41.78	1,321.83	Compounded Expense Inflator
139	584200	Office Gas/Heat	19.91	9.76%	1.94	21.85	3.26%	0.71	22.57	3.26%	0.74	23.30	Compounded Expense Inflator
140	584300	Office Water	5.81	9.76%	0.57	6.37	3.26%	0.21	6.58	3.26%	0.21	6.80	Compounded Expense Inflator
141	584900	Office Other Utilities	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
142	585100	Office Garbage Disposal/Removal	10,816.76	9.76%	1,055.82	11,872.58	3.26%	387.49	12,260.07	3.26%	400.14	12,660.20	Compounded Expense Inflator
143	585200	Office Landscape/Mowing	42.47	9.76%	4.15	46.61	3.26%	1.52	48.14	3.26%	1.57	49.71	Compounded Expense Inflator
144	585300	Office Snow Removal	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
145	585400	Office Security/Alarm System	25.94	9.76%	2.53	28.47	3.26%	0.93	29.40	3.26%	0.96	30.36	Compounded Expense Inflator
146	585500	Office Cleaning Services	14.90	9.76%	1.45	16.36	3.26%	0.53	16.89	3.26%	0.55	17.44	Compounded Expense Inflator
147	585900	Other Office Maintenance	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
148	586100	Landline/Telephone/Fax	819.67	9.76%	80.01	899.68	3.26%	29.36	929.04	3.26%	30.32	959.36	Compounded Expense Inflator
149	586200	Cellular/Mobile Phones	3,380.90	9.76%	330.01	3,710.91	3.26%	121.11	3,832.02	3.26%	125.07	3,957.09	Compounded Expense Inflator
150	587100	Holiday Events/Picnics	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
151	587200	Meals and Entertainment	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
152	587300	Meals and Entertainment - 50% Tax Deductible	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
153	587400	Meals and Entertainment - Non Deductible	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
154	587500	Answering Service	865.43	9.76%	84.47	949.90	3.26%	31.00	980.90	3.26%	32.01	1,012.92	Compounded Expense Inflator
155	587900	Other Office Expenses	194.52	9.76%	18.99	213.51	3.26%	6.97	220.48	3.26%	7.20	227.68	Compounded Expense Inflator
156	511003	Purchased Services-Gas	47.18	9.76%	4.61	51.79	3.26%	1.69	53.48	3.26%	1.75	55.22	Compounded Expense Inflator
157	621100	Advertising	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
158	621300	Trade Shows	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
159	621400	Promotions/Corporate Sponsor	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
160	621500	Promotions - 50%	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
161	622100	Bank Service Charges	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
162	622200	Bank Charges - Merchant	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
163	622300	Letter of Credit Fees	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
164	623100	Donations for Registered Charities	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator

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165	623200	Donations for Non-Registered Charities	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
166	624100	License Fees	258.82	9.76%	25.26	284.08	3.26%	9.27	293.35	3.26%	9.57	302.92	Compounded Expense Inflator
167	624200	Franchise Fee	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
168	624300	5% FF on Usage	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
169	625100	Penalties and Fines	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
170	625200	Penalties and Fines to Government (Non-Deductible)	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
171	625300	Late Fees	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
172	626100	Education and Training	886.50	9.76%	86.53	973.03	3.26%	31.76	1,004.79	3.26%	32.79	1,037.59	Compounded Expense Inflator
173	629100	Memberships and Dues	3,052.61	9.76%	297.96	3,350.58	3.26%	109.35	3,459.93	3.26%	112.92	3,572.85	Compounded Expense Inflator
174	629200	Payroll Admin Fee	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
175	629300	Director and Board Fees	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
176	629400	Corporate Governance	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
177	629500	Credit Card Expense Clearing	(1,027.01)	9.76%	(100.25)	(1,127.26)	3.26%	(36.79)	(1,164.05)	3.26%	(37.99)	(1,202.04)	Compounded Expense Inflator
178	629600	Credit Card/Cash Expense - Unallocated	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
179	629700	Cost Recovery	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
180	629800	Discount/Rebate Taken	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
181	629850	Community Service	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
182	629900	Other Misc Expense	1,423.70	9.76%	138.97	1,562.66	3.26%	51.00	1,613.66	3.26%	52.67	1,666.33	Compounded Expense Inflator
183	591000	Accommodation/Hotel/Lodging	822.83	9.76%	80.32	903.14	3.26%	29.48	932.62	3.26%	30.44	963.06	Compounded Expense Inflator
184	592000	Airfare	25.74	9.76%	2.51	28.25	3.26%	0.92	29.17	3.26%	0.95	30.12	Compounded Expense Inflator
185	593000	Transportation excl. Airfare	193.76	9.76%	18.91	212.67	3.26%	6.94	219.61	3.26%	7.17	226.78	Compounded Expense Inflator
186	594000	Travel - Meals and Entertainment	(10.97)	9.76%	(1.07)	(12.04)	3.26%	(0.39)	(12.43)	3.26%	(0.41)	(12.84)	Compounded Expense Inflator
187	595000	Travel - Meals and Entertainment - 50% Tax Deductible	468.47	9.76%	45.73	514.20	3.26%	16.78	530.98	3.26%	17.33	548.31	Compounded Expense Inflator
188	596000	Travel - Meals and Entertainment - Non Deductible	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
189	599900	Other Travel	2,274.46	9.76%	222.01	2,496.47	3.26%	81.48	2,577.95	3.26%	84.14	2,662.09	Compounded Expense Inflator
190	0	Federal Protected EDIT Amortization	(5,199.00)	0.00%	-	(5,199.00)	0.00%	-	(5,199.00)	0.00%	-	(5,199.00)	No General Inflation
191	630002	Commission Ordered Adjustments	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
192	691000	Corporate Allocation	279,398.76	7.60%	21,234.31	300,633.07	3.26%	9,811.85	310,444.92	3.26%	10,132.08	320,577.00	Compounded Pro Forma Expense Inflation
193	692000	Regional Allocation	38,383.96	7.60%	2,917.18	41,301.14	3.26%	1,347.96	42,649.10	3.26%	1,391.95	44,041.05	Compounded Pro Forma Expense Inflation
194	693000	Contract Shared Services Allocation	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
195	694000	Allocation Markup	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
196	811003	Standby/Letter of Credit Fees	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
197	816004	Interest - Other	1,427.93	9.76%	139.38	1,567.31	3.26%	51.15	1,618.47	3.26%	52.82	1,671.29	Compounded Expense Inflator
198	641100	FICA	35,517.77	3.00%	1,065.53	36,583.30	3.00%	1,097.50	37,680.80	3.00%	1,130.42	38,811.22	Salaries Increase Assumptions
199	641200	Payroll Tax	-	3.00%	-	-	3.00%	-	-	3.00%	-	-	Salaries Increase Assumptions
200	641300	Employer Health Tax	-	3.00%	-	-	3.00%	-	-	3.00%	-	-	Salaries Increase Assumptions
201	642100	Federal Unemployment Tax	256.04	3.00%	7.68	263.72	3.00%	7.91	271.64	3.00%	8.15	279.79	Salaries Increase Assumptions
202	642200	State Unemployment Tax	799.66	3.00%	23.99	823.65	3.00%	24.71	848.36	3.00%	25.45	873.81	Salaries Increase Assumptions
203	642300	Other Payroll Taxes	-	3.00%	-	-	3.00%	-	-	3.00%	-	-	Salaries Increase Assumptions
204	643100	Franchise Taxes	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
205	643200	Gross Receipts Taxes	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
206	643300	Personal Property Taxes	1,220.27	26.49%	323.29	1,543.56	14.96%	230.84	1,774.40	8.59%	152.41	1,926.81	Real Estate Taxes
207	643400	Real Estate Taxes	6,525.76	26.49%	1,728.89	8,254.66	14.96%	1,234.51	9,489.16	8.59%	815.08	10,304.24	Real Estate Taxes
208	643500	Sales And Use Taxes	-	9.76%	-	-	3.26%	-	-	3.26%	-	-	Compounded Expense Inflator
209	643600	Utility/Commission Taxes	-	-	3,176.55	3,176.55	-	309.69	3,486.24	-	233.08	3,719.32	Manual Calculation
210	643700	Other General Taxes	(1,321.03)	9.76%	(128.94)	(1,449.97)	3.26%	(47.32)	(1,497.29)	3.26%	(48.87)	(1,546.16)	Compounded Expense Inflator

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
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Test Year: March 31, 2022
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Schedule 29 - BF FH TC
Updated 09/19/2022

Line No.	Account	Description	Historical Test Year as adjusted	Inflator Rate	Rate Year 1 Adjustments	Rate Year 1 Revenue Requirement	Inflator Rate	Rate Year 2 Adjustments	Rate Year 2 Revenue Requirement	Inflator Rate	Rate Year 3 Adjustments	Rate Year 3 Revenue Requirement	Inflationary Assumption
Sewer Bradfield Farms - Fairfield Harbour - Treasure Cove													
211	517001	Utility-Electric Power	149,603.88	10.10%	15,105.71	164,709.59	3.89%	6,413.19	171,122.78	3.89%	6,662.90	177,785.68	Compounded Expense Inflator
212	511002	Purchased Services-Sewer	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	No General Inflation
213	512001	Shop Supplies and Tools	1,697.19	10.10%	171.37	1,868.56	3.89%	72.75	1,941.31	3.89%	75.59	2,016.90	Compounded Expense Inflator
214	512002	Repairs and Maintenance	34,476.70	10.10%	3,481.16	37,957.86	3.89%	1,477.94	39,435.80	3.89%	1,535.49	40,971.29	Compounded Expense Inflator
215	512003	Main Breaks	240.31	10.10%	24.26	264.57	3.89%	10.30	274.88	3.89%	10.70	285.58	Compounded Expense Inflator
216	512004	Traps Repair	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
217	512005	Valve Repair	16.99	10.10%	1.72	18.71	3.89%	0.73	19.43	3.89%	0.76	20.19	Compounded Expense Inflator
218	512006	Manhole Maint	35.82	10.10%	3.62	39.44	3.89%	1.54	40.97	3.89%	1.60	42.57	Compounded Expense Inflator
219	512007	Major Repairs	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
220	512008	Maintenance Electric Equip Repair	2,686.43	10.10%	271.25	2,957.68	3.89%	115.16	3,072.84	3.89%	119.65	3,192.49	Compounded Expense Inflator
221	512009	Permits	7,105.60	10.10%	717.46	7,823.06	3.89%	304.60	8,127.66	3.89%	316.46	8,444.13	Compounded Expense Inflator
222	512010	Sewer Rodding	30,298.44	10.10%	3,059.28	33,357.72	3.89%	1,298.83	34,656.54	3.89%	1,349.40	36,005.94	Compounded Expense Inflator
223	512011	Sewer Sludge Hauling	90,677.27	10.10%	9,155.81	99,833.08	3.89%	3,887.14	103,720.22	3.89%	4,038.49	107,758.70	Compounded Expense Inflator
224	512013	Excavation Restoration	3.99	10.10%	0.40	4.39	3.89%	0.17	4.56	3.89%	0.18	4.74	Compounded Expense Inflator
225	512014	Communication Expense	3,778.33	10.10%	381.50	4,159.83	3.89%	161.97	4,321.80	3.89%	168.28	4,490.08	Compounded Expense Inflator
226	512015	Equipment Rental	262.79	10.10%	26.53	289.32	3.89%	11.27	300.59	3.89%	11.70	312.29	Compounded Expense Inflator
227	512016	Uniforms	1,071.99	10.10%	108.24	1,180.23	3.89%	45.95	1,226.18	3.89%	47.74	1,273.93	Compounded Expense Inflator
228	512017	Weather/Hurricane/Fuel/Snow removal	5,366.67	10.10%	541.88	5,908.55	3.89%	230.06	6,138.61	3.89%	239.01	6,377.62	Compounded Expense Inflator
229	512018	Safety Supplies/Expense	529.02	10.10%	53.42	582.43	3.89%	22.68	605.11	3.89%	23.56	628.67	Compounded Expense Inflator
230	512019	Moving Expense	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
231	512020	Service Claims	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
232	512021	Landscaping	8,262.24	10.10%	834.25	9,096.49	3.89%	354.18	9,450.67	3.89%	367.97	9,818.65	Compounded Expense Inflator
233	512022	Other Contracted Workers	83.45	10.10%	8.43	91.88	3.89%	3.58	95.45	3.89%	3.72	99.17	Compounded Expense Inflator
234	512023	Pump Station R&M	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
235	512024	Project Labor Hours (COGS)	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
236	512025	Vehicle Labor Hours (COGS)	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
237	512900	Other Plant and System Maintenance	6,955.35	10.10%	702.29	7,657.65	3.89%	298.16	7,955.81	3.89%	309.77	8,265.58	Compounded Expense Inflator
238	513002	Meter Supplies	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
239	513003	Pipe, Plate, Gasket	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
240	513004	Misc Bearing	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
241	513005	Lubricant, Gases	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
242	513006	Misc Gge Glass, Parts	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
243	513007	Rig Equip	27.35	10.10%	2.76	30.11	3.89%	1.17	31.28	3.89%	1.22	32.50	Compounded Expense Inflator
244	513008	Electrical Equip	189.29	10.10%	19.11	208.40	3.89%	8.11	216.52	3.89%	8.43	224.95	Compounded Expense Inflator
245	513009	Lighting Supplies	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
246	513010	Plant Air System	34.49	10.10%	3.48	37.97	3.89%	1.48	39.45	3.89%	1.54	40.99	Compounded Expense Inflator
247	513011	Valves and Traps	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
248	513012	Duty and Brokerage	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
249	513899	Materials and Supplies Write-off	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
250	513900	Other Materials and Supplies	20,205.62	10.10%	2,040.19	22,245.81	3.89%	866.17	23,111.98	3.89%	899.90	24,011.88	Compounded Expense Inflator
251	512012	Deferred Maintenance Expense	22,098.34	-	(1,619.14)	20,479.20	-	-	20,479.20	-	-	20,479.20	Manual Calculation
252	515001	Laboratory Testing	(5,762.66)	7.60%	(437.96)	(6,200.62)	3.89%	(241.43)	(6,442.05)	3.89%	(250.83)	(6,692.88)	Compounded Pro Forma Expense Inflation
253	515002	Test - Water/Sewer	29,439.07	7.60%	2,237.37	31,676.44	3.89%	1,233.36	32,909.80	3.89%	1,281.39	34,191.19	Compounded Pro Forma Expense Inflation
254	515003	Test - Equipment/Chemical	474.49	7.60%	36.06	510.55	3.89%	19.88	530.43	3.89%	20.65	551.08	Compounded Pro Forma Expense Inflation
255	515004	Test - Safe Drinking Water Act	27.81	7.60%	2.11	29.92	3.89%	1.17	31.09	3.89%	1.21	32.30	Compounded Pro Forma Expense Inflation
256	516001	Service - Meter Reading	1,040.97	10.10%	105.11	1,146.08	3.89%	44.62	1,190.70	3.89%	46.36	1,237.06	Compounded Expense Inflator
257	514001	Chlorine	2,283.29	7.60%	173.53	2,456.82	3.89%	95.66	2,552.48	3.89%	99.38	2,651.86	Compounded Pro Forma Expense Inflation
258	514002	Odor Control Chemicals	-	7.60%	-	-	3.89%	-	-	3.89%	-	-	Compounded Pro Forma Expense Inflation
259	514900	Other Chemicals	65,252.88	7.60%	4,959.22	70,212.10	3.89%	2,733.80	72,945.90	3.89%	2,840.25	75,786.15	Compounded Pro Forma Expense Inflation
260	601000	Vehicle Leasing	898.00	10.10%	90.67	988.67	3.89%	38.50	1,027.16	3.89%	39.99	1,067.16	Compounded Expense Inflator
261	602000	Vehicle Fuel	25,315.32	10.10%	2,556.12	27,871.44	3.89%	1,085.21	28,956.66	3.89%	1,127.47	30,084.12	Compounded Expense Inflator
262	603000	Vehicle Repairs and Maintenance	11,709.05	10.10%	1,182.28	12,891.33	3.89%	501.94	13,393.28	3.89%	521.49	13,914.76	Compounded Expense Inflator
263	604000	Vehicle Registration/Licensing Fees	41.21	10.10%	4.16	45.37	3.89%	1.77	47.14	3.89%	1.84	48.97	Compounded Expense Inflator
264	605000	Vehicle - Employee Mileage Claim	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator

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265	606000	Project Vehicle Hours	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
266	607000	Vehicle Charged to Projects	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
267	609000	Vehicle - Other Costs	1,518.99	10.10%	153.37	1,672.37	3.89%	65.12	1,737.48	3.89%	67.65	1,805.13	Compounded Expense Inflator
268	522001	Capitalized Time	(67,085.00)	3.00%	(2,012.55)	(69,097.55)	3.00%	(2,072.93)	(71,170.48)	3.00%	(2,135.11)	(73,305.59)	Salaries Increase Assumptions
269	540100	Consulting	1,299.50	10.10%	131.21	1,430.71	3.89%	55.71	1,486.41	3.89%	57.88	1,544.29	Compounded Expense Inflator
270	540200	Accounting and Audit	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
271	540300	Recruitment	22.08	10.10%	2.23	24.31	3.89%	0.95	25.26	3.89%	0.98	26.24	Compounded Expense Inflator
272	540400	Legal	213.08	10.10%	21.52	234.60	3.89%	9.13	243.73	3.89%	9.49	253.22	Compounded Expense Inflator
273	540500	Payroll	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
274	540600	Tax	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
275	540700	Engineering	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
276	540800	Temporary Labor	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
277	540900	Police	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
278	541000	Environmental	24,026.99	10.10%	2,426.04	26,453.03	3.89%	1,029.98	27,483.01	3.89%	1,070.09	28,553.10	Compounded Expense Inflator
279	541100	Management Fee	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
280	541200	Contractor Outside Services	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
281	541300	Employee Finder Fees	59.00	10.10%	5.96	64.96	3.89%	2.53	67.49	3.89%	2.63	70.11	Compounded Expense Inflator
282	549000	Other Outside Services	(302.12)	10.10%	(30.51)	(332.63)	3.89%	(12.95)	(345.58)	3.89%	(13.46)	(359.04)	Compounded Expense Inflator
283	0	Salaries & Wages - General	485,773.71	3.00%	14,573.21	500,346.92	3.00%	15,010.41	515,357.32	3.00%	15,460.72	530,818.04	Salaries Increase Assumptions
284	628100	Billing Stock	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
285	628200	Billing Envelopes	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
286	628300	Billing Postage	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
287	628400	Customer Service Printing	34,197.43	7.60%	2,599.00	36,796.44	3.89%	1,432.72	38,229.15	3.89%	1,488.50	39,717.66	Compounded Pro Forma Expense Inflation
288	628500	Customer Freight/Courier Charges	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
289	550200	Computer Repair and Maintenance	0.77	10.10%	0.08	0.85	3.89%	0.03	0.88	3.89%	0.03	0.91	Compounded Expense Inflator
290	550300	Computer Supplies	(877.15)	10.10%	(88.57)	(965.71)	3.89%	(37.60)	(1,003.32)	3.89%	(39.07)	(1,042.38)	Compounded Expense Inflator
291	550400	Internet Services	58.60	10.10%	5.92	64.52	3.89%	2.51	67.03	3.89%	2.61	69.64	Compounded Expense Inflator
292	550500	Website Development	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
293	550600	Computer Licensing	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
294	550700	Software	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
295	550800	Computer Amort	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
296	559900	Other Computer/IT Expenses	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
297	581100	Office Supplies	757.60	10.10%	76.50	834.09	3.89%	32.48	866.57	3.89%	33.74	900.31	Compounded Expense Inflator
298	581200	Kitchen Supplies	219.24	10.10%	22.14	241.38	3.89%	9.40	250.78	3.89%	9.76	260.54	Compounded Expense Inflator
299	581300	Cleaning Supplies	112.20	10.10%	11.33	123.53	3.89%	4.81	128.34	3.89%	5.00	133.34	Compounded Expense Inflator
300	582100	Office Equipment	158.58	10.10%	16.01	174.59	3.89%	6.80	181.39	3.89%	7.06	188.45	Compounded Expense Inflator
301	582200	Office Equipment - Rent/Leased	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
302	583100	Office Printing/Blueprints	89.82	10.10%	9.07	98.88	3.89%	3.85	102.73	3.89%	4.00	106.73	Compounded Expense Inflator
303	583200	Office Publications/Subscriptions	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
304	583300	Artwork, Display and Banner	12.77	10.10%	1.29	14.06	3.89%	0.55	14.61	3.89%	0.57	15.18	Compounded Expense Inflator
305	583400	Office Shipping Charges/Postage/Courier	2,202.69	10.10%	222.41	2,425.10	3.89%	94.42	2,519.52	3.89%	98.10	2,617.63	Compounded Expense Inflator
306	583500	Office Duties and Brokerage	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
307	611100	Rate Case Amortization	37,997.00	0.00%	-	37,997.00	0.00%	-	37,997.00	0.00%	-	37,997.00	No General Inflation
308	611200	Cost of Service Study	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
309	611300	Depreciation Study	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
310	611400	Regulatory Penalties and Fines	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
311	612100	Regulatory Fees	356.92	10.10%	36.04	392.96	3.89%	15.30	408.26	3.89%	15.90	424.15	Compounded Expense Inflator
312	612200	Water Resource Conservation	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
313	612300	Misc Rate Case Expense	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
314	612900	Other Regulatory Expenses	12,281.39	10.10%	1,240.07	13,521.46	3.89%	526.48	14,047.94	3.89%	546.98	14,594.91	Compounded Expense Inflator
315	531001	401K Profit Sharing	12,389.75	7.60%	941.62	13,331.38	3.89%	519.08	13,850.45	3.89%	539.29	14,389.74	Compounded Pro Forma Expense Inflation
316	531002	401K Match	12,107.19	7.60%	920.15	13,027.34	3.89%	507.24	13,534.58	3.89%	526.99	14,061.56	Compounded Pro Forma Expense Inflation
317	531100	RRSP Match	-	7.60%	-	-	3.89%	-	-	3.89%	-	-	Compounded Pro Forma Expense Inflation
318	531200	Canada Pension Plan	-	7.60%	-	-	3.89%	-	-	3.89%	-	-	Compounded Pro Forma Expense Inflation
319	532001	Health Admin and Stop Loss	0.00	7.60%	0.00	0.00	3.89%	0.00	0.00	3.89%	0.00	0.00	Compounded Pro Forma Expense Inflation

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320	532002	Dental	3,048.46	7.60%	231.68	3,280.14	3.89%	127.72	3,407.86	3.89%	132.69	3,540.55	Compounded Pro Forma Expense Inflation
321	532003	Medical	-	7.60%	-	-	3.89%	-	-	3.89%	-	-	Compounded Pro Forma Expense Inflation
322	532004	Medical Service Plan (MSP)	-	7.60%	-	-	3.89%	-	-	3.89%	-	-	Compounded Pro Forma Expense Inflation
323	532005	Employee Insurance Deductions	0.00	7.60%	0.00	0.00	3.89%	0.00	0.00	3.89%	0.00	0.00	Compounded Pro Forma Expense Inflation
324	532006	Health Insurance Claims	83,435.60	7.60%	6,341.11	89,776.70	3.89%	3,495.58	93,272.28	3.89%	3,631.68	96,903.96	Compounded Pro Forma Expense Inflation
325	532007	Group Insurance	-	7.60%	-	-	3.89%	-	-	3.89%	-	-	Compounded Pro Forma Expense Inflation
326	532008	Health Insurance	-	7.60%	-	-	3.89%	-	-	3.89%	-	-	Compounded Pro Forma Expense Inflation
327	532009	Workers Compensation Insurance (WCB)	4,637.00	7.60%	352.41	4,989.41	3.89%	194.27	5,183.68	3.89%	201.83	5,385.51	Compounded Pro Forma Expense Inflation
328	532010	Unemployment Insurance (EI)	-	7.60%	-	-	3.89%	-	-	3.89%	-	-	Compounded Pro Forma Expense Inflation
329	532011	Union Dues	-	7.60%	-	-	3.89%	-	-	3.89%	-	-	Compounded Pro Forma Expense Inflation
330	532012	Term Life Insurance	3,604.41	7.60%	273.94	3,878.34	3.89%	151.01	4,029.35	3.89%	156.89	4,186.24	Compounded Pro Forma Expense Inflation
331	532013	Term Life Insurance Opt	(0.00)	7.60%	(0.00)	(0.00)	3.89%	(0.00)	(0.00)	3.89%	(0.00)	(0.00)	Compounded Pro Forma Expense Inflation
332	532014	Depend Life Insurance Opt	-	7.60%	-	-	3.89%	-	-	3.89%	-	-	Compounded Pro Forma Expense Inflation
333	532015	Vacation	-	7.60%	-	-	3.89%	-	-	3.89%	-	-	Compounded Pro Forma Expense Inflation
334	532016	Education / Tuition	-	7.60%	-	-	3.89%	-	-	3.89%	-	-	Compounded Pro Forma Expense Inflation
335	532017	Safety	-	7.60%	-	-	3.89%	-	-	3.89%	-	-	Compounded Pro Forma Expense Inflation
336	532018	Longevity	-	7.60%	-	-	3.89%	-	-	3.89%	-	-	Compounded Pro Forma Expense Inflation
337	532019	Incidental	-	7.60%	-	-	3.89%	-	-	3.89%	-	-	Compounded Pro Forma Expense Inflation
338	532020	Holiday	-	7.60%	-	-	3.89%	-	-	3.89%	-	-	Compounded Pro Forma Expense Inflation
339	532021	Jury Duty	-	7.60%	-	-	3.89%	-	-	3.89%	-	-	Compounded Pro Forma Expense Inflation
340	532900	Other Employee Benefits	827.53	7.60%	62.89	890.43	3.89%	34.67	925.10	3.89%	36.02	961.12	Compounded Pro Forma Expense Inflation
341	532999	Payroll Suspende	-	7.60%	-	-	3.89%	-	-	3.89%	-	-	Compounded Pro Forma Expense Inflation
342	560100	General Liability Insurance	22,435.33	7.60%	1,705.09	24,140.42	3.89%	939.94	25,080.36	3.89%	976.54	26,056.90	Compounded Pro Forma Expense Inflation
343	560200	Property Insurance	34,509.24	7.74%	2,670.08	37,179.32	24.01%	8,925.83	46,105.15	13.88%	6,401.70	52,506.84	Property Insurance Expense Inflation
344	560300	Vehicle Insurance	8,665.81	7.74%	670.50	9,336.30	24.01%	2,241.41	11,577.72	13.88%	1,607.57	13,185.28	Property Insurance Expense Inflation
345	560400	Uninsured Losses	7,786.54	7.60%	591.78	8,378.32	3.89%	326.22	8,704.54	3.89%	338.92	9,043.46	Compounded Pro Forma Expense Inflation
346	560500	Other Insurance	14,462.31	7.60%	1,099.14	15,561.45	3.89%	605.91	16,167.35	3.89%	629.50	16,796.85	Compounded Pro Forma Expense Inflation
347	571100	Building Rent	25,446.00	-	1,933.90	27,379.90	-	893.61	28,273.50	-	922.77	29,196.27	Manual Calculation
348	584100	Office Electric	1,156.02	10.10%	116.72	1,272.74	3.89%	49.56	1,322.30	3.89%	51.49	1,373.78	Compounded Expense Inflator
349	584200	Office Gas/Heat	20.38	10.10%	2.06	22.44	3.89%	0.87	23.31	3.89%	0.91	24.22	Compounded Expense Inflator
350	584300	Office Water	5.94	10.10%	0.60	6.54	3.89%	0.25	6.80	3.89%	0.26	7.06	Compounded Expense Inflator
351	584900	Office Other Utilities	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
352	585100	Office Garbage Disposal/Removal	11,072.04	10.10%	1,117.96	12,190.00	3.89%	474.63	12,664.63	3.89%	493.11	13,157.75	Compounded Expense Inflator
353	585200	Office Landscape/Mowing	43.47	10.10%	4.39	47.86	3.89%	1.86	49.72	3.89%	1.94	51.66	Compounded Expense Inflator
354	585300	Office Snow Removal	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
355	585400	Office Security/Alarm System	26.55	10.10%	2.68	29.23	3.89%	1.14	30.37	3.89%	1.18	31.55	Compounded Expense Inflator
356	585500	Office Cleaning Services	15.26	10.10%	1.54	16.80	3.89%	0.65	17.45	3.89%	0.68	18.13	Compounded Expense Inflator
357	585900	Other Office Maintenance	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
358	586100	Landline/Telephone/Fax	839.01	10.10%	84.72	923.73	3.89%	35.97	959.70	3.89%	37.37	997.06	Compounded Expense Inflator
359	586200	Cellular/Mobile Phones	3,460.69	10.10%	349.43	3,810.12	3.89%	148.35	3,958.47	3.89%	154.13	4,112.60	Compounded Expense Inflator
360	587100	Holiday Events/Picnics	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
361	587200	Meals and Entertainment	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
362	587300	Meals and Entertainment - 50% Tax Deductible	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
363	587400	Meals and Entertainment - Non Deductible	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
364	587500	Answering Service	885.85	10.10%	89.45	975.30	3.89%	37.97	1,013.27	3.89%	39.45	1,052.73	Compounded Expense Inflator
365	587900	Other Office Expenses	199.12	10.10%	20.10	219.22	3.89%	8.54	227.76	3.89%	8.87	236.62	Compounded Expense Inflator
366	511003	Purchased Services-Gas	47.97	10.10%	4.84	52.81	3.89%	2.06	54.87	3.89%	2.14	57.01	Compounded Expense Inflator
367	621100	Advertising	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
368	621300	Trade Shows	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
369	621400	Promotions/Corporate Sponsor	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
370	621500	Promotions - 50%	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
371	622100	Bank Service Charges	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
372	622200	Bank Charges - Merchant	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
373	622300	Letter of Credit Fees	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
374	623100	Donations for Registered Charities	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule 29 - BF FH TC
Updated 09/19/2022

Line No.	Account	Description	Historical Test Year as adjusted	Inflator Rate	Rate Year 1 Adjustments	Rate Year 1 Revenue Requirement	Inflator Rate	Rate Year 2 Adjustments	Rate Year 2 Revenue Requirement	Inflator Rate	Rate Year 3 Adjustments	Rate Year 3 Revenue Requirement	Inflationary Assumption
375	623200	Donations for Non-Registered Charities	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
376	624100	License Fees	264.92	10.10%	26.75	291.67	3.89%	11.36	303.03	3.89%	11.80	314.83	Compounded Expense Inflator
377	624200	Franchise Fee	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
378	624300	5% FF on Usage	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
379	625100	Penalties and Fines	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
380	625200	Penalties and Fines to Government (Non-Deductible)	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
381	625300	Late Fees	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
382	626100	Education and Training	907.43	10.10%	91.62	999.05	3.89%	38.90	1,037.95	3.89%	40.41	1,078.36	Compounded Expense Inflator
383	629100	Memberships and Dues	3,124.66	10.10%	315.50	3,440.16	3.89%	133.95	3,574.11	3.89%	139.16	3,713.27	Compounded Expense Inflator
384	629200	Payroll Admin Fee	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
385	629300	Director and Board Fees	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
386	629400	Corporate Governance	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
387	629500	Credit Card Expense Clearing	(1,051.25)	10.10%	(106.15)	(1,157.40)	3.89%	(45.06)	(1,202.46)	3.89%	(46.82)	(1,249.28)	Compounded Expense Inflator
388	629600	Credit Card/Cash Expense - Unallocated	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
389	629700	Cost Recovery	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
390	629800	Discount/Rebate Taken	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
391	629850	Community Service	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
392	629900	Other Misc Expense	1,424.31	10.10%	143.81	1,568.13	3.89%	61.06	1,629.18	3.89%	63.43	1,692.62	Compounded Expense Inflator
393	591000	Accommodation/Hotel/Lodging	842.24	10.10%	85.04	927.29	3.89%	36.11	963.39	3.89%	37.51	1,000.90	Compounded Expense Inflator
394	592000	Airfare	26.34	10.10%	2.66	29.00	3.89%	1.13	30.13	3.89%	1.17	31.31	Compounded Expense Inflator
395	593000	Transportation excl. Airfare	198.33	10.10%	20.03	218.36	3.89%	8.50	226.86	3.89%	8.83	235.69	Compounded Expense Inflator
396	594000	Travel - Meals and Entertainment	(11.23)	10.10%	(1.13)	(12.36)	3.89%	(0.48)	(12.84)	3.89%	(0.50)	(13.34)	Compounded Expense Inflator
397	595000	Travel - Meals and Entertainment - 50% Tax Deductible	479.53	10.10%	48.42	527.95	3.89%	20.56	548.50	3.89%	21.36	569.86	Compounded Expense Inflator
398	596000	Travel - Meals and Entertainment - Non Deductible	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
399	599900	Other Travel	2,328.14	10.10%	235.08	2,563.21	3.89%	99.80	2,663.02	3.89%	103.69	2,766.71	Compounded Expense Inflator
400	0	Federal Protected EDIT Amortization	(5,321.00)	0.00%	-	(5,321.00)	0.00%	-	(5,321.00)	0.00%	-	(5,321.00)	No General Inflation
401	630002	Commission Ordered Adjustments	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
402	691000	Corporate Allocation	285,992.74	7.60%	21,735.45	307,728.19	3.89%	11,981.81	319,710.00	3.89%	12,448.34	332,158.34	Compounded Pro Forma Expense Inflation
403	692000	Regional Allocation	39,289.85	7.60%	2,986.03	42,275.88	3.89%	1,646.07	43,921.95	3.89%	1,710.16	45,632.11	Compounded Pro Forma Expense Inflation
404	693000	Contract Shared Services Allocation	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
405	694000	Allocation Markup	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
406	811003	Standby/Letter of Credit Fees	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
407	816004	Interest - Other	1,461.63	10.10%	147.58	1,609.22	3.89%	62.66	1,671.88	3.89%	65.10	1,736.97	Compounded Expense Inflator
408	641100	FICA	36,356.01	3.00%	1,090.68	37,446.69	3.00%	1,123.40	38,570.09	3.00%	1,157.10	39,727.20	Salaries Increase Assumptions
409	641200	Payroll Tax	-	3.00%	-	-	3.00%	-	-	3.00%	-	-	Salaries Increase Assumptions
410	641300	Employer Health Tax	-	3.00%	-	-	3.00%	-	-	3.00%	-	-	Salaries Increase Assumptions
411	642100	Federal Unemployment Tax	262.09	3.00%	7.86	269.95	3.00%	8.10	278.05	3.00%	8.34	286.39	Salaries Increase Assumptions
412	642200	State Unemployment Tax	818.53	3.00%	24.56	843.09	3.00%	25.29	868.38	3.00%	26.05	894.43	Salaries Increase Assumptions
413	642300	Other Payroll Taxes	-	3.00%	-	-	3.00%	-	-	3.00%	-	-	Salaries Increase Assumptions
414	643100	Franchise Taxes	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
415	643200	Gross Receipts Taxes	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
416	643300	Personal Property Taxes	3,073.75	7.74%	237.83	3,311.58	24.01%	795.03	4,106.61	13.88%	570.20	4,676.81	Real Estate Taxes
417	643400	Real Estate Taxes	6,679.78	7.74%	516.83	7,196.61	24.01%	1,727.73	8,924.34	13.88%	1,239.14	10,163.48	Real Estate Taxes
418	643500	Sales And Use Taxes	-	10.10%	-	-	3.89%	-	-	3.89%	-	-	Compounded Expense Inflator
419	643600	Utility/Commission Taxes	-	-	4,183.13	4,183.13	-	830.57	5,013.71	-	559.71	5,573.41	Manual Calculation
420	643700	Other General Taxes	(1,352.20)	10.10%	(136.53)	(1,488.74)	3.89%	(57.97)	(1,546.70)	3.89%	(60.22)	(1,606.93)	Compounded Expense Inflator

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
Summary of Rate Case Adjustments
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Schedule 29
Updated 09/19/2022

Purpose:

To identify and include in the revenue requirement expense increases through the WSIP period.

Method:

Identify which inflator is the most reasonable and apply that expense increase to each of the periods through the WSIP period. Accounts that are marked as no general inflation have a manual build addressing the level of expenses through the WSIP period.

Update: Used most recent CPI data through August 2022 and developed a new CPI assumption for expense categories that are already receiving a pro-forma adjustment in order to not adjust certain expenses twice for the same period.

Inflation Assumptions	Water WSIP Year 1	Water WSIP Year 2	Water WSIP Year 3	Sewer WSIP Year 1	Sewer WSIP Year 2	Sewer WSIP Year 3
Growth Inflation	0.42%	0.84%	0.84%	0.73%	1.46%	1.46%
Expense Inflation	9.30%	2.40%	2.40%	9.30%	2.40%	2.40%
Compounded Expense Inflator	9.76%	3.26%	3.26%	10.10%	3.89%	3.89%

Note: Expense inflation is based on projected CPI, further details can be found in Witness Drennan's testimony. Growth inflation is based on assumed ERC growth through the WSIP period as reflected in Schedule E. Expenses that are expected to be sensitive to both expense inflation as well as system usage will have a compound inflation applied.

Growth Inflation	0.00%	0.84%	0.84%	0.00%	1.46%	1.46%
Pro Forma Expense Inflation	7.60%	2.40%	2.40%	7.60%	2.40%	2.40%
Compounded Pro Forma Expense Inflation	7.60%	3.26%	3.26%	7.60%	3.89%	3.89%

Note: Expense inflation is based on projected CPI, further details can be found in Witness Drennan's testimony. Growth inflation is based on assumed ERC growth through the WSIP period as reflected in Schedule E. Expenses that are expected to be sensitive to both expense inflation as well as system usage will have a compound inflation applied. This expense inflator was developed for expenses that have pro-forma adjustments to account for CPI assumptions from July-22 through the WSIP periods.

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400

Summary of Rate Case Adjustments

Test Year: March 31, 2022

WSIP Period: April 1, 2023 - March 31, 2026

Salaries Increase Assumptions	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
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Schedule 29
Updated 09/19/2022

Note: WSIP period salary increase assumptions are based on market demands and are set based on internal corporate direction.

Real Estate Taxes	26.49%	14.96%	8.59%	7.74%	24.01%	13.88%
Property Insurance Expense Inflation	26.49%	14.96%	8.59%	7.74%	24.01%	13.88%

Note: Real Estate Taxes and Property Insurance Expense inflators are based on the growth in gross plant in service between WSIP period

No General Inflation	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
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Note: Certain accounts do not have a generic growth inflator and instead are either expected to remain flat, have a manual workpaper calculation associated with them, or in the case of purchased water and sewer treatment expenses will be accounted for through that regulatory mechanism.

W-354, Sub 400

Carolina Water Service Inc. of North Carolina
Recommended Capital Structure and Cost Rates

Base Year

Type Of Capital	Ratios (1)	Cost Rate	Weighted Cost Rate
Long-Term Debt	50.00%	4.64% (1)	2.32%
Common Equity	50.00%	9.95% - 10.95% (2)	4.97% - 5.47%
Total	100.00%		7.29% - 7.79%

Projected Rate Year 1 (2023 Projected Interest Rates)

Type Of Capital	Ratios (1)	Cost Rate	Weighted Cost Rate
Long-Term Debt	50.00%	4.64% (1)	2.32%
Common Equity	50.00%	10.17% - 11.17% (2)	5.08% - 5.58%
Total	100.00%		7.40% - 7.90%

Projected Rate Year 2 (2024 Projected Interest Rates)

Type Of Capital	Ratios (1)	Cost Rate	Weighted Cost Rate
Long-Term Debt	50.00%	4.64% (1)	2.32%
Common Equity	50.00%	10.13% - 11.13% (2)	5.07% - 5.57%
Total	100.00%		7.39% - 7.89%

Projected Rate Year 3 (2025 Projected Interest Rates)

Type Of Capital	Ratios (1)	Cost Rate	Weighted Cost Rate
Long-Term Debt	50.00%	4.64% (1)	2.32%
Common Equity	50.00%	10.24% - 11.24% (2)	5.12% - 5.62%
Total	100.00%		7.44% - 7.94%

Notes:

- (1) Company-provided.
(2) From page 2 of this Schedule.

W-354, Sub 400

Carolina Water Service Inc. of North Carolina
Brief Summary of Common Equity Cost Rate

Line No.	Principal Methods	Base Year (Current Interest Rates)	Projected Year 1 (2023 Projected Int. Rates)	Projected Year 2 (2024 Projected Int. Rates)	Projected Year 3 (2025 Projected Int. Rates)
1.	Discounted Cash Flow Model (DCF) (1)	9.37%	9.37%	9.37%	9.37%
2.	Risk Premium Model (RPM) (2)	11.12%	11.76%	11.69%	11.90%
3.	Capital Asset Pricing Model (CAPM) (3)	11.32%	11.68%	11.66%	11.79%
4.	Market Models Applied to Comparable Risk, Non-Price Regulated Companies (4)	11.20%	11.54%	11.49%	11.49%
5.	Indicated Common Equity Cost Rate before Adjustment for Unique Risk	9.85% - 10.85%	10.07% - 11.07%	10.03% - 11.03%	10.14% - 11.14%
6.	Business Risk Adjustment (5)		0.10%		
8.	Indicated Common Equity Cost Rate after Adjustment	9.95% - 10.95%	10.17% - 11.17%	10.13% - 11.13%	10.24% - 11.24%

- Notes:
- (1) From page 1 of Schedule DWD-3.
 - (2) From page 1 of Schedule DWD-4.
 - (3) From pages 1-4 of Schedule DWD-5.
 - (4) From page 1 of Schedule DWD-7.
 - (5) Business risk adjustment to reflect Carolina Water Services' unique risk compared to the Utility Proxy Group as detailed in the accompanying direct testimony, as shown on Schedule DWD-8.
 - (6) From page 1 of Schedule DWD-9.

W-354, Sub 400

Proxy Group of Seven Water Companies
CAPITALIZATION AND FINANCIAL STATISTICS (1)
2017 - 2021, Inclusive

	2021	2020	2019	2018	2017	
	(MILLIONS OF DOLLARS)					
Capitalization Statistics						
<u>Amount of Capital Employed</u>						
Total Permanent Capital	\$5,096.955	\$4,622.646	\$3,885.041	\$3,208.636	\$2,837.657	
Short-Term Debt	\$133.499	\$291.642	\$189.148	\$184.221	\$185.250	
Total Capital Employed	<u>\$5,230.454</u>	<u>\$4,914.288</u>	<u>\$4,074.189</u>	<u>\$3,392.857</u>	<u>\$3,022.907</u>	
<u>Indicated Average Capital Cost Rates (2)</u>						
Total Debt	3.55 %	3.84 %	4.18 %	4.75 %	4.83 %	
Preferred Stock	5.76 %	5.76 %	5.84 %	5.92 %	5.91 %	
<u>Capital Structure Ratios</u>						
Based on Total Permanent Capital:						<u>5 YEAR AVERAGE</u>
Long-Term Debt	50.00 %	50.26 %	47.11 %	45.15 %	45.58 %	47.62 %
Preferred Stock	0.05	0.05	0.06	0.09	0.10	0.07
Common Equity	49.95	49.69	52.83	54.76	54.32	52.31
Total	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>
Based on Total Capital:						
Total Debt, Including Short-Term Debt	51.86 %	53.47 %	50.52 %	48.37 %	48.93 %	50.63 %
Preferred Stock	0.05	0.05	0.06	0.08	0.09	0.07
Common Equity	48.10	46.48	49.43	51.54	50.98	49.30
Total	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>
<u>Financial Statistics</u>						
<u>Financial Ratios - Market Based</u>						
Earnings / Price Ratio	3.14 %	3.20 %	2.67 %	3.33 %	3.65 %	3.20 %
Market / Average Book Ratio	361.91	328.25	340.26	308.46	310.75	329.93
Dividend Yield	1.66	1.81	1.77	2.00	1.99	1.85
Dividend Payout Ratio	53.26	56.81	72.34	60.08	55.80	59.66
<u>Rate of Return on Average Book Common Equity</u>	11.26 %	10.49 %	9.48 %	10.12 %	11.31 %	10.53 %
<u>Total Debt / EBITDA (3)</u>	4.95 x	5.33 x	5.57 x	4.22 x	3.42 x	4.70 x
<u>Funds from Operations / Total Debt (4)</u>	11.66 %	12.11 %	14.55 %	21.37 %	22.87 %	16.51 %
<u>Total Debt / Total Capital</u>	51.86 %	53.47 %	50.52 %	48.37 %	48.93 %	50.63 %

Notes:

- (1) All capitalization and financial statistics for the group are the arithmetic average of the achieved results for each individual company in the group, and are based upon financial statements as originally reported in each year.
- (2) Computed by relating actual total debt interest or preferred stock dividends booked to average of beginning and ending total debt or preferred stock reported to be outstanding.
- (3) Total debt relative to EBITDA (Earnings before Interest, Income Taxes, Depreciation and Amortization).
- (4) Funds from operations (sum of net income, depreciation, amortization, net deferred income tax and investment tax credits, less total AFUDC) plus interest charges as a percentage of total debt.

Source of Information: Company Annual Forms 10-K

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W-354, Sub 400

Capital Structure Based upon Total Permanent Capital for the
Proxy Group of Seven Water Companies
2017 - 2021, Inclusive

	<u>2021</u>	<u>2020</u>	<u>2019</u>	<u>2018</u>	<u>2017</u>	<u>5 YEAR AVERAGE</u>
<u>American States Water Company</u>						
Long-Term Debt	37.56 %	40.72 %	31.87 %	36.54 %	37.75 %	36.89 %
Preferred Stock	0.00	0.00	0.00	0.00	0.00	0.00
Common Equity	62.44	59.28	68.13	63.46	62.25	63.11
Total Capital	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>
<u>American Water Works Company, Inc.</u>						
Long-Term Debt	58.75 %	59.93 %	58.59 %	56.55 %	55.81 %	57.93 %
Preferred Stock	0.02	0.02	0.03	0.05	0.07	0.04
Common Equity	41.23	40.05	41.38	43.40	44.12	42.03
Total Capital	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>
<u>California Water Service Group</u>						
Long-Term Debt	47.28 %	46.04 %	50.90 %	52.74 %	43.40 %	48.07 %
Preferred Stock	0.00	0.00	0.00	0.00	0.00	0.00
Common Equity	52.72	53.96	49.10	47.26	56.60	51.93
Total Capital	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>
<u>Essential Utilities Inc.</u>						
Long-Term Debt	53.28 %	54.42 %	44.23 %	56.06 %	52.26 %	52.05 %
Preferred Stock	0.00	0.00	0.00	0.00	0.00	0.00
Common Equity	46.72	45.58	55.77	43.94	47.74	47.95
Total Capital	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>
<u>Middlesex Water Company</u>						
Long-Term Debt	45.84 %	44.61 %	42.20 %	38.94 %	38.65 %	42.05 %
Preferred Stock	0.31	0.33	0.37	0.59	0.64	0.45
Common Equity	53.85	55.06	57.43	60.47	60.71	57.50
Total Capital	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>
<u>SIW Group</u>						
Long-Term Debt	59.69 %	59.79 %	59.05 %	32.67 %	48.20 %	51.88 %
Preferred Stock	0.00	0.00	0.00	0.00	0.00	0.00
Common Equity	40.31	40.21	40.95	67.33	51.80	48.12
Total Capital	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>
<u>The York Water Company</u>						
Long-Term Debt	47.64 %	46.31 %	42.95 %	42.52 %	43.02 %	44.49 %
Preferred Stock	0.00	0.00	0.00	0.00	0.00	0.00
Common Equity	52.36	53.69	57.05	57.48	56.98	55.51
Total Capital	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>
<u>Proxy Group of Seven Water Companies</u>						
Long-Term Debt	50.01 %	50.26 %	47.11 %	45.15 %	45.59 %	47.62 %
Preferred Stock	0.05	0.05	0.06	0.09	0.10	0.07
Common Equity	49.94	49.69	52.83	54.76	54.31	52.31
Total Capital	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>

Source of Information
Annual Forms 10-K

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Carolina Water Service Inc. of North Carolina
Indicated Common Equity Cost Rate Using the Discounted Cash Flow Model for the
Proxy Group of Seven Water Companies

	[1]	[2]	[3]	[4]	[5]	[6]	[7]
Proxy Group of Seven Water Companies	Average Dividend Yield (1)	Value Line Projected Five Year Growth in EPS (2)	Zack's Five Year Projected Growth Rate in EPS	Yahoo! Finance Projected Five Year Growth in EPS	Average Projected Five Year Growth in EPS (3)	Adjusted Dividend Yield (4)	Indicated Common Equity Cost Rate (5)
American States Water Company	1.73 %	5.50 %	NA %	4.40 %	4.95 %	1.77 %	6.72 %
American Water Works Company, Inc.	1.67	7.50	8.10	8.30	7.97	1.74	9.71
California Water Service Group	1.77	6.50	NA	11.70	9.10	1.85	10.95
Essential Utilities Inc.	2.25	10.00	6.10	6.80	7.63	2.34	9.97
Middlesex Water Company	1.19	4.50	NA	2.70	3.60	1.21	4.81
SIW Group	2.22	14.00	NA	9.80	11.90	2.35	14.25
The York Water Company	1.83	5.00	NA	4.90	4.95	1.88	6.83
						Average	9.03 %
						Median	9.71 %
						Average of Mean and Median	9.37 %

NA= Not Available

Notes:

- (1) Indicated dividend at 05/13/2022 divided by the average closing price of the last 60 trading days ending 05/13/2022 for each company.
- (2) From pages 2 through 8 of this Schedule.
- (3) Average of columns 2 through 4 excluding negative growth rates.
- (4) This reflects a growth rate component equal to one-half the conclusion of growth rate (from column 5) x column 1 to reflect the periodic payment of dividends (Gordon Model) as opposed to the continuous payment. Thus, for American States Water Company, $1.73\% \times (1 + (1/2 \times 4.95\%)) = 1.77\%$.
- (5) Column 5 + column 6.

Source of Information:

Value Line Investment Survey
www.zacks.com Downloaded on 05/13/2022
www.yahoo.com Downloaded on 05/13/2022

AMERICAN WATER

NYSE-AWK

RECENT PRICE

161.42

P/RATIO

22.6

(Trailing: 38.0)

Median: 24.0

RELATIVE P/E RATIO

1.26

DIV/YLD

1.6%

VALUE LINE

TIMELINESS

3

Lowered 6/25/21

SAFETY

4

New 7/25/08

TECHNICAL

4

Lowered 4/8/22

BETA

.85

(1.00 = Market)

18-Month Target Price Range

Low-High

Midpoint (% to Mid)

\$139-\$227

\$183 (15%)

2025-27 PROJECTIONS

Price

Gain

Ann'l Total

High

Low

185

125

(+15%)

(-25%)

5%

-4%

Institutional Decisions

202021

202021

444

465

To Buy

377

362

To Sell

150291

155734

156569

Percent

shares

traded

21

14

7

2006E

2007E

2008

2009

2010

2011

2012

2013

2014

2015

2016

2017

2018

2019

2020

2021

2022

2023

© VALUE LINE PUB. LLC

25-27

CAPITAL STRUCTURE as of 12/31/21

Total Debt \$10982 mil. Due in 5 Yrs \$2867 mil.

LT Debt \$10341 mil. LT Interest \$384 mil. (59% of Cap'l)

Leases, Uncapitalized: Annual rentals \$13.0 mil.

Pension Assets 12/21 \$2294.0 mil.

Oblig. \$1991.0 mil.

Pld Stock \$3.0 mil. Pld Div'd \$2 mil.

Common Stock 181,724,991 shares as of 2/10/22

MARKET CAP: \$29.3 billion (Large Cap)

CURRENT POSITION

2019

2020

12/31/21

(\$MILL.)

Cash Assets

91

576

136

Accts Receivable

294

321

271

Other

900

1009

1147

Current Assets

1285

1906

1554

Accts Payable

203

189

235

Debt Due

814

1611

641

Other

1028

1081

1265

Current Liab.

2045

2881

2141

ANNUAL RATES of change (per sh)

Past

5 Yrs.

Past

5 Yrs.

Est'd '18-'20

to '25-'27

Revenues

3.0%

3.5%

4.5%

"Cash Flow"

8.0%

7.0%

6.0%

Earnings

10.5%

8.0%

7.5%

Dividends

11.0%

11.5%

9.0%

Book Value

3.5%

4.5%

8.0%

QUARTERLY REVENUES (\$ mill.)

Cal-end

Mar.31

Jun.30

Sep.30

Dec.31

Full Year

2019

813

882

1013

902

3610

2020

844

931

1079

923

3777

2021

888

999

1082

951

3920

2022

895

1010

1110

985

4000

2023

925

1060

1190

1025

4200

EARNINGS PER SHARE A

Cal-end

Mar.31

Jun.30

Sep.30

Dec.31

Full Year

2019

.62

.94

1.33

.54

3.43

2020

.68

.97

1.46

.80

3.91

2021

.73

1.14

1.53

3.55

6.95

2022

.77

1.18

1.65

.90

4.50

2023

.85

1.25

1.80

.95

4.85

QUARTERLY DIVIDENDS PAID B

Cal-end

Mar.31

Jun.30

Sep.30

Dec.31

Full Year

2018

.415

.455

.455

.455

1.78

2019

.455

.50

.50

.50

1.96

2020

.50

.55

.55

.55

2.15

2021

.55

.6025

.6025

.6025

2.36

2022

.6025

(A) Diluted earnings. Excludes nonrecr. losses: '08, \$4.62; '09, \$2.63; '11, \$0.07. Disc. op's: '06, \$(0.04); '11, \$0.03; '12, \$(0.10); '13, \$(0.01). GAAP used as of 2014. Includes \$2.70 sh. gain from sale of HOS sub.in Q4,'21. Next earnings report due early May.

(B) Dividends paid in March, June, September, and December. ■ Div. reinvestment available.

(C) In millions. (D) Includes intangibles. On 12/31/21: \$1,231 billion, \$6.87/share.

(E) Pro forma numbers for '06 & '07.

ing for 21.5% of regulated revenues; New Jersey, 20.3%; Missouri, 13.9%. Has 6,400 employees. The Vanguard Corp. owns 11.7% of outstanding shares; BlackRock, Inc., 8.1%; officers & directors, less than 1.0% (4/21 Proxy). President & CEO: Susan N. Story. Chairman: George MacKenzie. Address: 1 Water Street, Camden, NJ 08102. Tel.: 856-346-8200. Internet: www.amwater.com.

American Water has been buying up small water districts for years. With its economies of scale, it is able to squeeze significantly more profits out of the same assets. This trend could even accelerate, as smaller utilities could be hit hard by the current inflationary environment.

There is a new caveat added to the mixture here. In general, utilities have done well over the past decade because inflation has remained very tame. This makes it more palatable for state regulators to pass along costs to customers. However, with the large jump in prices, it may be more difficult to do so. What's more, there is the possibility of regulatory lag, or a delay in when American Water makes outlays and when it is reimbursed. On the plus side, water utilities have enjoyed constructive relationships with their regulators in the past.

These shares do not have much to offer at this time. Even though the price of the stock has declined about 850 basis points more than the S&P 500 Index since our January report, total return potential to 2025-2027 is not attractive.

James A. Flood

April 8, 2022

Company's Financial Strength

B++

Stock's Price Stability

85

Price Growth Persistence

75

Earnings Predictability

95

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AMER. STATES WATER NYSE-AWR										RECENT PRICE	87.33	P/E RATIO	33.6	(Trailing: 34.2 Median: 27.0)	RELATIVE P/E RATIO	1.88	DIV'D YLD	1.8%	VALUE LINE
TIMELINESS	3	Raised 3/5/21	High: 18.2	15.3	24.1	33.1	38.7	44.1	47.2	58.4	69.6	96.0	96.6	103.8	103.4	103.4	103.4	103.4	Target Price Range
SAFETY	2	Raised 7/20/12	Low: 15.3	17.0	24.0	33.1	38.7	44.1	47.2	58.4	69.6	96.0	96.6	103.8	103.4	103.4	103.4	103.4	2025 2026 2027
TECHNICAL	3	Lowered 3/25/22	LEGENDS 1.35 x Dividends p sh divided by Interest Rate --- Relative Price Strength 2-for-1 split 9/13 Options: Yes Shaded area indicates recession																
BETA	.65	(1.00 = Market)	18-Month Target Price Range Low-High Midpoint (% to Mid) \$77-\$132 \$105 (20%)																
2025-27 PROJECTIONS																			
Price	95	Gain (+10%)	4%																
Low	70	Loss (-20%)	-3%																
Institutional Decisions																			
202021	3Q2021	4Q2021	Percent shares traded	24															
to Buy	126	146	157	16															
to Sell	117	101	117	8															
Hld's(000)	25636	26958	27394																
2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	% TOT. RETURN 2/22	
7.88	8.75	9.21	9.74	10.71	11.12	12.12	12.19	12.17	12.56	11.92	12.01	11.88	12.86	13.24	13.51	13.95	14.25	THIS STOCK	
1.45	1.65	1.69	1.70	2.11	2.13	2.48	2.65	2.67	2.81	2.70	2.96	2.84	3.26	3.34	3.64	3.75	4.15	VL ARITH. INDEX	
.67	.81	.78	.81	1.11	1.12	1.41	1.61	1.57	1.61	1.62	1.88	1.72	2.28	2.33	2.55	2.60	2.75	1 yr. 17.3	
.46	.48	.50	.51	.52	.55	.64	.76	.83	.87	.91	.99	1.06	1.16	1.28	1.40	1.52	1.65	3 yr. 23.9	
1.95	1.45	2.23	2.09	2.12	2.13	1.77	2.52	1.89	2.39	3.55	3.08	3.44	4.12	3.54	3.91	4.00	4.00	5 yr. 104.6	
8.32	8.77	8.97	9.70	10.13	10.84	11.80	12.72	13.24	12.77	13.52	14.45	15.19	16.33	17.39	18.57	19.45	20.65		
34.10	34.46	34.60	37.06	37.26	37.70	38.53	38.72	38.29	36.50	36.57	36.68	36.76	36.85	36.89	36.94	37.25	37.50		
27.7	24.0	22.6	21.2	15.7	15.4	14.3	17.2	20.1	24.6	25.6	25.7	34.0	34.4	34.3	33.2	33.2	33.2		
1.50	1.27	1.36	1.41	1.00	.97	.91	.97	1.06	1.24	1.34	1.29	1.84	1.83	1.76	1.82	1.82	1.82		
2.5%	2.5%	2.9%	2.9%	3.0%	3.2%	3.1%	2.7%	2.6%	2.2%	2.2%	2.0%	1.8%	1.5%	1.6%	1.7%	1.7%	1.7%		
CAPITAL STRUCTURE as of 12/31/21																			
Total Debt \$443.6 mill. Due in 5 Yrs \$33.5 mill.						466.9	472.1	465.8	458.6	436.1	440.6	436.8	473.9	488.2	498.9	520	535	Revenues per sh	
LT Debt \$412.2 mill. LT Interest \$22.8 mill. (38% of Cap'l)						54.1	62.7	61.1	60.5	59.7	69.4	63.9	84.3	86.4	94.3	95.0	105	105	"Cash Flow" per sh
						39.9%	36.3%	38.4%	38.4%	36.8%	36.0%	22.0%	22.6%	24.6%	24.4%	24.0%	24.0%	Earnings per sh A	
						2.5%	--	--	--	--	--	--	--	2.5%	--	1.0%	1.5%	Div'd Decl'd per sh B	
Leases, Uncapitalized: Annual rentals \$2.6 mill.						42.2%	39.8%	39.1%	41.1%	39.4%	38.0%	40.5%	44.4%	47.2%	46.1%	48.5%	48.5%	Cap'l Spending per sh	
Pension Assets-12/21 \$233.5 mill.						57.8%	60.2%	60.9%	58.9%	60.6%	62.0%	59.5%	55.6%	52.8%	53.9%	51.5%	51.5%	4.00	
Oblig. \$259.8 mill.						787.0	818.4	832.6	791.5	815.3	854.9	938.4	1082.5	1216.2	1272.6	1410	1500	Book Value per sh D	
Pd Stock None						917.8	981.5	1003.5	1060.8	1150.9	1205.0	1296.3	1415.7	1512.0	1626.0	1720	1800	Common Shs Outst'g C	
Common Stock 36,945,434 shs. as of 2/18/22						8.3%	8.9%	8.6%	9.0%	8.6%	9.3%	7.9%	8.9%	8.0%	8.3%	8.0%	8.0%	25.0	
						11.9%	12.7%	12.0%	13.0%	12.1%	13.1%	11.4%	14.0%	13.5%	13.8%	13.0%	13.5%	Avg Ann'l P/E Ratio	
						11.9%	12.7%	12.0%	13.0%	12.1%	13.1%	11.4%	14.0%	13.5%	13.8%	13.0%	13.5%	Relative P/E Ratio	
						6.6%	6.8%	5.7%	6.0%	5.3%	6.2%	4.5%	6.9%	6.1%	6.2%	5.5%	5.5%	Avg Ann'l Div'd Yield	
						45%	47%	53%	54%	56%	52%	61%	51%	55%	55%	58%	60%	2.6%	
BUSINESS: American States Water Co. operates as a holding company. Through its principal subsidiary, Golden State Water Co., it supplies water to 262,770 customers in 10 California counties. Service areas include the metropolitan areas of Los Angeles and Orange Counties. The company also provides electricity to 24,656 customers in Big Bear Lake and San Bernardino Cnty. Provides water & wastewater services to U.S. military bases through its ASUS subsidiary. Sold Chaparral City Wtr. of AZ. (6/11). Employs 808. BlackRock, Inc. owns 16.4% of out. shares; Vanguard, 12.0%; off. & dir., 1.0% (4/21 Proxy). Chairman: Lloyd Ross. Pres. & CEO: Robert Sprowls, Inc. CA. Address: 630 East Foothill Blvd., San Dimas, CA 91773. Tel.: 909-394-3600. Internet: www.aswater.com.																			
American States Water is still awaiting a decision on a major rate case. As we mentioned in our January report, the company's Golden States Water subsidiary agreed to a deal with the state's Public Advocate Office. The California Public Utility Commission (CPUC) must still approve the settlement, but a few issues remain unresolved. As part of the deal, the utility has agreed to invest over \$400 million over the next three-year period on upgrading its existing pipelines and other assets. Dividend growth prospects are bright. The company has an excellent track record of hiking the annual payout, as the distributions have increased by 8.0% and 9.0% annually, over the past five- and 10-year periods. We think that this pace can be sustained to 2025-2027. The company's private water business offers the chance to boost profitability. Through its ASUS subsidiary, it provides water services to domestic military bases. The government has determined that privatizing this service will be cheaper than doing it in house. ASUS has already won a number of 50-year contracts and should continue to do so as the pro-																			
gram is rolled out. In this segment, returns on equity are not capped by regulatory authorities. Inflation could present a problem for the utility industry. Soaring prices are increasing the cost of doing business. And while interim rate relief can be granted, utilities file petitions for rate increases every three years in California. The pending one is for the years 2022 to 2024 and may have underestimated the pace of rising expenses. In any case, much of the company's future will be determined by how it is treated by the CPUC. Shares of American States Water have underperformed of late. Since our January report, the value of the stock has declined 13%. This provides evidence that the stock might be more volatile than investors believe, despite a low Beta coefficient (.65), 2 Safety rank, and a high score for Earnings Predictability. We attribute the move downward to the spike in long-term interest. Indeed, the yield on the 10-year Treasury bond has risen almost 95 basis points from 1.51% at year-end 2021, to about 2.45% recently. James A. Flood																			
April 8, 2022																			

(A) Primary earnings. Excludes nonrecurring gains/losses; '06, '36; '08, (14c); '10, (23c); '11, 10c. Next earnings report due early May.
(B) Dividends historically paid in early March.
(C) In millions, adjusted for split.
(D) Includes intangibles. As of 12/31/21; \$1.1 million/\$0.03 a share.

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W-354, Sub 400

CALIFORNIA WATER NYSE-CWT										RECENT PRICE	58.80	P/RATIO	31.4	(Trailing: 30.0 Median: 27.0)	RELATIVE P/E RATIO	1.75	DIV'D YLD	1.7%	VALUE LINE
TIMELINESS 3		Lowered 10/29/21		High: 19.4 19.3 23.4 26.4 26.0 36.8 46.2 49.1 57.5 57.4 72.1 72.0		Low: 16.7 16.8 18.4 20.3 19.5 22.5 32.4 35.3 44.6 39.7 51.0 52.8		Target Price Range 2025 2026 2027		120 100 80 64 48 32 24 20 16 12 8									
SAFETY 3		Lowered 7/27/07		LEGENDS		1.33 x Dividends p sh divided by Interest Rate		Relative Price Strength		2-for-1 split 6/11		Options: Yes		Shaded area indicates recession					
TECHNICAL 3		Lowered 3/25/22																	
BETA .65		(1.00 = Market)																	
18-Month Target Price Range																			
Low-High		Midpoint (% to Mid)																	
\$50-\$91		\$71 (20%)																	
2025-27 PROJECTIONS																			
Price		Gain		Ann'l Total Return															
High		Low		75 50		(+30%) (-15%)		8% -2%											
Institutional Decisions																			
202021		3Q2021		4Q2021															
to Buy		113 133 155																	
to Sell		99 93 109																	
Mid(000)		39103 41511 42143																	
2006 2007 2008 2009		2010 2011		2012 2013		2014 2015		2016 2017		2018 2019		2020 2021		2022 2023		© VALUE LINE PUB. LLC		25-27	
8.10 8.88 9.90 10.82		11.05 12.00		13.34 12.23		12.50 12.22		12.70 13.89		14.53 14.72		15.78 14.72		15.40 15.80		Revenues per sh		16.40	
1.36 1.56 1.86 1.93		1.93 2.07		2.32 2.21		2.47 2.29		2.34 3.00		3.11 3.14		3.88 3.91		3.55 3.80		"Cash Flow" per sh		4.05	
.67 .75 .95 .98		.91 .86		1.02 1.02		1.19 .94		1.01 1.40		1.36 1.31		1.97 1.96		2.05 2.30		Earnings per sh A		2.55	
.58 .58 .59 .59		.60 .62		.63 .64		.65 .67		.69 .72		.75 .79		.85 .92		1.00 1.08		Div'd Decl'd per sh B		1.25	
2.14 1.84 2.41 2.66		2.97 2.83		3.04 2.58		2.76 3.69		4.77 5.40		5.65 5.64		5.93 5.46		5.85 6.00		Cap'l Spending per sh		6.45	
9.07 9.25 9.72 10.13		10.45 10.76		11.28 12.54		13.11 13.41		13.75 14.44		15.19 16.07		18.30 21.92		22.45 22.90		Book Value per sh C		23.60	
41.31 41.33 41.45 41.53		41.67 41.82		41.98 47.74		47.81 47.88		47.97 48.01		48.07 48.53		50.33 53.72		53.50 53.50		Common Shs Outst'g D		54.00	
29.2 26.1 19.8 19.7		20.3 21.3		17.9 20.1		19.7 24.8		29.6 26.9		30.3 39.3		24.9 30.5		30.5		Bold figures are Value Line estimates		24.0	
1.58 1.39 1.19 1.31		1.29 1.34		1.14 1.13		1.04 1.25		1.55 1.35		1.64 2.09		1.28 1.67		1.67		Relative P/E Ratio		1.30	
2.9% 3.0% 3.1% 3.1%		3.2% 3.4%		3.5% 3.1%		2.8% 2.9%		2.3% 1.9%		1.8% 1.5%		1.7% 1.5%		1.5%		Avg Ann'l Div'd Yield		2.0%	
CAPITAL STRUCTURE as of 12/31/21																			
Total Debt \$1096.0 mill. Due in 5 Yrs \$357.0 mill.																			
LT Debt \$1055.8 mill. LT Interest \$40.0 mill.																			
(Total interest coverage: 6.4x) (47% of Cap'l)																			
Pension Assets-12/21 \$810.5 mill.																			
Oblig. \$887.5 mill.																			
Pld Stock None																			
Common Stock 53,716,000 shs.																			
MARKET CAP: \$3.2 billion (Mid Cap)																			
CURRENT POSITION (SMILL.)		2019 2020 12/31/21																	
Cash Assets		42.7 44.6 78.4																	
Other		124.0 221.4 222.1																	
Current Assets		184.7 266.0 300.5																	
Accts Payable		108.5 131.7 144.4																	
Debt Due		197.0 375.1 40.2																	
Other		53.2 81.9 72.0																	
Current Liab.		358.7 588.7 256.6																	
ANNUAL RATES of change (per sh)		Past 10 Yrs. 5 Yrs. to '25-'27																	
Revenues		3.0% 4.0% 1.5%																	
"Cash Flow"		6.5% 9.0% 2.0%																	
Earnings		6.5% 11.0% 6.5%																	
Dividends		3.5% 5.0% 6.5%																	
Book Value		6.0% 7.0% 4.0%																	
QUARTERLY REVENUES (\$mill.)E		Mar.31 Jun.30 Sep.30 Dec.31		Full Year															
2019		126.1 179.0 232.6 176.9		714.6															
2020		126.5 175.5 204.1 189.1		794.3															
2021		147.7 213.1 256.7 173.4		790.9															
2022		155 215 260 195		825															
2023		160 220 265 200		845															
EARNINGS PER SHARE A		Mar.31 Jun.30 Sep.30 Dec.31		Full Year															
2019		d.16 .35 .88 .24		1.31															
2020		d.42 .11 1.94 .31		1.97															
2021		d.06 .75 1.20 .07		1.96															
2022		.10 .55 1.15 .25		2.05															
2023		.15 .60 1.20 .35		2.30															
QUARTERLY DIVIDENDS PAID B		Mar.31 Jun.30 Sep.30 Dec.31		Full Year															
2018		.1875 .1875 .1875 .1875		.75															
2019		.1975 .1975 .1975 .1975		.79															
2020		.2125 .2125 .2125 .2125		.85															
2021		.230 .230 .230 .230		.92															
2022		.250																	
(A) Basic EPS. Excl. nonrecurring gain (loss): '11, 4c. Next earnings report due early May.																			
(B) Dividends historically paid in late Feb., May, August, and Nov. ■ Div'd reinvestment plan																			
available.																			
(C) Incl. intangible assets. In '21 : \$36.8 mill., \$0.69/sh.																			
(D) In millions, adjusted for split.																			
(E) Excludes non-regulated revenues																			
Company's Financial Strength																			
Stock's Price Stability																			
Price Growth Persistence																			
Earnings Predictability																			
B++ 95 75 55																			
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MIDDLESEX WATER NDQ-MSEX										RECENT PRICE	102.71	P/E RATIO	48.7 (Trailing: 49.6 Median: 24.0)	RELATIVE P/E RATIO	2.72	DIV'D YLD	1.1%	VALUE LINE															
TIMELINESS 3 Lowered 6/4/21										High: 19.4	19.6	22.5	23.7	28.0	44.5	46.7	60.3	67.7	76.1	121.4	121.1	121.6	Target Price Range 2025 2026 2027										
SAFETY 2 New 10/21/11										Low: 16.5	17.5	18.6	19.1	21.2	25.0	32.2	34.0	51.0	48.8	67.1	94.6												
TECHNICAL 3 Raised 4/8/22										LEGENDS 120 x Dividends p sh divided by Interest Rate --- Relative Price Strength Options: Yes Shaded area indicates recession																							
BETA .70 (1.00 = Market)																																	
18-Month Target Price Range																																	
Low-High Midpoint (% to Mid)																																	
\$63-\$117 \$90 (-10%)																																	
2025-27 PROJECTIONS																																	
High Price Gain Ann'l Total																																	
Low 90 65 (-10%) (-35%) -2%																																	
Institutional Decisions																																	
202021 3Q2021 4Q2021																																	
to Buy 71 101 93																																	
to Sell 65 66 84																																	
Hld's(000) 10852 12996 12685																																	
Percent shares traded 12 8 4																																	
2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023																																	
6.16 6.50 6.79 6.75 6.60 6.50 6.98 7.19 7.26 7.77 8.16 8.00 8.42 7.72 8.10 8.17 8.45 8.70																							Revenues per sh 9.15										
1.33 1.49 1.53 1.40 1.55 1.46 1.56 1.72 1.84 1.97 2.17 2.24 2.89 2.90 3.25 3.28 3.20 3.45																							"Cash Flow" per sh 3.85										
.82 .87 .89 .72 .96 .84 .90 1.03 1.13 1.22 1.38 1.38 1.96 2.01 2.18 2.07 2.25 2.45																							Earnings per sh A 2.75										
.68 .69 .70 .71 .72 .73 .74 .75 .76 .78 .81 .86 .91 .98 1.04 1.11 1.18 1.25																							Div'd Decl'd per sh B= 1.40										
2.31 1.66 2.12 1.49 1.90 1.50 1.36 1.26 1.40 1.59 2.91 3.08 4.40 5.11 6.04 4.53 5.00 5.25																							Cap'l Spending per sh 6.00										
9.52 10.05 10.03 10.33 11.13 11.27 11.48 11.82 12.24 12.74 13.40 14.02 15.17 18.57 19.81 20.99 21.15 21.55																							Book Value per sh 22.20										
13.17 13.25 13.40 13.52 15.57 15.70 15.82 15.96 16.12 16.23 16.30 16.35 16.40 17.43 17.47 17.52 17.75 17.85																							Common Shs Outst'g C 18.00										
22.7 21.6 19.8 21.0 17.8 21.7 20.8 19.7 18.5 19.1 25.6 28.4 22.2 29.7 30.1 44.3 17.5 17.5																							Avg Ann'l P/E Ratio 28.0										
1.23 1.15 1.19 1.40 1.13 1.36 1.32 1.11 .97 .96 1.34 1.43 1.20 1.58 1.55 2.43 1.55 2.43																							Relative P/E Ratio 1.30										
3.7% 3.7% 4.0% 4.7% 4.2% 4.0% 4.0% 3.7% 3.7% 3.3% 2.3% 2.2% 2.1% 1.6% 1.6% 1.2% 1.5 1.5																							Avg Ann'l Div'd Yield 1.8%										
CAPITAL STRUCTURE as of 12/31/21																																	
Total Debt \$313.2 mill. Due in 5 Yrs \$43.7 mill.																																	
LT Debt \$306.5 mill. LT Interest \$7.5 mill.																																	
(Total interest coverage: 6.0x)																																	
(45% of Cap'l)																																	
Pension Assets-12/21 \$100.8 mill.																																	
Oblig. \$113.7 mill.																																	
Pfd Stock \$2.4 mill. Pfd Div'd \$: 1 mill.																																	
Common Stock 17,520,000 shs.																																	
MARKET CAP: \$1.8 billion (Mid Cap)																																	
CURRENT POSITION 2019 2020 12/31/21																																	
(SMILL.)																																	
Cash Assets 2.2 4.5 3.5																																	
Other 26.9 29.6 30.9																																	
Current Assets 29.1 34.1 34.4																																	
Accts Payable 23.3 30.4 21.1																																	
Debt Due 27.2 9.3 6.7																																	
Other 14.5 17.1 28.8																																	
Current Liab. 65.0 56.8 56.6																																	
ANNUAL RATES Past Past Est'd '19-'21																																	
of change (per sh) 10 Yrs. 5 Yrs. to '25-'27																																	
Revenues 2.0% .5% 2.5%																																	
"Cash Flow" 8.0% 9.5% 3.5%																																	
Earnings 9.5% 11.0% 4.5%																																	
Dividends 3.5% 6.0% 5.0%																																	
Book Value 6.0% 9.0% 2.0%																																	
QUARTERLY REVENUES (\$ mill.)																																	
Cal-ender Mar.31 Jun.30 Sep.30 Dec.31 Full Year																																	
2019 30.7 33.4 37.8 32.7 134.6																																	
2020 31.8 35.3 39.9 34.6 141.6																																	
2021 32.5 36.7 39.9 34.0 143.1																																	
2022 34.0 38.0 41.0 37.0 150																																	
2023 36.0 39.0 42.0 38.0 155																																	
EARNINGS PER SHARE A																																	
Cal-ender Mar.31 Jun.30 Sep.30 Dec.31 Full Year																																	
2019 .39 .49 .66 .46 2.01																																	
2020 .44 .55 .72 .47 2.18																																	
2021 .39 .62 .65 .41 2.07																																	
2022 .39 .56 .75 .55 2.25																																	
2023 .50 .60 .77 .58 2.45																																	
QUARTERLY DIVIDENDS PAID B=																																	
Cal-ender Mar.31 Jun.30 Sep.30 Dec.31 Full Year																																	
2018 .22375 .22375 .22375 .24 .91																																	
2019 .24 .24 .24 .2562 .98																																	
2020 .2562 .2562 .2562 .2725 1.04																																	
2021 .2725 .2725 .2725 .29 1.11																																	
2022 .29																																	
BUSINESS: Middlesex Water Company engages in the ownership and operation of regulated water utility systems in New Jersey, Delaware, and Pennsylvania. It also operates water and wastewater systems under contract on behalf of municipal and private clients in NJ and DE. Its Middlesex System provides water services to 61,000 retail customers, primarily in Middlesex County, New Jersey. In																																	
Middlesex Water reported lackluster share earnings in the December period. The New Jersey-based regulated water utility delivered fourth-quarter earnings of \$0.41 per share, down 13% from the previous-year figure. Despite decent water consumption and customer base growth in its Delaware water system, headwinds, such as higher labor and transportation fuel costs, along with an uptick in operation and maintenance expense, were a drag on the bottom line.																																	
But a recently effected rate hike (January) should provide some relief amidst a relatively challenging operating backdrop. While burdensome fuel inputs are not likely to abate in the near term, higher revenues from the abovementioned rate increase ought to largely offset rising expenses. A notable recovery in economic activity levels post-pandemic augurs well, too. All things considered, based on our model, 2022 revenues and earnings are poised to expand 5% and 9% this year, to \$150 million and \$2.25 per share, respectively.																																	
The company ought to continue to execute on its capital investment strategy.																																	
tegy. On top of completing an ozone treatment facility late last year, several projects are on tap, including upgrades at its Wellfield treatment facility, water infrastructure improvements in Woodbridge Township, and a recently announced lead service line replacement program to extricate any lead-related materials from New Jersey service lines. On balance, we think periodic rate hikes are in the cards over these project costs can be passed along to the consumer pending approval from state regulators. Middlesex stock has taken a breather since the start of the year. In our view, a combination of broader market turbulence and profit taking (MSEX shares etched an all-time high of \$120 in late December) likely weighed on share-price performance over the past three months. Even so, we are not recommending the stock at present. The equity, which is merely an Average (Timeliness: 3) selection for the year ahead, is currently trading beyond the upper end of our 3- to 5-year Target Price Range.																																	
Nicholas P. Patrikis																				April 8, 2022													

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SJW GROUP NYSE-SJW										RECENT PRICE	67.83	P/E RATIO	27.7 (Trailing: 33.6 Median: 23.0)	RELATIVE P/E RATIO	1.55	DIV'D YLD	2.1%	VALUE LINE											
TIMELINESS 3 Raised 3/4/22 SAFETY 3 New 4/22/11 TECHNICAL 3 Raised 4/8/22 BETA .80 (1.00 = Market) 18-Month Target Price Range Low-High Midpoint (% to Mid) \$59-\$100 \$80 (15%) 2025-27 PROJECTIONS Price Gain Ann'l Total High Low 100 65 (+45%) 12% (-5%) 1% Institutional Decisions 202021 3Q2021 4Q2021 to Buy 81 81 98 to Sell 64 53 68 Hld's(000) 21472 22567 21890 Percent shares traded 15 5										LEGENDS 150 x Dividends p sh divided by Interest Rate --- Relative Price Strength Options: Yes Shaded area indicates recession										Target Price Range 2025 2026 2027 160 120 100 80 60 40 20 15									
2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023										© VALUE LINE PUB. LLC 25-27																			
10.35 11.25 12.12 11.68 11.62 12.85 14.01 13.73 15.76 14.97 16.61 18.97 14.00 14.78 19.77 19.01 20.15 20.85 2.38 2.30 2.44 2.21 2.38 2.80 2.97 2.90 4.42 3.86 4.76 5.24 3.29 3.13 5.28 5.13 4.15 4.40 1.19 1.04 1.08 .81 .84 1.11 1.18 1.12 2.54 1.85 2.57 2.86 1.82 .82 2.14 2.03 2.50 2.75 .57 .61 .65 .66 .68 .69 .71 .73 .75 .78 .81 1.04 1.12 1.20 1.28 1.36 1.44 1.52 3.87 6.62 3.79 3.17 5.65 3.75 5.67 4.68 5.02 5.24 6.95 7.26 5.08 6.25 7.44 8.32 7.50 8.00 12.48 12.90 13.99 13.66 13.75 14.20 14.71 15.92 17.75 18.83 20.61 22.57 31.31 31.27 32.12 34.28 36.65 39.15 18.28 18.36 18.18 18.50 18.55 18.59 18.67 20.17 20.29 20.38 20.46 20.52 28.40 28.46 28.56 30.18 30.00 30.00 23.5 33.4 26.2 28.7 29.1 21.2 20.4 24.3 11.2 16.6 15.7 18.8 32.7 NMF 30.0 32.9 1.27 1.77 1.58 1.91 1.85 1.33 1.30 1.37 .59 .84 .82 .95 1.77 NMF 1.54 1.80 2.0% 1.7% 2.3% 2.8% 2.8% 2.9% 3.0% 2.7% 2.6% 2.5% 2.0% 1.9% 1.9% 1.9% 2.0% 2.0%										% TOT. RETURN 2/22 THIS STOCK VL ARITH. INDEX 1 yr. 6.8 6.9 3 yr. 13.2 49.6 5 yr. 47.9 71.1																			
CAPITAL STRUCTURE as of 12/31/21 Total Debt \$1532.0 mill. Due in 5 Yrs \$39.1 mill. LT Debt \$1492.9 mill. LT Interest \$50.0 mill. (LT Interest Coverage: 4.2x) (59% of Cap'l)										261.5 276.9 319.7 305.1 339.7 389.2 397.7 420.5 564.5 573.7 605 625 22.3 23.5 51.8 37.9 52.8 59.2 38.8 23.4 61.5 60.5 75.0 83.0 41.1% 38.7% 32.5% 38.1% 38.8% 36.7% 20.6% 26.4% 12.0% 12.2% 21.5% 21.0% -- -- -- -- -- -- -- -- 2.0% 1.5% 1.5% 1.5% 55.0% 51.1% 51.6% 49.8% 50.7% 48.2% 32.7% 59.1% 58.4% 59.1% 57.5% 54.0% 45.0% 48.9% 48.4% 50.2% 49.3% 51.8% 67.3% 40.9% 41.6% 40.9% 42.5% 46.0% 610.2 656.2 744.5 764.6 855.0 894.3 1320.7 2173.6 2204.7 2527.5 2575 2550 831.6 898.7 963.0 1036.8 1146.4 1239.3 1328.8 2206.5 2334.9 2497.5 2565 2650 5.0% 5.0% 8.3% 6.3% 7.4% 7.9% 3.9% 1.8% 4.0% 3.5% 3.5% 3.5% 8.1% 7.3% 14.4% 9.9% 12.5% 12.8% 4.4% 2.6% 6.7% 5.8% 7.0% 7.0% 8.1% 7.3% 14.4% 9.9% 12.5% 12.8% 4.4% 2.6% 6.7% 5.8% 7.0% 7.0% 3.3% 2.8% 10.2% 5.7% 8.6% 8.2% 1.8% NMF 2.7% 2.0% 3.0% 3.0% 59% 62% 29% 42% 31% 36% 60% NMF 59% 66% 58% 55%										Revenues per sh 22.15 "Cash Flow" per sh 5.30 Earnings per sh A 3.65 Div'd Decl'd per sh B 1.76 Cap'l Spending per sh 7.75 Book Value per sh 40.85 Common Shs Outst'g C 30.00 Avg Ann'l P/E Ratio 23.0 Relative P/E Ratio 1.30 Avg Ann'l Div'd Yield 2.1% Revenues (\$mill) 665 Net Profit (\$mill) 110 Income Tax Rate 21.0% AFUDC % to Net Profit 1.5% Long-Term Debt Ratio 45.0% Common Equity Ratio 55.0% Total Capital (\$mill) 2225 Net Plant (\$mill) 2825 Return on Total Cap'l 5.9% Return on Shr. Equity 9.0% Return on Com Equity 9.0% Retained to Com Eq 4.5% All Div's to Net Prof 48%									
Pension Assets-12/21 \$310.2 mill. Oblig. \$383.8 mill. Pld Stock None. Common Stock 30,181,000 shs. MARKET CAP: \$2.0 billion (Mid Cap)										BUSINESS: SJW Group engages in the production, purchase, storage, purification, distribution, and retail sale of water. It provides water service to approximately 231,000 connections with a total population of roughly one million people in the San Jose area and 16,000 connections that reach about 49,000 residents in the region between San Antonio and Austin, Texas. The company merged with Connecticut Water (10/19) which provides service to approx. 138,000 connections with a total population of 450,000 people. Has 751 employees. Officers and directors own about 8.0% of outstanding shares (3/22 proxy). Chairman & CEO: Eric Thornburg. Incorporated: California. Address: 110 West Taylor Street, San Jose, CA 95110. Telephone: (408) 279-7800. Internet: www.sjwater.com.																			
CURRENT POSITION 2019 2020 12/31/21 (\$MILL.) Cash Assets 17.9 9.3 10.9 Accts Receivable 36.3 58.1 53.7 Other 67.8 59.9 69.5 Current Assets 122.0 127.3 134.1 Accts Payable 34.9 34.2 30.4 Debt Due 22.3 76.2 39.1 Other 177.4 240.4 133.8 Current Liab. 234.6 350.8 203.3										recently received approval to recoup nearly \$2.0 million in excess deferred income taxes via increased rates. In addition, Connecticut regulators gave the nod for a 2.5% rate increase (went in to effect on January 1, 2022) which is linked to infrastructure-related projects. Lastly, Maine Water Company is now allowed to gradually lift rates, as state regulators recently approved a rate-hike request associated with a \$60 million treatment facility project. Amidst recent broader market turbulence, SJW's stock price has held up well relative to industry peers. The equity is roughly flat compared to where it was trading three months ago, versus an approximate 10% decline among other regulated water utilities. That said, investment appeal is limited at recent levels. Shares of SJW are ranked to move in line with the year-ahead broader market averages (Timeliness: 3). Moreover, total return potential three to five years hence is lackluster. All told, investors would be wise to wait for a more attractive entry point before starting a position here, in our view.																			
ANNUAL RATES of change (per sh) Past 10 Yrs. Past 5 Yrs. Est'd '19-'21 to '25-'27 Revenues 4.0% 2.5% 3.5% "Cash Flow" 6.0% .5% 2.5% Earnings 6.0% -6.5% 14.0% Dividends 6.5% 10.5% 5.5% Book Value 9.0% 11.5% 4.0%										We expect SJW to return to growth mode this year. Our fairly upbeat revenue forecast stems from a projected uptick in consumer water consumption, particularly in California, as economic conditions still have room to recover from pandemic-related shutdowns. Elsewhere, profitability ought to benefit from further operating efficiencies. The company and its subsidiaries have been active on the regulatory front. First, San Jose Water Company has an application pending with the California Public Utilities Commission for higher rates for the 2022-2024 window. On the East Coast, Connecticut Water Company																			
Cal-endar QUARTERLY REVENUES (\$ mill.) Full Year Mar.31 Jun.30 Sep.30 Dec.31 2019 77.7 103.0 114.0 126.0 420.5 2020 115.8 147.2 165.9 135.6 564.5 2021 114.8 152.2 166.9 139.8 573.7 2022 125 155 175 150 605 2023 130 160 180 155 625										NICHOLAS P. PATRIKIS April 8, 2022																			
Cal-endar EARNINGS PER SHARE A Full Year Mar.31 Jun.30 Sep.30 Dec.31 2019 .21 .47 .33 d.19 .82 2020 .08 .69 .91 .46 2.14 2021 .09 .69 .64 .60 2.03 2022 .18 .77 .90 .65 2.50 2023 .23 .82 .95 .75 2.75										Company's Financial Strength B+ Stock's Price Stability 85 Price Growth Persistence 65 Earnings Predictability 45																			
Cal-endar QUARTERLY DIVIDENDS PAID B Full Year Mar.31 Jun.30 Sep.30 Dec.31 2018 .28 .28 .28 .28 1.12 2019 .30 .30 .30 .30 1.20 2020 .32 .32 .32 .32 1.28 2021 .34 .34 .34 .34 1.36 2022 .36										To subscribe call 1-800-VALUELINE																			
(A) Diluted earnings. Excludes nonrecurring losses: '06, \$16.36; '08, \$1.22; '10, \$0.46. GAAP accounting as of 2013. Next earnings report due early May. Quarterly egs. may not add due to rounding. (B) Dividends historically paid in early March, June, September, and December. ■ Div'd reinvestment plan available. (C) In millions. (D) Paid special dividend of \$0.17 per share on 11/17.																													
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Nicholas P. Patrikis

April 8, 2022

ESSENTIAL UTIL. NYSE-WTRG

RECENT PRICE 50.04

P/E RATIO 28.0/ (Trailing: 30.0) (Median: 25.0)

RELATIVE P/E RATIO 1.56

DIV YLD 2.2%

VALUE LINE

TIMELINESS 4 Lowered 3/18/22

SAFETY 3 Lowered 1/8/21

TECHNICAL 4 Lowered 4/8/22

BETA .95 (1.00 = Market)

18-Month Target Price Range

Low-High \$42-\$72

Midpoint (\$% to Mid) \$57 (15%)

2025-27 PROJECTIONS

Price 70

Gain (+40%) 45

Ann'l Total Return 11% Nil

Institutional Decisions

202021 302021 402021

To Buy 244 245 313

To Sell 231 223 208

Hld's(000) 171680 174820 178560

Percent shares traded 10 5

2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023

3.23 3.61 3.71 3.93 4.21 4.10 4.32 4.32 4.37 4.61 4.62 4.56 4.71 4.03 5.96 7.43 7.85 8.25

1.01 1.10 1.14 1.29 1.42 1.45 1.51 1.82 1.89 1.87 2.07 2.12 1.90 1.73 2.21 2.89 3.00 3.20

.56 .57 .58 .62 .72 .83 .87 1.16 1.20 1.14 1.32 1.35 1.08 1.04 1.12 1.67 1.80 1.95

.35 .38 .41 .44 .47 .50 .54 .58 .63 .69 .74 .79 .85 .91 .97 1.04 1.14 1.25

1.64 1.43 1.58 1.66 1.89 1.90 1.98 1.73 1.84 2.07 2.16 2.69 2.78 2.49 3.41 4.04 3.90 3.85

5.57 5.85 6.26 6.50 6.81 7.21 7.90 8.63 9.27 9.78 10.43 11.02 11.28 17.58 19.09 20.50 21.45 22.30

165.41 166.75 169.21 170.61 172.46 173.60 175.43 177.93 178.59 176.54 177.39 177.71 178.09 220.76 245.39 252.87 255.00 260.00

34.7 32.0 24.9 23.1 21.1 21.3 21.9 21.2 20.8 23.5 23.9 24.7 32.6 39.1 39.6 28.3 26.0 25.0

1.87 1.70 1.50 1.54 1.34 1.34 1.39 1.19 1.09 1.18 1.25 1.24 1.76 2.08 2.03 1.55 1.45 1.45

1.8% 2.1% 2.8% 3.1% 3.1% 2.8% 2.8% 2.4% 2.5% 2.6% 2.3% 2.4% 2.4% 2.2% 2.2% 2.2% 2.2% 2.7%

Revenues per sh 8.95

"Cash Flow" per sh 4.25

Earnings per sh 2.00

Div'd Decl'd per sh 1.55

Cap'l Spending per sh 3.80

Book Value per sh 26.90

Common Shs Outst'g 280.00

Avg Ann'l P/E Ratio 16.0

Relative P/E Ratio 1.45

Avg Ann'l Div'd Yield 2.7%

CAPITAL STRUCTURE as of 3/13/21

Total Debt \$597.9 mill. Due in 5 Yrs \$882.1 mill.

LT Debt \$5779.5 mill. LT Interest \$200.0 mill. (53% of Cap'l)

757.8 768.6 779.9 814.2 819.9 809.5 838.1 889.7 1462.7 1878.1 2000 2150

153.1 205.0 213.9 201.8 234.2 239.7 192.0 224.5 284.8 431.6 460 505

39.0% 10.0% 10.5% 6.9% 8.2% 6.6% -- -- -- -- 5.0% 10.0%

-- 1.1% 2.4% 3.1% 3.8% 6.3% 6.8% 7.2% 4.5% 4.8% 5.0% 5.0%

52.7% 48.9% 48.5% 50.3% 48.4% 50.6% 54.4% 43.1% 54.0% 52.7% 54.0% 54.5%

47.3% 51.1% 51.5% 49.7% 51.6% 49.4% 45.6% 56.9% 46.0% 47.3% 46.0% 45.5%

2929.7 3003.6 3216.0 3469.5 3587.7 3965.4 4407.8 6824.2 10192 10964 11975 12800

3936.2 4167.3 4402.0 4688.9 5001.6 5399.9 5930.3 6345.8 9512.9 10252 10900 11600

6.6% 8.0% 7.8% 6.9% 7.6% 7.1% 5.5% 4.2% 3.7% 4.8% 5.5% 5.5%

11.0% 13.4% 12.9% 11.7% 12.7% 12.2% 9.6% 5.8% 6.1% 8.3% 8.5% 8.5%

11.0% 13.4% 12.9% 11.7% 12.7% 12.2% 9.6% 5.8% 6.1% 8.3% 8.5% 8.5%

4.3% 6.7% 6.1% 4.7% 5.6% 5.1% 2.1% .9% 1.1% 3.3% 3.0% 3.0%

61% 50% 52% 60% 56% 59% 79% 84% 82% 60% 63% 64%

Revenues (\$mill) 2500

Net Profit (\$mill) 630

Income Tax Rate 15.0%

AFUDC % to Net Profit 6.0%

Long-Term Debt Ratio 53.0%

Common Equity Ratio 47.0%

Total Capital (\$mill) 16000

Net Plant (\$mill) 13500

Return on Total Cap'l 5.5%

Return on Shr. Equity 8.5%

Return on Com Equity 8.5%

Retained to Com Eq 2.5%

All Div'ds to Net Prof 69%

Pension Assets-12/21 \$433.1 mill.

Oblig. \$452.9 mill.

Pld Stock None

Common Stock 252,875,079 shares as of 5/11/22

MARKET CAP: \$12.7 billion (Large Cap)

CURRENT POSITION 2019 2020 12/31/21 (\$MILL.)

Cash Assets 1868.9 4.8 10.6

Receivables 67.7 154.8 141.0

Inventory (AvgCst) 18.4 58.4 109.6

Other 58.3 162.2 176.6

Current Assets 2012.7 380.2 437.8

Accts Payable 74.9 177.5 192.9

Debt Due 130.8 162.6 197.1

Other 113.1 263.8 285.1

Current Liab. 318.8 603.9 675.1

ANNUAL RATES Past Past Est'd '19-'21 of change (per sh) 10 Yrs. 5 Yrs. to '25-'27

Revenues 3.5% 5.0% 7.5%

"Cash Flow" 5.0% 3.0% 10.0%

Earnings 6.0% 1.0% 10.0%

Dividends 7.5% 7.0% 8.0%

Book Value 11.0% 14.0% 6.0%

Cal-endar QUARTERLY REVENUES (\$ mill.) Full Year

Mar.31 Jun.30 Sep.30 Dec.31

2019 201.1 218.9 243.6 226.1 889.7

2020 255.6 384.5 348.6 474.0 1462.7

2021 583.5 397.0 361.9 535.7 1878.1

2022 610 420 420 550 2000

2023 630 445 500 575 2150

Cal-endar EARNINGS PER SHARE A Full Year

Mar.31 Jun.30 Sep.30 Dec.31

2019 .09 .25 .38 .28 1.04

2020 .21 .29 .22 .40 1.12

2021 .72 .32 .19 .44 1.67

2022 .73 .33 .29 .45 1.80

2023 .78 .37 .33 .47 1.95

Cal-endar QUARTERLY DIVIDENDS PAID B Full Year

Mar.31 Jun.30 Sep.30 Dec.31

2018 .2047 .2047 .219 .219 .85

2019 .219 .219 .2343 .2343 .91

2020 .2343 .2343 .2507 .2507 .97

2021 .2507 .2507 .2682 .2682 1.04

2022 .2682

BUSINESS: Essential Utilities, Inc. became the new name for Aqua America on Feb. 3, 2020, to reflect the acquisition of Peoples, a natural gas utility, which occurred in 3/20. In 2021, Aqua Amer. provided water and wastewater services to about 5 million people in PA, OH, TX, IL, NC, NJ, IN, VA NS WS. Employs 3,211. Acquired AquaSource, 7/13; N. Maine Util., 7/15; and others. Water respn.

for 52% of revenues in 2021; residential, 30%; commercial, 8.0%; industrial, wastewater & other, 14%. Gas 46%; other, 2.0%. Off. & dir. own less than 1% of the common stock; BlackRock, 10.6%; Vanguard, 9.7%; Can. Pen. Plan 8.6% (3/22 proxy). Pres. & CEO: Christopher Franklin, Inc. PA Addr.: 762 W Lancaster Ave., Bryn Mawr, PA 19010. Tel.: 610-525-1400. Int.: www.essentialco.

ment of the business. It will remain tilted in the former's favor in the years ahead but gas ought to start getting a larger share of the outlays.

Finances will likely stay in the average range. At 53% of total capital, long-term debt is manageable. Over the next two years, this percentage may well rise slightly before stabilizing later in the decade.

Inflation remains a question mark. While there are measures that exist to recoup higher expenses, state authorities can often delay reimbursements to utilities. Hence, should costs continue to spike at the current pace, more of Essentials' fate will be determined by regulators.

These shares have outperformed others in the Water Industry this year. The price of the equity has fallen less than 7% in 2022. While this is slightly worse than the broader markets, it is much better than the double-digits losses posted by most in this group. Our ranking system pegs AWK to lag most stocks in the year ahead. Moreover, its total return potential through 2025-2027 is below average.

James A. Flood April 8, 2022

(A) Diluted eggs. Excl. nonrec. gains: '12, 18¢. Excl. gain from disc. operations: '12, 7¢; '13, 9¢; '14, 11¢. Quarterly EPS do not add in '19 due to a large change in the number of shares

outstanding in the Dec. period. Next earnings report early May. **(B)** Dividends historically paid in early March, June, Sept., & Dec. ■ Div'd. reinvestment plan available (5% discount).

(C) In millions, adjusted for stock split.
(D) Includes intangibles: 12/31/21, \$1.231 bill./\$4.87 a share.

Company's Financial Strength	B+
Stock's Price Stability	90
Price Growth Persistence	65
Earnings Predictability	60

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(A) Diluted earnings. Next earnings report due early May. (B) Dividends historically paid in late February, June, September, and December.	(C) In millions, adjusted for split.	<table><tr><td>Company's Financial Strength</td><td>B+</td></tr><tr><td>Stock's Price Stability</td><td>80</td></tr><tr><td>Price Growth Persistence</td><td>70</td></tr><tr><td>Earnings Predictability</td><td>100</td></tr></table>	Company's Financial Strength	B+	Stock's Price Stability	80	Price Growth Persistence	70	Earnings Predictability	100
Company's Financial Strength	B+									
Stock's Price Stability	80									
Price Growth Persistence	70									
Earnings Predictability	100									
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W-354, Sub 400

Carolina Water Service Inc. of North Carolina
Summary of Risk Premium Models for the
Proxy Group of Seven Water Companies

	Base Year (Current Interest Rates)	Projected Rate Year 1 (2023 Proj Interest Rates)	Projected Rate Year 2 (2024 Proj Interest Rates)	Projected Rate Year 3 (2025 Proj Interest Rates)
Predictive Risk Premium Model (PRPM) (1)	11.37 %	12.21 %	12.18 %	12.48 %
Risk Premium Using an Adjusted Total Market Approach (2)	10.87 %	11.30 %	11.20 %	11.32 %
Average	11.12 %	11.76 %	11.69 %	11.90 %

Notes:

- (1) From pages 2 through 5 of this Schedule.
(2) From page 6 of this Schedule.

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Dec 05 2022

W-354, Sub 400

Carolina Water Service Inc. of North Carolina

Indicated ROE

Derived by the Predictive Risk Premium Model (1)

Using Current Interest Rates

	[1]	[2]	[3]	[4]	[5]	[6]	[7]
Proxy Group of Seven Water Companies	L.T Average Predicted Variance	Spot Predicted Variance	Recommended Variance (2)	GARCH Coefficient	Predicted Risk Premium (3)	Risk-Free Rate (4)	Indicated ROE (5)
American States Water Company	0.38%	0.42%	0.38%	1.8324	8.73%	2.49%	11.22%
American Water Works Company, Inc.	0.27%	0.38%	0.27%	4.7663	16.74%	2.49%	NMF
California Water Service Group	0.33%	0.53%	0.33%	1.8760	7.58%	2.49%	10.07%
Essential Utilities Inc.	0.44%	0.47%	0.44%	2.2107	12.41%	2.49%	14.90%
Middlesex Water Company	0.33%	0.82%	0.33%	2.0161	8.24%	2.49%	10.73%
SJW Group	0.41%	0.36%	0.41%	1.4808	7.60%	2.49%	10.09%
The York Water Company	0.47%	0.43%	0.47%	1.8732	11.04%	2.49%	13.53%
						Average	11.76%
						Median	10.98%
						Average of Mean and Median	11.37%

NMF = Not Meaningful Figure

Notes:

- (1) The Predictive Risk Premium Model uses historical data to generate a predicted variance and a GARCH coefficient. The historical data used are the equity risk premiums for the first available trading month as reported by Bloomberg Professional Services.
- (2) Based on the long-term average predicted variance.
- (3) $(1 + (\text{Column [3]} * \text{Column [4]})^{0.12}) - 1$.
- (4) From note 2 on page 5 of Schedule DWD-5.
- (5) Column [5] + Column [6].

W-354, Sub 400

Carolina Water Service Inc. of North Carolina

Indicated ROE

Derived by the Predictive Risk Premium Model (1)

Using Projected 2023 Interest Rates

	[1]	[2]	[3]	[4]	[5]	[6]	[7]
Proxy Group of Seven Water Companies	L.T Average Predicted Variance	Spot Predicted Variance	Recommended Variance (2)	GARCH Coefficient	Predicted Risk Premium (3)	Risk-Free Rate (4)	Indicated ROE (5)
American States Water Company	0.38%	0.42%	0.38%	1.8324	8.73%	3.33%	12.06%
American Water Works Company, Inc.	0.27%	0.38%	0.27%	4.7663	16.74%	3.33%	NMF
California Water Service Group	0.33%	0.53%	0.33%	1.8760	7.58%	3.33%	10.91%
Essential Utilities Inc.	0.44%	0.47%	0.44%	2.2107	12.41%	3.33%	15.74%
Middlesex Water Company	0.33%	0.82%	0.33%	2.0161	8.24%	3.33%	11.57%
SJW Group	0.41%	0.36%	0.41%	1.4808	7.60%	3.33%	10.93%
The York Water Company	0.47%	0.43%	0.47%	1.8732	11.04%	3.33%	14.37%
						Average	12.60%
						Median	11.82%
						Average of Mean and Median	12.21%

NMF = Not Meaningful Figure

Notes:

- (1) The Predictive Risk Premium Model uses historical data to generate a predicted variance and a GARCH coefficient. The historical data used are the equity risk premiums for the first available trading month as reported by Bloomberg Professional Services.
- (2) Based on the long-term average predicted variance.
- (3) $(1 + (\text{Column [3]} * \text{Column [4]})^{0.12}) - 1$.
- (4) From note 3 on page 5 of Schedule DWD-5.
- (5) Column [5] + Column [6].

W-354, Sub 400

Carolina Water Service Inc. of North Carolina

Indicated ROE

Derived by the Predictive Risk Premium Model (1)

Using Projected 2024 Interest Rates

	[1]	[2]	[3]	[4]	[5]	[6]	[7]
Proxy Group of Seven Water Companies	L.T Average Predicted Variance	Spot Predicted Variance	Recommended Variance (2)	GARCH Coefficient	Predicted Risk Premium (3)	Risk-Free Rate (4)	Indicated ROE (5)
American States Water Company	0.38%	0.42%	0.38%	1.8324	8.73%	3.30%	12.03%
American Water Works Company, Inc.	0.27%	0.38%	0.27%	4.7663	16.74%	3.30%	NMF
California Water Service Group	0.33%	0.53%	0.33%	1.8760	7.58%	3.30%	10.88%
Essential Utilities Inc.	0.44%	0.47%	0.44%	2.2107	12.41%	3.30%	15.71%
Middlesex Water Company	0.33%	0.82%	0.33%	2.0161	8.24%	3.30%	11.54%
SJW Group	0.41%	0.36%	0.41%	1.4808	7.60%	3.30%	10.90%
The York Water Company	0.47%	0.43%	0.47%	1.8732	11.04%	3.30%	14.34%
						Average	12.57%
						Median	11.79%
						Average of Mean and Median	12.18%

NMF = Not Meaningful Figure

Notes:

- (1) The Predictive Risk Premium Model uses historical data to generate a predicted variance and a GARCH coefficient. The historical data used are the equity risk premiums for the first available trading month as reported by Bloomberg Professional Services.
- (2) Based on the long-term average predicted variance.
- (3) $(1 + (\text{Column [3]} * \text{Column [4]})^{0.12}) - 1$.
- (4) From note 4 on page 5 of Schedule DWD-5.
- (5) Column [5] + Column [6].

W-354, Sub 400

Carolina Water Service Inc. of North Carolina

Indicated ROE

Derived by the Predictive Risk Premium Model (1)

Using Projected 2025 Interest Rates

	[1]	[2]	[3]	[4]	[5]	[6]	[7]
Proxy Group of Seven Water Companies	L.T Average Predicted Variance	Spot Predicted Variance	Recommended Variance (2)	GARCH Coefficient	Predicted Risk Premium (3)	Risk-Free Rate (4)	Indicated ROE (5)
American States Water Company	0.38%	0.42%	0.38%	1.8324	8.73%	3.60%	12.33%
American Water Works Company, Inc.	0.27%	0.38%	0.27%	4.7663	16.74%	3.60%	NMF
California Water Service Group	0.33%	0.53%	0.33%	1.8760	7.58%	3.60%	11.18%
Essential Utilities Inc.	0.44%	0.47%	0.44%	2.2107	12.41%	3.60%	16.01%
Middlesex Water Company	0.33%	0.82%	0.33%	2.0161	8.24%	3.60%	11.84%
SJW Group	0.41%	0.36%	0.41%	1.4808	7.60%	3.60%	11.20%
The York Water Company	0.47%	0.43%	0.47%	1.8732	11.04%	3.60%	14.64%
						Average	12.87%
						Median	12.09%
						Average of Mean and Median	12.48%

NMF = Not Meaningful Figure

Notes:

- (1) The Predictive Risk Premium Model uses historical data to generate a predicted variance and a GARCH coefficient. The historical data used are the equity risk premiums for the first available trading month as reported by Bloomberg Professional Services.
- (2) Based on the long-term average predicted variance.
- (3) $(1 + (\text{Column [3]} * \text{Column [4]})^{0.12}) - 1$.
- (4) From note 5 on page 5 of Schedule DWD-5.
- (5) Column [5] + Column [6].

W-354, Sub 400

Carolina Water Service Inc. of North Carolina
Indicated Common Equity Cost Rate
Through Use of a Risk Premium Model
Using an Adjusted Total Market Approach

<u>Line No.</u>		<u>Results using Current Interest Rates</u>	<u>Results using Projected 2023 Interest Rates</u>	<u>Results using Projected 2024 Interest Rates</u>	<u>Results using Projected 2025 Interest Rates</u>
1.	Prospective Yield on Aaa Rated Corporate Bonds (1)		4.45 %	4.20	4.50
2.	Adjustment to Reflect Yield Spread Between Aaa Rated Corporate Bonds and A2 Rated Public Utility Bonds		<u>0.51 (2)</u>	<u>0.51</u>	<u>0.51</u>
3.	Adjusted Prospective Yield on A2 Rated Public Utility Bonds		4.96 %	4.71 %	5.01 %
4.	Current Yield on A2 Rated Public Utility Bonds (3)	3.99 %			
5.	Adjustment to Reflect Bond Rating Difference of Proxy Group (4)	<u>0.10</u>	<u>0.10</u>	<u>0.10</u>	<u>0.10</u>
6.	Adjusted Prospective Bond Yield	4.09 %	5.06 %	4.81 %	5.11 %
7.	Equity Risk Premium (5)	<u>6.78</u>	<u>6.24</u>	<u>6.39</u>	<u>6.21</u>
8.	Risk Premium Derived Common Equity Cost Rate	<u>10.87 %</u>	<u>11.30 %</u>	<u>11.20 %</u>	<u>11.32 %</u>

- Notes: (1) Consensus forecast of Moody's Aaa Rated Corporate bonds from Blue Chip Financial Forecasts (see pages 13 and 14 of this Schedule).
(2) The average yield spread of A2 rated public utility bonds over Aaa rated corporate bonds of 0.51% from page 7 of this Schedule.
(3) Three-month average A2-rated utility bond yield ending April 2022 as shown on page 7 of this Schedule.
(4) Adjustment to reflect the A3 Moody's long-term rating of the Utility Proxy Group as shown on page 8 of this Schedule. The 0.1% upward adjustment is derived by taking 1/3 of the spread between A2 and Baa2 Public Utility Bonds ($1/3 * 0.29\% = 0.10\%$) as derived from page 7 of this Schedule.
(5) From page 10 of this Schedule.

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Carolina Water Service Inc. of North Carolina
Interest Rates and Bond Spreads for
Moody's Corporate and Public Utility Bonds

Selected Bond Yields

	[1]	[2]	[3]
	<u>Aaa Rated Corporate Bond</u>	<u>A2 Rated Public Utility Bond</u>	<u>Baa2 Rated Public Utility Bond</u>
Apr-2022	3.75 %	4.30 %	4.60 %
Mar-2022	3.43	3.98	4.28
Feb-2022	<u>3.25</u>	<u>3.68</u>	<u>3.95</u>
Average	<u>3.48 %</u>	<u>3.99 %</u>	<u>4.28 %</u>

Selected Bond Spreads

A2 Rated Public Utility Bonds Over Aaa Rated Corporate Bonds:

0.51 % (1)

Baa2 Rated Public Utility Bonds Over A2 Rated Public Utility Bonds:

0.29 % (2)

Notes:

(1) Column [2] - Column [1].

(2) Column [3] - Column [2].

Source of Information:

Bloomberg Professional Services

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W-354, Sub 400

Carolina Water Service Inc. of North Carolina
Comparison of Long-Term Issuer Ratings for the
Proxy Group of Seven Water Companies

	Moody's		Standard & Poor's	
	Long-Term Issuer Rating		Long-Term Issuer Rating	
	May 2022		May 2022	
<u>Proxy Group of Seven Water Companies</u>	<u>Long-Term Issuer Rating</u>	<u>Numerical Weighting (1)</u>	<u>Long-Term Issuer Rating</u>	<u>Numerical Weighting (1)</u>
American States Water Company (2)	A2	6.0	A+	5.0
American Water Works Company, Inc. (3)	A3	7.0	A	6.0
California Water Service Group	NR	--	A+	5.0
Essential Utilities Inc. (4)	Baa1	8.0	A	6.0
Middlesex Water Company	NR	--	A	6.0
SJW Group (5)	NR	--	A/A-	6.5
The York Water Company	NR	--	A-	7.0
Average	<u>A3</u>	<u>7.0</u>	<u>A</u>	<u>5.9</u>

Notes:

- (1) From page 9 of this Schedule.
- (2) Ratings that of Golden State Water Company.
- (3) Ratings that of New Jersey and Pennsylvania American Water Companies.
- (4) Ratings that of PNG Companies and Aqua Pennsylvania, Inc.
- (5) Ratings that of San Jose Water Company and Connecticut Water Inc.

Source Information: Moody's Investors Service
Standard & Poor's Global Utilities Rating Service

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Dec 05 2022

W-354, Sub 400

Numerical Assignment for
Moody's and Standard & Poor's Bond Ratings

Moody's Bond Rating	Numerical Bond Weighting	Standard & Poor's Bond Rating
Aaa	1	AAA
Aa1	2	AA+
Aa2	3	AA
Aa3	4	AA-
A1	5	A+
A2	6	A
A3	7	A-
Baa1	8	BBB+
Baa2	9	BBB
Baa3	10	BBB-
Ba1	11	BB+
Ba2	12	BB
Ba3	13	BB-
B1	14	B+
B2	15	B
B3	16	B-

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Dec 05 2022

W-354, Sub 400

Carolina Water Service Inc. of North Carolina
Judgment of Equity Risk Premium for the
Results using Current Interest Rates

Line No.		Results using Current Interest Rates	Results Using Projected 2023 Interest Rates	Results Using Projected 2024 Interest Rates	Results Using Projected 2025 Interest Rates
1.	Calculated equity risk premium based on the total market using the beta approach (1)	7.72 %	7.20 %	7.35 %	7.17 %
2.	Mean equity risk premium based on a study using the holding period returns of public utilities with A2 rated bonds (2)	<u>5.83</u>	<u>5.28</u>	<u>5.42</u>	<u>5.25</u>
3.	Average equity risk premium	<u><u>6.78</u></u> %	<u><u>6.24</u></u> %	<u><u>6.39</u></u> %	<u><u>6.21</u></u> %

Notes: (1) From page 11 of this Schedule.
(2) From page 15 of this Schedule.

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Dec 05 2022

W-354, Sub 400

Carolina Water Service Inc. of North Carolina
Derivation of Equity Risk Premium Based on the Total Market Approach
Using the Beta for the
Proxy Group of Seven Water Companies

<u>Line No.</u>	<u>Equity Risk Premium Measure</u>	<u>Results using Current Interest Rates</u>	<u>Results Using Projected 2023 Interest Rates</u>	<u>Results Using Projected 2024 Interest Rates</u>	<u>Results Using Projected 2025 Interest Rates</u>
1.	Ibbotson Equity Risk Premium (1)	6.13 %	6.13 %	6.13 %	6.13 %
2.	Regression on Ibbotson Risk Premium Data (2)	9.16	8.02	8.34	7.96
3.	Ibbotson Equity Risk Premium based on PRPM (3)	8.35	8.35	8.35	8.35
4.	Equity Risk Premium Based on Value Line Summary and Index (4)	9.61	8.71	8.96	8.66
5.	Equity Risk Premium Based on Value Line S&P 500 Companies (5)	12.87	11.97	12.22	11.92
6.	Equity Risk Premium Based on Bloomberg S&P 500 Companies (6)	10.37	9.48	9.73	9.43
7.	Conclusion of Equity Risk Premium	9.41 %	8.78 %	8.96 %	8.74 %
8.	Adjusted Beta (7)	0.82	0.82	0.82	0.82
9.	Forecasted Equity Risk Premium	7.72 %	7.20 %	7.35 %	7.17 %

Notes provided on page 12 of this Schedule.

W-354, Sub 400

Carolina Water Service Inc. of North Carolina
Derivation of Equity Risk Premium Based on the Total Market Approach
Using the Beta for the
Proxy Group of Seven Water Companies

Notes:

- (1) Based on the arithmetic mean historical monthly returns on large company common stocks from Kroll 2022 SBBI® 2022 YearbookMarket Report minus the arithmetic mean monthly yield of Moody's average Aaa and Aa2 corporate bonds from 1928-2021.
- (2) This equity risk premium is based on a regression of the monthly equity risk premiums of large company common stocks relative to Moody's average Aaa and Aa2 rated corporate bond yields from 1928-2021 referenced in Note 1 above. The equity risk premium is calculated using current and projected interest rates as indicated. The projected Aaa corporate bond yields for 2023 through 2025 are shown on line 1 of page 6 of this Schedule. The current interest rate is the three-month average Aaa and Aa2 corporate bond yields ending April 2022.
- (3) The Predictive Risk Premium Model (PRPM) is discussed in the accompanying direct testimony. The Ibbotson equity risk premium based on the PRPM is derived by applying the PRPM to the monthly risk premiums between Ibbotson large company common stock monthly returns and average Aaa and Aa2 corporate monthly bond yields, from January 1928 through April 2022.
- (4) The equity risk premium based on the Value Line Summary and Index is derived by subtracting the relevant bond yield from the projected 3-5 year total annual market return of 13.16% (described fully in note 1 on page 5 of Exhibit DWD-5).
- (5) The equity risk premium based on Value Line data for the S&P 500 companies subtracts the relevant bond yield from the expected market return of 16.42%, which was derived using expected dividend yields to represent the income return and expected earnings growth to represent the capital appreciation return.
- (6) The equity risk premium based on Bloomberg data for the S&P 500 companies subtracts the relevant bond yield from the expected market return of 13.93%, which was derived using expected dividend yields to represent the income return and expected earnings growth to represent the capital appreciation return.
- (7) Average of mean and median beta from Schedule DWD-5.

Sources of Information:

Kroll 2022 SBBI® Yearbook
Industrial Manual and Mergent Bond Record
Value Line Summary and Index
Blue Chip Financial Forecasts, December 1, 2021 and April 29, 2022
Bloomberg Professional Services

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Dec 05 2022

W-354, Sub 400

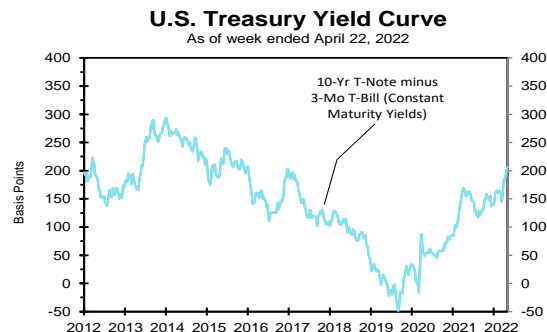
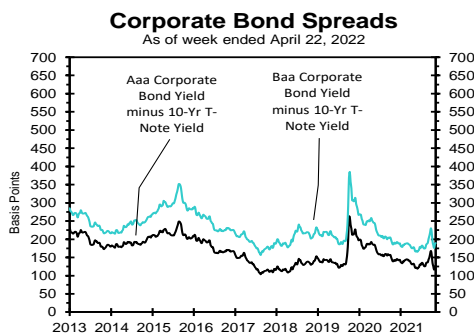
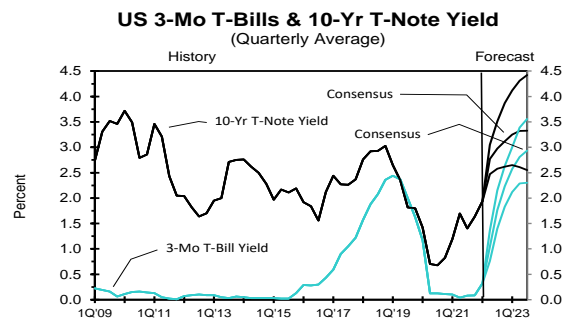
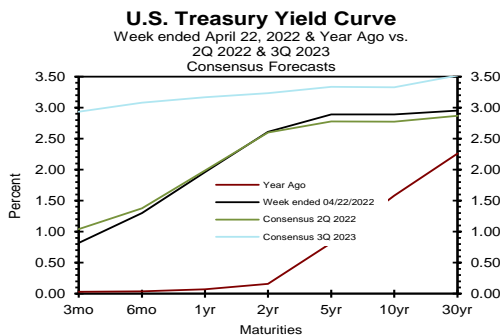
2 ■ BLUE CHIP FINANCIAL FORECASTS ■ APRIL 29, 2022

Consensus Forecasts of U.S. Interest Rates and Key Assumptions

Interest Rates	History				History				Consensus Forecasts-Quarterly Avg.						
	Average For Week Ending				Average For Month				Latest Qtr	2Q 2022	3Q 2022	4Q 2022	1Q 2023	2Q 2023	3Q 2023
Federal Funds Rate	Apr 22	Apr 15	Apr 8	Apr 1	Mar	Feb	Jan	1Q 2022		1.0	1.7	2.2	2.6	2.9	3.0
Prime Rate	3.50	3.50	3.50	3.50	3.37	3.25	3.25	3.29		4.0	4.8	5.2	5.6	5.9	6.1
SOFR	0.27	0.29	0.30	0.28	0.16	0.05	0.05	0.09		0.8	1.6	2.1	2.5	2.7	2.9
Commercial Paper, 1-mo.	0.48	0.38	0.32	0.34	0.32	0.16	0.07	0.18		0.9	1.7	2.1	2.6	2.8	3.0
Treasury bill, 3-mo.	0.82	0.76	0.67	0.55	0.45	0.31	0.15	0.30		1.0	1.8	2.2	2.6	2.8	2.9
Treasury bill, 6-mo.	1.30	1.22	1.15	1.07	0.86	0.64	0.33	0.61		1.4	2.1	2.4	2.8	3.0	3.1
Treasury bill, 1 yr.	1.96	1.81	1.77	1.67	1.34	1.00	0.55	0.96		2.0	2.4	2.7	3.0	3.1	3.2
Treasury note, 2 yr.	2.61	2.43	2.49	2.35	1.91	1.44	0.98	1.44		2.6	2.9	3.0	3.2	3.2	3.2
Treasury note, 5 yr.	2.89	2.73	2.68	2.49	2.11	1.81	1.54	1.82		2.8	3.0	3.1	3.3	3.3	3.3
Treasury note, 10 yr.	2.89	2.76	2.59	2.39	2.13	1.93	1.76	1.94		2.8	3.0	3.1	3.3	3.3	3.3
Treasury note, 30 yr.	2.95	2.85	2.63	2.49	2.41	2.25	2.10	2.25		2.9	3.1	3.2	3.4	3.5	3.5
Corporate Aaa bond	4.16	4.02	3.75	3.64	3.63	3.36	3.06	3.35		4.0	4.2	4.4	4.6	4.7	4.8
Corporate Baa bond	4.78	4.63	4.35	4.23	4.23	3.92	3.54	3.90		4.8	5.1	5.3	5.5	5.6	5.7
State & Local bonds	3.79	3.67	3.55	3.51	3.30	3.01	2.74	3.02		3.4	3.7	3.8	4.0	4.1	4.1
Home mortgage rate	5.11	5.00	4.72	4.67	4.17	3.76	3.45	3.79		4.9	5.1	5.2	5.3	5.4	5.4

Key Assumptions	History				History				Consensus Forecasts-Quarterly						
	2Q 2020	3Q 2020	4Q 2020	1Q 2021	2Q 2021	3Q 2021	4Q 2021	1Q 2022	2Q 2022	3Q 2022	4Q 2022	1Q 2023	2Q 2023	3Q 2023	2023
Fed's AFE \$ Index	112.4	107.2	105.1	103.4	102.9	105.0	107.0	108.4		110.9	111.5	111.7	111.5	111.2	110.9
Real GDP	-31.2	33.8	4.5	6.3	6.7	2.3	6.9	-1.4		2.8	2.7	2.4	2.3	2.1	2.0
GDP Price Index	-1.5	3.6	2.2	4.3	6.1	6.0	7.1	8.0		5.6	4.0	3.4	3.0	2.8	2.6
Consumer Price Index	-3.4	4.8	2.2	4.1	8.2	6.7	7.9	9.2		6.9	4.3	3.4	3.0	2.7	2.6
PCE Price Index	-1.6	3.7	1.5	3.8	6.5	5.3	6.4	7.0		5.8	3.9	3.2	2.8	2.6	2.4

Forecasts for interest rates and the Federal Reserve's Advanced Foreign Economies Index represent averages for the quarter. Forecasts for Real GDP, GDP Price Index, CPI and PCE Price Index are seasonally-adjusted annual rates of change (saar). Individual panel members' forecasts are on pages 4 through 9. Historical data: Treasury rates from the Federal Reserve Board's H.15; AAA-AA and A-BBB corporate bond yields from Bank of America-Merrill Lynch and are 15+ years, yield to maturity; State and local bond yields from Bank of America-Merrill Lynch, A-rated, yield to maturity; Mortgage rates from Freddie Mac, 30-year, fixed; SOFR from the New York Fed. All interest rate data are sourced from Haver Analytics. Historical data for Fed's Advanced Foreign Economies Index are from FRSR H.10. Historical data for Real GDP, GDP Price Index and PCE Price Index are from the Bureau of Economic Analysis (BEA). Consumer Price Index history is from the Department of Labor's Bureau of Labor Statistics (BLS).



W-354, Sub 400

14 ■ BLUE CHIP FINANCIAL FORECASTS ■ DECEMBER 1, 2021

Long-Range Survey:

The table below contains the results of our twice-annual long-range CONSENSUS survey. There are also Top 10 and Bottom 10 averages for each variable. Shown are consensus estimates for the years 2023 through 2027 and averages for the five-year periods 2023-2027 and 2028-2032. Apply these projections cautiously. Few if any economic, demographic and political forces can be evaluated accurately over such long time spans.

		Average For The Year					Five-Year Averages	
		2023	2024	2025	2026	2027	2023-2027	2028-2032
1. Federal Funds Rate	CONSENSUS	0.8	1.6	2.0	2.2	2.3	1.8	2.2
	Top 10 Average	1.2	2.2	2.7	2.7	2.8	2.3	2.9
	Bottom 10 Average	0.4	1.0	1.4	1.7	1.8	1.2	1.5
2. Prime Rate	CONSENSUS	4.0	4.7	5.1	5.3	5.4	4.9	5.3
	Top 10 Average	4.3	5.3	5.8	5.8	5.9	5.4	6.0
	Bottom 10 Average	3.6	4.1	4.5	4.9	5.0	4.4	4.6
3. LIBOR, 3-Mo.	CONSENSUS	1.0	1.7	2.2	2.4	2.5	1.9	2.4
	Top 10 Average	1.3	2.1	2.7	2.9	3.0	2.4	3.1
	Bottom 10 Average	0.7	1.2	1.6	1.9	2.0	1.5	1.8
4. Commercial Paper, 1-Mo	CONSENSUS	0.9	1.6	2.1	2.3	2.4	1.9	2.4
	Top 10 Average	1.2	2.0	2.6	2.8	2.9	2.3	2.9
	Bottom 10 Average	0.6	1.2	1.6	1.9	2.0	1.5	1.8
5. Treasury Bill Yield, 3-Mo	CONSENSUS	0.8	1.4	1.8	2.0	2.3	1.7	2.2
	Top 10 Average	1.2	1.9	2.5	2.6	2.8	2.2	2.9
	Bottom 10 Average	0.4	0.8	1.2	1.5	1.8	1.1	1.6
6. Treasury Bill Yield, 6-Mo	CONSENSUS	0.8	1.4	1.9	2.1	2.4	1.7	2.3
	Top 10 Average	1.2	2.0	2.6	2.7	2.9	2.3	3.0
	Bottom 10 Average	0.4	0.9	1.2	1.6	1.9	1.2	1.7
7. Treasury Bill Yield, 1-Yr	CONSENSUS	1.0	1.6	2.1	2.4	2.5	1.9	2.4
	Top 10 Average	1.4	2.1	2.7	2.8	3.0	2.4	3.1
	Bottom 10 Average	0.6	1.2	1.5	1.9	2.0	1.4	1.8
8. Treasury Note Yield, 2-Yr	CONSENSUS	1.3	1.9	2.4	2.6	2.6	2.2	2.6
	Top 10 Average	1.7	2.5	3.0	3.1	3.2	2.7	3.4
	Bottom 10 Average	0.8	1.4	1.8	2.0	2.1	1.6	1.9
9. Treasury Note Yield, 5-Yr	CONSENSUS	1.9	2.4	2.8	2.9	2.9	2.6	3.0
	Top 10 Average	2.3	3.0	3.4	3.5	3.6	3.1	3.8
	Bottom 10 Average	1.5	1.9	2.1	2.3	2.3	2.0	2.2
10. Treasury Note Yield, 10-Yr	CONSENSUS	2.4	2.8	3.1	3.2	3.2	2.9	3.3
	Top 10 Average	2.8	3.3	3.7	3.8	3.9	3.5	4.2
	Bottom 10 Average	2.0	2.3	2.4	2.5	2.5	2.3	2.4
11. Treasury Bond Yield, 30-Yr	CONSENSUS	2.9	3.3	3.6	3.7	3.7	3.4	3.8
	Top 10 Average	3.4	3.9	4.3	4.4	4.4	4.1	4.6
	Bottom 10 Average	2.4	2.8	2.9	3.0	3.0	2.8	3.0
12. Corporate Aaa Bond Yield	CONSENSUS	3.7	4.2	4.5	4.6	4.8	4.4	4.9
	Top 10 Average	4.3	4.7	5.1	5.2	5.4	4.9	5.6
	Bottom 10 Average	3.2	3.7	3.9	4.1	4.2	3.8	4.2
13. Corporate Baa Bond Yield	CONSENSUS	4.6	5.0	5.3	5.5	5.6	5.2	5.7
	Top 10 Average	5.1	5.5	5.9	6.1	6.2	5.7	6.5
	Bottom 10 Average	4.0	4.5	4.8	4.9	5.0	4.7	5.0
14. State & Local Bonds Yield	CONSENSUS	3.2	3.7	3.9	4.1	4.2	3.8	4.3
	Top 10 Average	3.8	4.3	4.5	4.7	4.8	4.4	5.0
	Bottom 10 Average	2.7	3.2	3.4	3.5	3.6	3.3	3.6
15. Home Mortgage Rate	CONSENSUS	4.0	4.4	4.7	4.8	4.8	4.5	4.9
	Top 10 Average	4.5	5.0	5.3	5.4	5.4	5.1	5.7
	Bottom 10 Average	3.6	3.9	4.1	4.1	4.2	4.0	4.1
A. Fed's AFE Nominal \$ Index	CONSENSUS	106.2	106.0	106.1	106.2	106.4	106.2	106.5
	Top 10 Average	108.1	108.4	108.9	109.0	109.2	108.7	110.1
	Bottom 10 Average	104.4	104.0	103.7	103.7	103.9	103.9	103.1
		Year-Over-Year, % Change					Five-Year Averages	
		2023	2024	2025	2026	2027	2023-2027	2028-2032
B. Real GDP	CONSENSUS	2.6	2.2	2.1	2.0	2.0	2.2	2.0
	Top 10 Average	3.1	2.6	2.5	2.4	2.3	2.6	2.4
	Bottom 10 Average	2.2	1.7	1.7	1.7	1.7	1.8	1.7
C. GDP Chained Price Index	CONSENSUS	2.5	2.2	2.2	2.1	2.1	2.2	2.1
	Top 10 Average	3.0	2.7	2.5	2.4	2.4	2.6	2.4
	Bottom 10 Average	2.0	1.9	1.9	1.9	1.9	1.9	1.8
D. Consumer Price Index	CONSENSUS	2.6	2.3	2.3	2.2	2.2	2.3	2.2
	Top 10 Average	3.2	2.8	2.6	2.5	2.5	2.7	2.5
	Bottom 10 Average	2.1	2.0	2.0	2.0	2.0	2.0	1.9
E. PCE Price Index	CONSENSUS	2.5	2.2	2.1	2.1	2.1	2.2	2.1
	Top 10 Average	3.0	2.6	2.4	2.4	2.3	2.6	2.4
	Bottom 10 Average	2.0	1.9	1.9	1.9	1.9	1.9	1.9

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W-354, Sub 400

Carolina Water Service Inc. of North Carolina
Derivation of Mean Equity Risk Premium Based Studies
Using Holding Period Returns and
Projected Market Appreciation of the S&P Utility Index

<u>Line No.</u>		Results using Current Interest Rates	Results using Projected 2023 Interest Rates	Results using Projected 2024 Interest Rates	Results using Projected 2025 Interest Rates
	Equity Risk Premium based on S&P Utility Index Holding Period Returns (1):				
1.	Historical Equity Risk Premium	4.28 %	4.28 %	4.28 %	4.28 %
2.	Regression of Historical Equity Risk Premium (2)	6.36	5.56	5.77	5.52
3.	Forecasted Equity Risk Premium Based on PRPM (3)	5.89	5.89	5.89	5.89
4.	Forecasted Equity Risk Premium based on Projected Total Return on the S&P Utilities Index (Value Line Data) (4)	6.67	5.70	5.95	5.65
5.	Forecasted Equity Risk Premium based on Projected Total Return on the S&P Utilities Index (Bloomberg Data) (5)	5.93	4.96	5.21	4.91
6.	Average Equity Risk Premium (6)	5.83 %	5.28 %	5.42 %	5.25 %

Notes provided on page 16 of this Schedule.

W-354, Sub 400

Carolina Water Service Inc. of North Carolina
Derivation of Mean Equity Risk Premium Based Studies
Using Holding Period Returns and
Projected Market Appreciation of the S&P Utility Index

Notes:

- (1) Based on S&P Public Utility Index monthly total returns and Moody's Public Utility Bond average monthly yields from 1928-2021. Holding period returns are calculated based upon income received (dividends and interest) plus the relative change in the market value of a security over a one-year holding period.
- (2) This equity risk premium is based on a regression of the monthly equity risk premiums of the S&P Utility Index relative to Moody's A2 rated public utility bond yields from 1928 - 2021 referenced in note 1 above. Using the equation generated from the regression, an expected equity risk premium is calculated using the relevant bond yield. The current and projected A2 rated utility bond yields are shown on lines 4 and 3 of page 6 of this Schedule, respectively.
- (3) The Predictive Risk Premium Model (PRPM) is applied to the risk premium of the monthly total returns of the S&P Utility Index and the monthly yields on Moody's A2 rated public utility bonds from January 1928 - April 2022.
- (4) The equity risk premium based on Value Line data for the S&P Utilities Index subtracts the relevant bond yield from the expected market return of 10.66%, which was derived using expected dividend yields to represent the income return and expected earnings growth to represent the capital appreciation return.
- (5) The equity risk premium based on Bloomberg data for the S&P Utilities Index subtracts the relevant bond yield from the expected market return of 9.92%, which was derived using expected dividend yields to represent the income return and expected earnings growth to represent the capital appreciation return.
- (6) Average of lines 1 through 5.

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W-354, Sub 400

Carolina Water Service Inc. of North Carolina
Indicated Common Equity Cost Rate Through Use
of the Traditional Capital Asset Pricing Model (CAPM) and Empirical Capital Asset Pricing Model (ECAPM)
Using Current Interest Rates

Proxy Group of Seven Water Companies	[1] Value Line Adjusted Beta	[2] Bloomberg Adjusted Beta	[3] Average Beta	[4] Market Risk Premium (1)	[5] Risk-Free Rate (2)	[6] Traditional CAPM Cost Rate	[7] ECAPM Cost Rate	[8] Indicated Common Equity Cost Rate (6)
American States Water Company	0.65	0.80	0.73	10.50 %	2.49 %	10.16 %	10.87 %	10.51 %
American Water Works Company, Inc.	0.85	0.79	0.82	10.50	2.49	11.10	11.57	11.34
California Water Service Group	0.65	0.91	0.78	10.50	2.49	10.68	11.26	10.97
Essential Utilities Inc.	0.95	0.91	0.93	10.50	2.49	12.26	12.44	12.35
Middlesex Water Company	0.70	0.88	0.79	10.50	2.49	10.79	11.34	11.06
SJW Group	0.80	0.86	0.83	10.50	2.49	11.21	11.65	11.43
The York Water Company	0.85	0.81	0.83	10.50	2.49	11.21	11.65	11.43
Mean			0.82			11.06 %	11.54 %	11.30 %
Median			0.82			11.10 %	11.57 %	11.34 %
Average of Mean and Median			0.82			11.08 %	11.56 %	11.32 %

Notes on page 5 of this Schedule.

W-354, Sub 400

Carolina Water Service Inc. of North Carolina
Indicated Common Equity Cost Rate Through Use
of the Traditional Capital Asset Pricing Model (CAPM) and Empirical Capital Asset Pricing Model (ECAPM)
Using Projected 2023 Interest Rates

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Proxy Group of Seven Water Companies	Value Line Adjusted Beta	Bloomberg Adjusted Beta	Average Beta	Market Risk Premium (1)	Risk-Free Rate (3)	Traditional CAPM Cost Rate	ECAPM Cost Rate	Indicated Common Equity Cost Rate (6)
American States Water Company	0.65	0.80	0.73	9.93 %	3.33 %	10.58 %	11.25 %	10.91 %
American Water Works Company, Inc.	0.85	0.79	0.82	9.93	3.33	11.47	11.92	11.69
California Water Service Group	0.65	0.91	0.78	9.93	3.33	11.07	11.62	11.35
Essential Utilities Inc.	0.95	0.91	0.93	9.93	3.33	12.56	12.74	12.65
Middlesex Water Company	0.70	0.88	0.79	9.93	3.33	11.17	11.69	11.43
SJW Group	0.80	0.86	0.83	9.93	3.33	11.57	11.99	11.78
The York Water Company	0.85	0.81	0.83	9.93	3.33	11.57	11.99	11.78
Mean		0.82	0.82			11.43 %	11.89 %	11.66 %
Median			0.82			11.47 %	11.92 %	11.69 %
Average of Mean and Median			0.82			11.45 %	11.91 %	11.68 %

Notes on page 5 of this Schedule.

W-354, Sub 400

Carolina Water Service Inc. of North Carolina
Indicated Common Equity Cost Rate Through Use
of the Traditional Capital Asset Pricing Model (CAPM) and Empirical Capital Asset Pricing Model (ECAPM)
Using Projected 2024 Interest Rates

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Proxy Group of Seven Water Companies	Value Line Adjusted Beta	Bloomberg Adjusted Beta	Average Beta	Market Risk Premium (1)	Risk-Free Rate (4)	Traditional CAPM Cost Rate	ECAPM Cost Rate	Indicated Common Equity Cost Rate (6)
American States Water Company	0.65	0.80	0.73	9.95 %	3.30 %	10.56 %	11.23 %	10.90 %
American Water Works Company, Inc.	0.85	0.79	0.82	9.95	3.30	11.46	11.91	11.68
California Water Service Group	0.65	0.91	0.78	9.95	3.30	11.06	11.61	11.33
Essential Utilities Inc.	0.95	0.91	0.93	9.95	3.30	12.55	12.73	12.64
Middlesex Water Company	0.70	0.88	0.79	9.95	3.30	11.16	11.68	11.42
SJW Group	0.80	0.86	0.83	9.95	3.30	11.56	11.98	11.77
The York Water Company	0.85	0.81	0.83	9.95	3.30	11.56	11.98	11.77
Mean		0.82	0.82	11.42 %		11.42 %	11.87 %	11.64 %
Median		0.82	0.82	11.46 %		11.46 %	11.91 %	11.68 %
Average of Mean and Median		0.82	0.82	11.44 %		11.44 %	11.89 %	11.66 %

Notes on page 5 of this Schedule.

W-354, Sub 400

Carolina Water Service Inc. of North Carolina
Indicated Common Equity Cost Rate Through Use
of the Traditional Capital Asset Pricing Model (CAPM) and Empirical Capital Asset Pricing Model (ECAPM)
Using Projected 2025 Interest Rates

Proxy Group of Seven Water Companies	[1] Value Line Adjusted Beta	[2] Bloomberg Adjusted Beta	[3] Average Beta	[4] Market Risk Premium (1)	[5] Risk-Free Rate (5)	[6] Traditional CAPM Cost Rate	[7] ECAPM Cost Rate	[8] Indicated Common Equity Cost Rate (6)
American States Water Company	0.65	0.80	0.73	9.74 %	3.60 %	10.71 %	11.37 %	11.04 %
American Water Works Company, Inc.	0.85	0.79	0.82	9.74	3.60	11.59	12.03	11.81
California Water Service Group	0.65	0.91	0.78	9.74	3.60	11.20	11.74	11.47
Essential Utilities Inc.	0.95	0.91	0.93	9.74	3.60	12.66	12.83	12.75
Middlesex Water Company	0.70	0.88	0.79	9.74	3.60	11.30	11.81	11.55
SJW Group	0.80	0.86	0.83	9.74	3.60	11.69	12.10	11.89
The York Water Company	0.85	0.81	0.83	9.74	3.60	11.69	12.10	11.89
Mean			0.82			11.55 %	12.00 %	11.77 %
Median			0.82			11.59 %	12.03 %	11.81 %
Average of Mean and Median			0.82			11.57 %	12.02 %	11.79 %

Notes on page 5 of this Schedule.

W-354, Sub 400

Carolina Water Service Inc. of North Carolina
Notes to Accompany the Application of the CAPM and ECAPM

Notes:

(1) The market risk premium (MRP) is derived by using six different measures from three sources: Ibbotson, Value Line, and Bloomberg as illustrated below:

	Using Current Interest Rates	Using Projected 2023 Interest Rates	Using Projected 2024 Interest Rates	Using Projected 2025 Interest Rates
<u>Historical Data MRP Estimates:</u>				
Measure 1: Ibbotson Arithmetic Mean MRP (1926-2021)				
Arithmetic Mean Monthly Returns for Large Stocks 1926-2021:	12.37 %	12.37 %	12.37 %	12.37 %
Arithmetic Mean Income Returns on Long-Term Government Bonds:	5.02	5.02	5.02	5.02
MRP based on Ibbotson Historical Data:	<u>7.35 %</u>	<u>7.35 %</u>	<u>7.35 %</u>	<u>7.35 %</u>
Measure 2: Application of a Regression Analysis to Ibbotson Historical Data (1926-2021)				
	<u>10.27 %</u>	<u>9.34 %</u>	<u>9.38 %</u>	<u>9.05 %</u>
Measure 3: Application of the PRPM to Ibbotson Historical Data: (January 1926 - April 2022)				
	<u>9.35 %</u>	<u>9.35 %</u>	<u>9.35 %</u>	<u>9.35 %</u>
<u>Value Line MRP Estimates:</u>				
Measure 4: Value Line Projected MRP (Thirteen weeks ending May 13, 2022)				
Total projected return on the market 3-5 years hence*:	13.16 %	13.16 %	13.16 %	13.16 %
Projected Risk-Free Rate (see note 2):	2.49	3.33	3.30	3.60
MRP based on Value Line Summary & Index:	<u>10.67 %</u>	<u>9.83 %</u>	<u>9.86 %</u>	<u>9.56 %</u>
*Forecasted 3-5 year capital appreciation plus expected dividend yield				
Measure 5: Value Line Projected Return on the Market based on the S&P 500				
Total return on the Market based on the S&P 500:	16.42 %	16.42 %	16.42 %	16.42 %
Projected Risk-Free Rate (see note 2):	2.49	3.33	3.30	3.60
MRP based on Value Line data	<u>13.93 %</u>	<u>13.09 %</u>	<u>13.12 %</u>	<u>12.82 %</u>
Measure 6: Bloomberg Projected MRP				
Total return on the Market based on the S&P 500:	13.93 %	13.93 %	13.93 %	13.93 %
Projected Risk-Free Rate (see note 2):	2.49	3.33	3.30	3.60
MRP based on Bloomberg data	<u>11.44 %</u>	<u>10.60 %</u>	<u>10.63 %</u>	<u>10.33 %</u>
Average of Value Line, Ibbotson, and Bloomberg MRP:	<u>10.50 %</u>	<u>9.93 %</u>	<u>9.95 %</u>	<u>9.74 %</u>

(2) Three-month average on 30-year Treasury bond yield ended February, 2022 as shown below:

Feb-22	2.25 %
Mar-22	2.41
Apr-22	<u>2.81</u>
	<u>2.49 %</u>

(3) For reasons explained in the Direct Testimony, the appropriate risk-free rate for cost of capital purposes is the average forecast of 30 year Treasury Bonds per the consensus of nearly 50 economists reported in Blue Chip Financial Forecasts. (See pages 13-14 of Schedule DWD-4.) The projection of the 2023 risk-free rate is illustrated below:

First Quarter 2023	3.40 %
Second Quarter 2023	3.50
Third Quarter 2023	3.50
2023 Consensus	<u>2.90</u>
	<u>3.33 %</u>

(4) The projection of the 2024 risk-free rate is illustrated below:

2024 Consensus	<u>3.30 %</u>
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(5) The projection of the 2025 risk-free rate is illustrated below:

2025 Consensus	<u>3.60 %</u>
----------------	---------------

(6) Average of Column 6 and Column 7.

Sources of Information:
Value Line Summary and Index
Blue Chip Financial Forecasts, December 1, 2021 and April 29, 2022
Kroll 2022 SBI® Yearbook
Bloomberg Professional Services

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W-354, Sub 400

Carolina Water Service Inc. of North Carolina
Basis of Selection of the Group of Non-Price Regulated Companies
Comparable in Total Risk to the Utility Proxy Group

The criteria for selection of the proxy group of twenty-five non-price regulated companies was that the non-price regulated companies be domestic and reported in Value Line Investment Survey (Standard Edition).

The Non-Price Regulated Proxy Group were then selected based on the unadjusted beta range of 0.48 – 0.78 and residual standard error of the regression range of 2.8225 – 3.3665 of the Utility Proxy Group.

These ranges are based upon plus or minus two standard deviations of the unadjusted beta and standard error of the regression. Plus or minus two standard deviations captures 95.50% of the distribution of unadjusted betas and residual standard errors of the regression.

The standard deviation of the Utility Proxy Group's residual standard error of the regression is 0.1360. The standard deviation of the standard error of the regression is calculated as follows:

$$\text{Standard Deviation of the Std. Err. of the Regr.} = \frac{\text{Standard Error of the Regression}}{\sqrt{2N}}$$

where: N = number of observations. Since Value Line betas are derived from weekly price change observations over a period of five years, N = 259

$$\text{Thus, } 0.1360 = \frac{3.0945}{\sqrt{518}} = \frac{3.0945}{22.7596}$$

Source of Information: Value Line, Inc., March 2022
Value Line Investment Survey (Standard Edition)

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Dec 05 2022

W-354, Sub 400

Carolina Water Service Inc. of North Carolina
Basis of Selection of Comparable Risk
Domestic Non-Price Regulated Companies

	[1]	[2]	[3]	[4]
Proxy Group of Seven Water Companies	Value Line Adjusted Beta	Unadjusted Beta	Residual Standard Error of the Regression	Standard Deviation of Beta
American States Water Company	0.65	0.40	2.4309	0.0601
American Water Works Company, Inc.	0.85	0.75	3.2139	0.0795
California Water Service Group	0.65	0.46	3.0606	0.0757
Essential Utilities Inc.	0.95	0.90	2.6745	0.0662
Middlesex Water Company	0.70	0.51	3.4876	0.0863
SJW Group	0.80	0.68	3.3451	0.0827
The York Water Company	0.85	0.71	3.4491	0.0853
Average	0.78	0.63	3.0945	0.0765
Beta Range (+/- 2 std. Devs. of Beta) 2 std. Devs. of Beta	0.48 0.15	0.78		
Residual Std. Err. Range (+/- 2 std. Devs. of the Residual Std. Err.)	2.8225	3.3665		
Std. dev. of the Res. Std. Err.	0.1360			
2 std. devs. of the Res. Std. Err.	0.2720			

Source of Information: Valueline Proprietary Database, March 2022

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W-354, Sub 400

Carolina Water Service Inc. of North Carolina
Proxy Group of Non-Price Regulated Companies
Comparable in Total Risk to the
Proxy Group of Seven Water Companies

	[1]	[2]	[3]	[4]
Proxy Group of Twenty-Four Non-Price Regulated Companies	Value Line Adjusted Beta	Unadjusted Beta	Residual Standard Error of the Regression	Standard Deviation of Beta
Smith (A.O.)	0.85	0.77	2.8592	0.0707
Balchem Corp.	0.70	0.51	3.3114	0.0819
Becton, Dickinson	0.75	0.60	2.8626	0.0708
Bristol-Myers Squibb	0.85	0.75	2.9154	0.0721
Chemed Corp.	0.85	0.70	2.8432	0.0703
C.H. Robinson	0.75	0.56	3.0412	0.0752
CSG Systems Int'l	0.75	0.57	3.0997	0.0767
Quest Diagnostics	0.80	0.65	3.1904	0.0789
Heartland Express	0.75	0.55	2.8513	0.0705
Henry (Jack) & Assoc	0.85	0.70	2.9159	0.0721
Lancaster Colony	0.70	0.49	2.9597	0.0732
Lilly (Eli)	0.75	0.62	3.2324	0.0800
ManTech Int'l 'A'	0.85	0.75	3.1083	0.0769
McCormick & Co.	0.80	0.65	2.8247	0.0699
Monster Beverage	0.85	0.75	2.9659	0.0734
Northrop Grumman	0.85	0.75	2.9830	0.0738
Oracle Corp.	0.75	0.61	2.8406	0.0703
Progressive Corp.	0.75	0.59	2.9344	0.0726
RLI Corp.	0.80	0.65	2.8568	0.0707
Rollins, Inc.	0.85	0.73	3.1605	0.0782
Tyler Technologies	0.75	0.59	3.2277	0.0798
United Parcel Serv.	0.80	0.65	3.3248	0.0822
Werner Enterprises	0.75	0.62	3.2786	0.0811
Western Union	0.80	0.64	2.8493	0.0705
Average	0.79	0.64	3.0182	0.0747
Proxy Group of Seven Water Companies	0.78	0.63	3.0945	0.0765

Source of Information:

Valueline Proprietary Database, March 2022

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W-354, Sub 400

Carolina Water Service Inc. of North Carolina
Summary of Cost of Equity Models Applied to
Proxy Group of Twenty-Four Non-Price Regulated Companies
Comparable in Total Risk to the
Proxy Group of Seven Water Companies

Principal Methods	Results using Current Interest Rates	Results using Projected 2023 Interest Rates	Results using Projected 2024 Interest Rates	Results using Projected 2025 Interest Rates
Discounted Cash Flow Model (DCF) (1)	10.68 %	10.68 %	10.68 %	10.68 %
Risk Premium Model (RPM) (2)	11.79	12.33	12.13	12.25
Capital Asset Pricing Model (CAPM) (3)	11.18	11.55	11.53	11.66
Mean	11.22 %	11.52 %	11.45 %	11.53 %
Median	11.18 %	11.55 %	11.53 %	11.66 %
Average of Mean and Median	11.20 %	11.54 %	11.49 %	11.60 %

Notes:

- (1) From page 2 of this Schedule.
- (2) From page 3 of this Schedule.
- (3) From pages 6 through 9 of this Schedule.

W-354, Sub 400

Carolina Water Service Inc. of North Carolina
DCF Results for the Proxy Group of Non-Price-Regulated Companies Comparable in Total Risk to the
Proxy Group of Seven Water Companies

Proxy Group of Twenty-Four Non-Price Regulated Companies	[1] Average Dividend Yield	[2] Value Line Projected Five Year Growth in EPS	[3] Zack's Five Year Projected Growth Rate in EPS	[4] Yahoo! Finance Projected Five Year Growth in EPS	[6] Average Projected Five Year Growth Rate in EPS	[7] Adjusted Dividend Yield	[8] Indicated Common Equity Cost Rate (1)
Smith (A.O.)	1.72	11.50	9.00	8.00	9.50	1.80	11.30
Balchem Corp.	0.48	14.00	NA	24.00	19.00	0.53	19.53
Becton, Dickinson	1.34	5.50	6.30	3.20	5.00	1.37	6.37
Bristol-Myers Squibb	2.96	NMF	6.20	4.43	5.32	3.04	8.36
Chemered Corp.	0.29	7.00	8.50	7.00	7.50	0.30	7.80
C.H. Robinson	2.13	8.50	9.00	7.24	8.25	2.22	10.47
CSG Systems Int'l	1.70	12.00	NA	(5.00)	12.00	1.80	13.80
Quest Diagnostics	1.93	7.00	NA	(13.70)	7.00	2.00	9.00
Heartland Express	0.57	8.50	NA	13.30	10.90	0.60	11.50
Henry (Jack) & Assoc	1.04	9.00	9.00	14.00	10.67	1.10	11.77
Lancaster Colony	2.08	5.50	NA	3.00	4.25	2.12	6.37
Lilly (Eli)	1.40	11.50	15.30	6.66	11.15	1.48	12.63
ManTech Int'l 'A'	1.95	7.50	NA	5.38	6.44	2.01	8.45
McCormick & Co.	1.49	6.00	6.10	6.95	6.35	1.54	7.89
Monster Beverage	-	11.50	15.70	14.58	13.93	-	NA
Northrop Grumman	1.41	7.50	6.10	6.10	6.57	1.46	8.03
Oracle Corp.	1.65	9.00	8.00	10.24	9.08	1.72	10.80
Progressive Corp.	0.36	4.50	17.60	NMF	11.05	0.38	11.43
RLJ Corp.	0.95	12.00	NA	9.80	10.90	1.00	11.90
Rollins, Inc.	1.19	10.50	NA	8.20	9.35	1.25	10.60
Tyler Technologies	-	12.00	NA	10.00	11.00	-	NA
United Parcel Serv.	3.05	11.50	9.00	14.10	11.53	3.23	14.76
Werner Enterprises	1.26	9.00	4.10	9.40	7.50	1.31	8.81
Western Union	5.13	8.00	NA	6.84	7.42	5.32	12.74
					Mean		10.65
					Median		10.70
					Average of Mean and Median		10.68

NA= Not Available
NMF= Not Meaningful Figure

Notes: (1) The application of the DCF model to the domestic, non-price regulated comparable risk companies is identical to the application of the DCF to the utility proxy group. The dividend yield is derived by using the 60 day average price and the spot indicated dividend as of May 13, 2022. The dividend yield is then adjusted by 1/2 the average projected growth rate in EPS, which is calculated by averaging the 5 year projected growth in EPS provided by Value Line, www.zacks.com, and www.yahoo.com (excluding any negative growth rates) and then adding that growth rate to the adjusted dividend yield.

Source of Information:

Value Line Investment Survey
www.zacks.com Downloaded on 05/13/2022
www.yahoo.com Downloaded on 05/13/2022

Dec 05 2022

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W-354, Sub 400

Carolina Water Service Inc. of North Carolina
Indicated Common Equity Cost Rate
Through Use of a Risk Premium Model
Using an Adjusted Total Market Approach

<u>Line No.</u>		<u>Proxy Group of Twenty-Four Non- Price Regulated Companies</u>	<u>Results using Projected 2023 Interest Rates</u>	<u>Results using Projected 2024 Interest Rates</u>	<u>Results using Projected 2025 Interest Rates</u>
1.	Prospective Yield on Baa2 Rated Corporate Bonds	-	5.35 % (1)	5.00 % (2)	5.30 % (3)
2.	Current Yield on Baa2 Rated Corporate Bonds (4)	4.30 %	-	-	-
3.	Adjustment to Reflect Bond rating Difference of Non-Price Regulated Companies (5)	<u>(0.13)</u>	<u>(0.13)</u>	<u>(0.13)</u>	<u>(0.13)</u>
4.	Adjusted Prospective Bond Yield	4.17	5.22	4.87	5.17
5.	Equity Risk Premium (6)	<u>7.62</u>	<u>7.11</u>	<u>7.26</u>	<u>7.08</u>
6.	Risk Premium Derived Common Equity Cost Rate	<u>11.79 %</u>	<u>12.33 %</u>	<u>12.13 %</u>	<u>12.25 %</u>

- (1) Average forecast of 2023 Baa2 corporate bonds based upon the consensus of nearly 50 economists reported in Blue Chip Financial Forecasts dated December 1, 2021 and April 29, 2022 (see pages 13 and 14 of Schedule DWD-4). The estimates are detailed below.

First Quarter 2023	5.50 %
Second Quarter 2023	5.60
Third Quarter 2023	5.70
2023 Consensus	<u>4.60</u>
Average	<u>5.35 %</u>

- (2) The projection of the 2024 Baa2 corporate bond is illustrated below:

2024 Consensus	<u>5.00 %</u>
----------------	---------------

- (3) The projection of the 2025 Baa2 corporate bond is illustrated below:

2025 Consensus	<u>5.30 %</u>
----------------	---------------

- (4) Three-month average Baa2 corporate bond yield ended February, 2022 as reported by Bloomberg Professional Services shown below:

Feb-22	3.97 %
Mar-22	4.29
Apr-22	<u>4.64</u>
Average	<u>4.30 %</u>

- (5) The average yield spread of Baa rated corporate bonds over A corporate bonds for the three months ending April 2022. To reflect the Baa1 average rating of the non-utility proxy group, the prospective yield on Baa corporate bonds must be adjusted by 1/3 of the spread between A and Baa corporate bond yields as shown below:

	<u>A Corp. Bond Yield</u>	<u>Baa Corp. Bond Yield</u>	<u>Spread</u>
Apr-22	4.21 %	4.64 %	0.43 %
Mar-22	3.88	4.29	0.41
Feb-22	3.60	3.97	<u>0.37</u>
		Average yield spread	<u>0.40</u>
		1/3 of spread	<u>0.13</u>

- (6) From page 5 of this Schedule.

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Dec 05 2022

W-354, Sub 400

Carolina Water Service Inc. of North Carolina
Comparison of Long-Term Issuer Ratings for the
Proxy Group of Twenty-Four Non-Price Regulated Companies of Comparable risk to the
Proxy Group of Seven Water Companies

Proxy Group of Twenty-Four Non-Price Regulated Companies	Moody's Long-Term Issuer Rating May 2022		Standard & Poor's Long-Term Issuer Rating May 2022	
	Long-Term Issuer Rating	Numerical Weighting (1)	Long-Term Issuer Rating	Numerical Weighting (1)
Smith (A.O.)	NA	--	NA	--
Balchem Corp.	NA	--	NA	--
Becton, Dickinson	Baa3	10.0	BBB	9.0
Bristol-Myers Squibb	A2	6.0	A+	5.0
Chemed Corp.	WR	--	NR	--
C.H. Robinson	Baa2	9.0	BBB+	8.0
CSG Systems Int'l	NA	--	BB+	11.0
Quest Diagnostics	Baa2	9.0	BBB+	8.0
Heartland Express	NA	--	NA	--
Henry (Jack) & Assoc	NA	--	NA	--
Lancaster Colony	NA	--	NA	--
Lilly (Eli)	A2	6.0	A+	5.0
ManTech Int'l 'A'	WR	--	BB+	11.0
McCormick & Co.	Baa2	9.0	BBB	9.0
Monster Beverage	NA	--	NA	--
Northrop Grumman	Baa1	8.0	BBB+	8.0
Oracle Corp.	Baa2	9.0	BBB+	8.0
Progressive Corp.	A2	6.0	A	6.0
RLI Corp.	Baa2	9.0	BBB	9.0
Rollins, Inc.	NA	--	NA	--
Tyler Technologies	NA	--	NA	--
United Parcel Serv.	A2	6.0	A	6.0
Werner Enterprises	NA	--	NA	--
Western Union	Baa2	9.0	BBB	9.0
Average	Baa1	8.0	BBB+	8.0

Notes:

(1) From page 9 of Schedule DWD-4.

Source of Information:

Bloomberg Professional Services

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Dec 05 2022

W-354, Sub 400

Carolina Water Service Inc. of North Carolina
Derivation of Equity Risk Premium Based on the Total Market Approach
Using the Beta for
Proxy Group of Twenty-Four Non-Price Regulated Companies of Comparable risk to the
Proxy Group of Seven Water Companies

Line No.	Equity Risk Premium Measure	Results using Current Interest Rates	Results using Projected 2023 Interest Rates	Results using Projected 2024 Interest Rates	Results using Projected 2025 Interest Rates
<u>Ibbotson-Based Equity Risk Premiums:</u>					
1.	Ibbotson Equity Risk Premium (1)	6.13 %	6.13 %	6.13 %	6.13 %
2.	Regression on Ibbotson Risk Premium Data (2)	9.16	8.02	8.34	7.96
3.	Ibbotson Equity Risk Premium based on PRPM (3)	8.35	8.35	8.35	8.35
4.	Equity Risk Premium Based on <u>Value Line</u> Summary and Index (4)	9.61	8.71	8.96	8.66
5	Equity Risk Premium Based on <u>Value Line</u> S&P 500 Companies (5)	12.87	11.97	12.22	11.92
6.	Equity Risk Premium Based on Bloomberg S&P 500 Companies (6)	10.37	9.48	9.73	9.43
7.	Conclusion of Equity Risk Premium	9.41 %	8.78 %	8.96 %	8.74 %
8.	Adjusted Beta (7)	0.81	0.81	0.81	0.81
9.	Forecasted Equity Risk Premium	7.62 %	7.11 %	7.26 %	7.08 %

Notes:

- (1) From note 1 of page 12 of Schedule DWD-4.
- (2) From note 2 of page 12 of Schedule DWD-4.
- (3) From note 3 of page 12 of Schedule DWD-4.
- (4) From note 4 of page 12 of Schedule DWD-4.
- (5) From note 5 of page 12 of Schedule DWD-4.
- (6) From note 6 of page 12 of Schedule DWD-4.
- (7) Average of mean and median beta from page 6 of this Schedule.

Sources of Information:

Kroll 2022 SBB@ Yearbook
Value Line Summary and Index
Blue Chip Financial Forecasts, December 1, 2021 and April 29, 2022
Bloomberg Professional Services

W-354, Sub 400

Carolina Water Service Inc. of North Carolina
Traditional CAPM and ECAPM Results for the Proxy Group of Non-Price-Regulated Companies Comparable in Total Risk to the
Proxy Group of Seven Water Companies
Using Current Interest Rates

Proxy Group of Twenty-Four Non-Price Regulated Companies	[1] Value Line Adjusted Beta	[2] Bloomberg Beta	[3] Average Beta	[4] Market Risk Premium (1)	[5] Risk-Free Rate (2)	[6] Traditional CAPM Cost Rate	[7] ECAPM Cost Rate	[8] Indicated Common Equity Cost Rate (3)
Smith (A.O.)	0.85	1.08	0.97	10.50 %	2.49 %	12.68 %	12.76 %	12.72 %
Balchem Corp.	0.70	0.96	0.83	10.50	2.49	11.21	11.65	11.43
Becton, Dickinson	0.75	0.53	0.64	10.50	2.49	9.21	10.16	9.68
Bristol-Myers Squibb	0.85	0.60	0.73	10.50	2.49	10.16	10.87	10.51
Chemed Corp.	0.85	0.80	0.82	10.50	2.49	11.10	11.57	11.34
C.H. Robinson	0.75	0.87	0.81	10.50	2.49	11.00	11.50	11.25
CSG Systems Int'l	0.75	0.88	0.81	10.50	2.49	11.00	11.50	11.25
Quest Diagnostics	0.80	0.55	0.68	10.50	2.49	9.63	10.47	10.05
Heartland Express	0.75	0.74	0.75	10.50	2.49	10.37	11.02	10.69
Henry (Jack) & Assoc	0.85	0.68	0.77	10.50	2.49	11.18	11.18	10.88
Lancaster Colony	0.70	0.70	0.70	10.50	2.49	9.84	10.63	10.24
Lilly (Eli)	0.75	0.67	0.71	10.50	2.49	9.95	10.71	10.33
ManTech Int'l 'A'	0.85	0.78	0.82	10.50	2.49	11.10	11.57	11.34
McCormick & Co.	0.80	0.58	0.69	10.50	2.49	9.74	10.55	10.14
Monster Beverage	0.85	0.96	0.91	10.50	2.49	12.05	12.28	12.16
Northrop Grumman	0.85	0.63	0.74	10.50	2.49	10.26	10.94	10.60
Oracle Corp.	0.75	0.86	0.81	10.50	2.49	11.00	11.50	11.25
Progressive Corp.	0.75	0.73	0.74	10.50	2.49	10.26	10.94	10.60
RLJ Corp.	0.80	0.95	0.88	10.50	2.49	11.73	12.05	11.89
Rollins, Inc.	0.85	0.88	0.86	10.50	2.49	11.52	11.89	11.71
Tyler Technologies	0.75	0.93	0.84	10.50	2.49	11.31	11.73	11.52
United Parcel Serv.	0.80	1.09	0.94	10.50	2.49	12.36	12.52	12.44
Werner Enterprises	0.75	0.74	0.74	10.50	2.49	10.26	10.94	10.60
Western Union	0.80	1.01	0.90	10.50	2.49	11.94	12.20	12.07
Mean			0.80			10.84 %	11.38 %	11.11 %
Median			0.81			11.00 %	11.50 %	11.25 %
Average of Mean and Median			0.81			10.92 %	11.44 %	11.18 %

Notes:

- (1) From Schedule DWD-5, page 5, note 1.
- (2) From Schedule DWD-5, page 5, note 2.
- (3) Average of CAPM and ECAPM cost rates.

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Carolina Water Service Inc. of North Carolina
Traditional CAPM and ECAPM Results for the Proxy Group of Non-Price-Regulated Companies Comparable in Total Risk to the
Proxy Group of Seven Water Companies
Using 2023 Projected Interest Rates

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Proxy Group of Twenty-Four Non-Price Regulated Companies	Value Line Adjusted Beta	Bloomberg Beta	Average Beta	Market Risk Premium (1)	Risk-Free Rate (2)	Traditional CAPM Cost Rate	ECAPM Cost Rate	Indicated Common Equity Cost Rate (3)
Smith (A.O.)	0.85	1.08	0.97	9.93 %	3.33 %	12.96 %	13.03 %	13.00 %
Balchem Corp.	0.70	0.96	0.83	9.93	3.33	11.57	11.99	11.78
Becton, Dickinson	0.75	0.53	0.64	9.93	3.33	9.68	10.58	10.13
Bristol-Myers Squibb	0.85	0.60	0.73	9.93	3.33	10.58	11.25	10.91
Chemed Corp.	0.85	0.80	0.82	9.93	3.33	11.47	11.92	11.69
C.H. Robinson	0.75	0.87	0.81	9.93	3.33	11.37	11.84	11.61
CSG Systems Int'l	0.75	0.88	0.81	9.93	3.33	11.37	11.84	11.61
Quest Diagnostics	0.80	0.55	0.68	9.93	3.33	10.08	10.88	10.48
Heartland Express	0.75	0.74	0.75	9.93	3.33	10.78	11.40	11.09
Henry (Jack) & Assoc	0.85	0.68	0.77	9.93	3.33	10.97	11.55	11.26
Lancaster Colony	0.70	0.70	0.70	9.93	3.33	10.28	11.02	10.65
Lilly (Eli)	0.75	0.67	0.71	9.93	3.33	10.38	11.10	10.74
ManTech Int'l 'A'	0.85	0.78	0.82	9.93	3.33	11.47	11.92	11.69
McCormick & Co.	0.80	0.58	0.69	9.93	3.33	10.18	10.95	10.57
Monster Beverage	0.85	0.96	0.91	9.93	3.33	12.36	12.59	12.48
Northrop Grumman	0.85	0.63	0.74	9.93	3.33	10.68	11.32	11.00
Oracle Corp.	0.75	0.86	0.81	9.93	3.33	11.37	11.84	11.61
Progressive Corp.	0.75	0.73	0.74	9.93	3.33	10.68	11.32	11.00
RLI Corp.	0.80	0.95	0.88	9.93	3.33	12.07	12.36	12.22
Rollins, Inc.	0.85	0.88	0.86	9.93	3.33	11.87	12.22	12.04
Tyler Technologies	0.75	0.93	0.84	9.93	3.33	11.67	12.07	11.87
United Parcel Serv.	0.80	1.09	0.94	9.93	3.33	12.66	12.81	12.74
Werner Enterprises	0.75	0.74	0.74	9.93	3.33	10.68	11.32	11.00
Western Union	0.80	1.01	0.90	9.93	3.33	12.27	12.51	12.39
Mean			0.80			11.23 %	11.73 %	11.48 %
Median			0.81			11.37 %	11.84 %	11.61 %
Average of Mean and Median			0.81			11.30 %	11.79 %	11.55 %

Notes:

- (1) From Schedule DWD-5, page 5, note 1.
- (2) From Schedule DWD-5, page 5, note 3.
- (3) Average of CAPM and ECAPM cost rates.

W-354, Sub 400

Carolina Water Service Inc. of North Carolina
Traditional CAPM and ECAPM Results for the Proxy Group of Non-Price-Regulated Companies Comparable in Total Risk to the
Proxy Group of Seven Water Companies
Using 2024 Projected Interest Rates

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Proxy Group of Twenty-Four Non-Price Regulated Companies	Value Line Adjusted Beta	Bloomberg Beta	Average Beta	Market Risk Premium (1)	Risk-Free Rate (2)	Traditional CAPM Cost Rate	ECAPM Cost Rate	Indicated Common Equity Cost Rate (3)
Smith (A.O.)	0.85	1.08	0.97	9.95 %	3.30 %	12.95 %	13.02 %	12.99 %
Balchem Corp.	0.70	0.96	0.83	9.95	3.30	11.56	11.98	11.77
Becton, Dickinson	0.75	0.53	0.64	9.95	3.30	9.67	10.56	10.11
Bristol-Myers Squibb	0.85	0.60	0.73	9.95	3.30	10.56	11.23	10.90
Chemed Corp.	0.85	0.80	0.82	9.95	3.30	11.46	11.91	11.68
C.H. Robinson	0.75	0.87	0.81	9.95	3.30	11.36	11.83	11.59
CSG Systems Int'l	0.75	0.88	0.81	9.95	3.30	11.36	11.83	11.59
Quest Diagnostics	0.80	0.55	0.68	9.95	3.30	10.06	10.86	10.46
Heartland Express	0.75	0.74	0.75	9.95	3.30	10.76	11.38	11.07
Henry (Jack) & Assoc	0.85	0.68	0.77	9.95	3.30	10.96	11.53	11.25
Lancaster Colony	0.70	0.70	0.70	9.95	3.30	10.26	11.01	10.64
Lilly (Eli)	0.75	0.67	0.71	9.95	3.30	10.36	11.08	10.72
ManTech Int'l 'A'	0.85	0.78	0.82	9.95	3.30	11.46	11.91	11.68
McCormick & Co.	0.80	0.58	0.69	9.95	3.30	10.16	10.94	10.55
Monster Beverage	0.85	0.96	0.91	9.95	3.30	12.35	12.58	12.47
Northrop Grumman	0.85	0.63	0.74	9.95	3.30	10.66	11.31	10.99
Oracle Corp.	0.75	0.86	0.81	9.95	3.30	11.36	11.83	11.59
Progressive Corp.	0.75	0.73	0.74	9.95	3.30	10.66	11.31	10.99
RLI Corp.	0.80	0.95	0.88	9.95	3.30	12.05	12.35	12.20
Rollins, Inc.	0.85	0.88	0.86	9.95	3.30	11.86	12.20	12.03
Tyler Technologies	0.75	0.93	0.84	9.95	3.30	11.66	12.05	11.86
United Parcel Serv.	0.80	1.09	0.94	9.95	3.30	12.65	12.80	12.73
Werner Enterprises	0.75	0.74	0.74	9.95	3.30	10.66	11.31	10.99
Western Union	0.80	1.01	0.90	9.95	3.30	12.25	12.50	12.38
Mean			0.80			11.21 %	11.72 %	11.47 %
Median			0.81			11.36 %	11.83 %	11.59 %
Average of Mean and Median			0.81			11.29 %	11.78 %	11.53 %

Notes:

- (1) From Schedule DWD-5, page 5, note 1.
- (2) From Schedule DWD-5, page 5, note 4.
- (3) Average of CAPM and ECAPM cost rates.

W-354, Sub 400

Carolina Water Service Inc. of North Carolina
Traditional CAPM and ECAPM Results for the Proxy Group of Non-Price-Regulated Companies Comparable in Total Risk to the
Proxy Group of Seven Water Companies
Using 2025 Projected Interest Rates

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Proxy Group of Twenty-Four Non-Price Regulated Companies	Value Line Adjusted Beta	Bloomberg Beta	Average Beta	Market Risk Premium (1)	Risk-Free Rate (2)	Traditional CAPM Cost Rate	ECAPM Cost Rate	Indicated Common Equity Cost Rate (3)
Smith (A.O.)	0.85	1.08	0.97	9.74 %	3.60 %	13.05 %	13.12 %	13.09 %
Balchem Corp.	0.70	0.96	0.83	9.74	3.60	11.69	12.10	11.89
Becton, Dickinson	0.75	0.53	0.64	9.74	3.60	9.84	10.71	10.27
Bristol-Myers Squibb	0.85	0.60	0.73	9.74	3.60	10.71	11.37	11.04
Chemed Corp.	0.85	0.80	0.82	9.74	3.60	11.59	12.03	11.81
C.H. Robinson	0.75	0.87	0.81	9.74	3.60	11.49	11.96	11.72
CSG Systems Int'l	0.75	0.88	0.81	9.74	3.60	11.49	11.96	11.72
Quest Diagnostics	0.80	0.55	0.68	9.74	3.60	10.23	11.01	10.62
Heartland Express	0.75	0.74	0.75	9.74	3.60	10.91	11.52	11.21
Henry (Jack) & Assoc	0.85	0.68	0.77	9.74	3.60	11.10	11.66	11.38
Lancaster Colony	0.70	0.70	0.70	9.74	3.60	10.42	11.15	10.79
Lilly (Eli)	0.75	0.67	0.71	9.74	3.60	10.52	11.22	10.87
ManTech Int'l 'A'	0.85	0.78	0.82	9.74	3.60	11.59	12.03	11.81
McCormick & Co.	0.80	0.58	0.69	9.74	3.60	10.32	11.08	10.70
Monster Beverage	0.85	0.96	0.91	9.74	3.60	12.47	12.69	12.58
Northrop Grumman	0.85	0.63	0.74	9.74	3.60	10.81	11.44	11.13
Oracle Corp.	0.75	0.86	0.81	9.74	3.60	11.49	11.96	11.72
Progressive Corp.	0.75	0.73	0.74	9.74	3.60	10.81	11.44	11.13
RLI Corp.	0.80	0.95	0.88	9.74	3.60	12.17	12.47	12.32
Rollins, Inc.	0.85	0.88	0.86	9.74	3.60	11.98	12.32	12.15
Tyler Technologies	0.75	0.93	0.84	9.74	3.60	11.78	12.17	11.98
United Parcel Serv.	0.80	1.09	0.94	9.74	3.60	12.76	12.91	12.83
Werner Enterprises	0.75	0.74	0.74	9.74	3.60	10.81	11.44	11.13
Western Union	0.80	1.01	0.90	9.74	3.60	12.37	12.61	12.49
Mean			0.80			11.35 %	11.85 %	11.60 %
Median			0.81			11.49 %	11.96 %	11.72 %
Average of Mean and Median			0.81			11.42 %	11.91 %	11.66 %

Notes:

- (1) From Schedule DWD-5, page 5, note 1.
- (2) From Schedule DWD-5, page 5, note 5.
- (3) Average of CAPM and ECAPM cost rates.

W-354, Sub 400

Carolina Water Service Inc. of North Carolina
Derivation of Investment Risk Adjustment Based upon
Ibbotson Associates' Size Premia for the Decile Portfolios of the NYSE/AMEX/NASDAQ

Line No.		[1] [2] [3] [4]			
		Market Capitalization on May 13, 2022 (1) (millions)	Applicable Decile of the NYSE/AMEX/ NASDAQ (2)	Applicable Size Premium (3)	Spread from Applicable Size Premium (4)
		(times larger)			
1.	Carolina Water Service Inc. of North Carolina	\$ 330.292	9	2.10%	
2.	Proxy Group of Seven Water Companies	\$ 2,849.097	8.6 x	1.18%	0.92%

[A] [B] [C] [D]

Decile	Market Capitalization of Smallest Company (millions)		Market Capitalization of Largest Company (millions)		Size Premium (Return in Excess of CAPM)*
	1	2	3	4	
Largest	\$ 36,160.584	\$ 16,759.390	\$ 2,324,390.219	\$ 36,099.221	-0.22%
		8,216.356	16,738.364	8,212.638	0.43%
		5,019.883	5,003.747	3,276.553	0.55%
		2,170.315	2,164.524	1,306.038	0.54%
		1,306.402	629.118	290.002	0.89%
		629.118	290.002	10.588	1.18%
		290.002	10.588	289.007	1.34%
Smallest					1.21%
					2.10%
					4.80%

*From 2022 Duff & Phelps Cost of Capital Navigator

Notes:

- (1) From page 2 of this Schedule.
- (2) Gleaned from Columns [B] and [C] on the bottom of this page. The appropriate decile (Column [A]) corresponds to the market capitalization of the proxy group, which is found in Column [1].
- (3) Corresponding risk premium to the decile is provided in Column [D] on the bottom of this page.
- (4) Line No. 1 Column [3] - Line No. 2 Column [3]. For example, the 0.92% in Column [4], Line No. 2 is derived as follows 0.92% = 2.1% - 1.18%.

W-354, Sub 400

Carolina Water Service Inc. of North Carolina
Market Capitalization of Carolina Water Service Inc. of North Carolina and the
Proxy Group of Seven Water Companies

Company	Exchange	[1] Common Stock Shares Outstanding at Fiscal Year End 2021 (millions)	[2] Book Value per Share at Fiscal Year End 2021 (1)	[3] Total Common Equity at Fiscal Year End 2021 (millions)	[4] Closing Stock Market Price on May 13, 2022	[5] Market-to- Book Ratio on May 13, 2022 (2)	[6] Market Capitalization on May 13, 2022 (3) (millions)
Carolina Water Service Inc. of North Carolina		NA	NA	\$ 96.888 (4)	NA		
Based upon Proxy Group of Seven Water Companies						340.9 (5)	\$ 330.292 (6)
Proxy Group of Seven Water Companies							
American States Water Company	NYSE	36.936	\$ 18.571	\$ 685.947	\$ 77.990	420.0 %	\$ 2,880.661
American Water Works Company, Inc.	NYSE	181.611	40.185	7,298.000	146.480	364.5	26,602.392
California Water Service Group	NYSE	53.716	22.023	1,182.980	53.040	240.8	2,849.097
Essential Utilities Inc.	NYSE	252.868	20.503	5,184.450	45.350	221.2	11,467.547
Middlesex Water Company	NASDAQ	17.522	20.987	367.726	91.180	434.5	1,597.656
SIW Group	NYSE	30.181	34.277	1,034.519	60.640	176.9	1,830.197
The York Water Company	NASDAQ	13.113	11.639	152.622	39.680	340.9	520.322
Median		36.936	\$ 20.987	\$ 1,034.519	\$ 60.640	340.9 %	\$ 2,849.097

NA= Not Available

- Notes: (1) Column 3 / Column 1.
(2) Column 4 / Column 2.
(3) Column 1 * Column 4.
(4) Combined book common equity from Company 2021 annual report filed with the Commission.
(5) The market-to-book ratio of Carolina Water Service Inc. of North Carolina on May 13, 2022 is assumed to be equal to the market-to-book ratio of Proxy Group of Seven Water Companies on May 13, 2022 as appropriate.
(6) Column [3] multiplied by Column [5].

Source of Information: 2021 Annual Forms 10K
Bloomberg Financial Services



Appendix A – Resume & Testimony Listing of:
Dylan W. D’Ascendis, CRRA, CVA
Partner

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Summary

Dylan is an experienced consultant and a Certified Rate of Return Analyst (CRRA) and Certified Valuation Analyst (CVA). Dylan joined ScottMadden in 2016 and has become a leading expert witness with respect to cost of capital and capital structure. He has served as a consultant for investor-owned and municipal utilities and authorities for 13 years. Dylan has testified as an expert witness on over 100 occasions regarding rate of return, cost of service, rate design, and valuation before more than 30 regulatory jurisdictions in the United States and Canada, an American Arbitration Association panel, and the Superior Court of Rhode Island. He also maintains the benchmark index against which the Hennessy Gas Utility Mutual Fund performance is measured. Dylan holds a B.A. in economic history from the University of Pennsylvania and an M.B.A. with concentrations in finance and international business from Rutgers University.

Areas of Specialization

- | | |
|----------------------------|-----------------------|
| ■ Regulation and Rates | ■ Capital Market Risk |
| ■ Rate of Return | ■ Regulatory Strategy |
| ■ Valuation | ■ Cost of Service |
| ■ Mutual Fund Benchmarking | |

Recent Expert Testimony Submission/Appearance

- Regulatory Commission of Alaska – Capital Structure
- Federal Energy Regulatory Commission – Rate of Return
- Public Utility Commission of Texas – Return on Equity
- Hawaii Public Utilities Commission – Cost of Service / Rate Design
- Pennsylvania Public Utility Commission - Valuation

Recent Assignments

- Provided expert testimony on the cost of capital for ratemaking purposes before numerous state utility regulatory agencies
- Sponsored valuation testimony for a large municipal water company in front of an American Arbitration Association Board to justify the reasonability of their lease payments to the City
- Co-authored a valuation report on behalf of a large investor-owned utility company in response to a new state regulation which allowed the appraised value of acquired assets into rate base

Recent Articles and Speeches

- Co-Author of: “Decoupling, Risk Impacts and the Cost of Capital”, co-authored with Richard A. Michelfelder, Ph.D., Rutgers University and Pauline M. Ahern. The Electricity Journal, March, 2020
- Co-Author of: “Decoupling Impact and Public Utility Conservation Investment”, co-authored with Richard A. Michelfelder, Ph.D., Rutgers University and Pauline M. Ahern. Energy Policy Journal, 130 (2019), 311-319
- “Establishing Alternative Proxy Groups”, before the Society of Utility and Regulatory Financial Analysts: 51st Financial Forum, April 4, 2019, New Orleans, LA
- “Past is Prologue: Future Test Year”, Presentation before the National Association of Water Companies 2017 Southeast Water Infrastructure Summit, May 2, 2017, Savannah, GA.
- Co-author of: “Comparative Evaluation of the Predictive Risk Premium Model™, the Discounted Cash Flow Model and the Capital Asset Pricing Model”, co-authored with Richard A. Michelfelder, Ph.D., Rutgers University, Pauline M. Ahern, and Frank J. Hanley, The Electricity Journal, May, 2013
- “Decoupling: Impact on the Risk and Cost of Common Equity of Public Utility Stocks”, before the Society of Utility and Regulatory Financial Analysts: 45th Financial Forum, April 17-18, 2013, Indianapolis, IN

Sponsor	Date	Case/Applicant	Docket No.	Subject
Regulatory Commission of Alaska				
Cook Inlet Natural Gas Storage Alaska, LLC	07/21	Cook Inlet Natural Gas Storage Alaska, LLC	Docket No. TA45-733	Capital Structure
Alaska Power Company	09/20	Alaska Power Company; Goat Lake Hydro, Inc.; BBL Hydro, Inc.	Tariff Nos. TA886-2; TA6-521; TA4-573	Capital Structure
Alaska Power Company	07/16	Alaska Power Company	Docket No. TA857-2	Rate of Return
Alberta Utilities Commission				
AltaLink, L.P., and EPCOR Distribution & Transmission, Inc.	01/20	AltaLink, L.P., and EPCOR Distribution & Transmission, Inc.	2021 Generic Cost of Capital, Proceeding ID. 24110	Rate of Return
Arizona Corporation Commission				
EPCOR Water Arizona, Inc.	06/20	EPCOR Water Arizona, Inc.	Docket No. WS-01303A-20-0177	Rate of Return
Arizona Water Company	12/19	Arizona Water Company – Western Group	Docket No. W-01445A-19-0278	Rate of Return
Arizona Water Company	08/18	Arizona Water Company – Northern Group	Docket No. W-01445A-18-0164	Rate of Return
Arkansas Public Service Commission				
Southwestern Electric Power Co.	07/21	Southwestern Electric Power Co.	Docket No. 21-070-U	Return on Equity
CenterPoint Energy Resources Corp.	05/21	CenterPoint Arkansas Gas	Docket No. 21-004-U	Return on Equity
Colorado Public Utilities Commission				
Summit Utilities, Inc.	04/18	Colorado Natural Gas Company	Docket No. 18AL-0305G	Rate of Return
Atmos Energy Corporation	06/17	Atmos Energy Corporation	Docket No. 17AL-0429G	Rate of Return
Delaware Public Service Commission				
Delmarva Power & Light Co.	01/22	Delmarva Power & Light Co.	Docket No. 22-002 (Gas)	Return on Equity
Delmarva Power & Light Co.	11/20	Delmarva Power & Light Co.	Docket No. 20-0149 (Electric)	Return on Equity
Delmarva Power & Light Co.	10/20	Delmarva Power & Light Co.	Docket No. 20-0150 (Gas)	Return on Equity
Tidewater Utilities, Inc.	11/13	Tidewater Utilities, Inc.	Docket No. 13-466	Capital Structure
Public Service Commission of the District of Columbia				
Washington Gas Light Company	04/22	Washington Gas Light Company	Formal Case No. 1169	Rate of Return
Washington Gas Light Company	09/20	Washington Gas Light Company	Formal Case No. 1162	Rate of Return
Federal Energy Regulatory Commission				
LS Power Grid California, LLC	10/20	LS Power Grid California, LLC	Docket No. ER21-195-000	Rate of Return
Florida Public Service Commission				
Tampa Electric Company	04/21	Tampa Electric Company	Docket No. 20210034-EI	Return on Equity
Peoples Gas System	09/20	Peoples Gas System	Docket No. 20200051-GU	Rate of Return
Utilities, Inc. of Florida	06/20	Utilities, Inc. of Florida	Docket No. 20200139-WS	Rate of Return

Sponsor	Date	Case/Applicant	Docket No.	Subject
Hawaii Public Utilities Commission				
Launiupoko Irrigation Company, Inc.	12/20	Launiupoko Irrigation Company, Inc.	Docket No. 2020-0217 / Transferred to 2020-0089	Capital Structure
Lanai Water Company, Inc.	12/19	Lanai Water Company, Inc.	Docket No. 2019-0386	Cost of Service / Rate Design
Manele Water Resources, LLC	08/19	Manele Water Resources, LLC	Docket No. 2019-0311	Cost of Service / Rate Design
Kaupulehu Water Company	02/18	Kaupulehu Water Company	Docket No. 2016-0363	Rate of Return
Aqua Engineers, LLC	05/17	Puhi Sewer & Water Company	Docket No. 2017-0118	Cost of Service / Rate Design
Hawaii Resources, Inc.	09/16	Laie Water Company	Docket No. 2016-0229	Cost of Service / Rate Design
Illinois Commerce Commission				
Utility Services of Illinois, Inc.	02/21	Utility Services of Illinois, Inc.	Docket No. 21-0198	Rate of Return
Ameren Illinois Company d/b/a Ameren Illinois	07/20	Ameren Illinois Company d/b/a Ameren Illinois	Docket No. 20-0308	Return on Equity
Utility Services of Illinois, Inc.	11/17	Utility Services of Illinois, Inc.	Docket No. 17-1106	Cost of Service / Rate Design
Aqua Illinois, Inc.	04/17	Aqua Illinois, Inc.	Docket No. 17-0259	Rate of Return
Utility Services of Illinois, Inc.	04/15	Utility Services of Illinois, Inc.	Docket No. 14-0741	Rate of Return
Indiana Utility Regulatory Commission				
Aqua Indiana, Inc.	03/16	Aqua Indiana, Inc. Aboite Wastewater Division	Docket No. 44752	Rate of Return
Twin Lakes, Utilities, Inc.	08/13	Twin Lakes, Utilities, Inc.	Docket No. 44388	Rate of Return
Kansas Corporation Commission				
Atmos Energy	07/19	Atmos Energy	19-ATMG-525-RTS	Rate of Return
Kentucky Public Service Commission				
Atmos Energy Corporation	07/21	Atmos Energy Corporation	2021-00304	PRP Rider Rate
Atmos Energy Corporation	06/21	Atmos Energy Corporation	2021-00214	Rate of Return
Duke Energy Kentucky, Inc.	06/21	Duke Energy Kentucky, Inc.	2021-00190	Return on Equity
Bluegrass Water Utility Operating Company	10/20	Bluegrass Water Utility Operating Company	2020-00290	Return on Equity
Louisiana Public Service Commission				
Utilities, Inc. of Louisiana	05/21	Utilities, Inc. of Louisiana	Docket No. U-36003	Rate of Return
Southwestern Electric Power Company	12/20	Southwestern Electric Power Company	Docket No. U-35441	Return on Equity
Atmos Energy	04/20	Atmos Energy	Docket No. U-35535	Rate of Return
Louisiana Water Service, Inc.	06/13	Louisiana Water Service, Inc.	Docket No. U-32848	Rate of Return
Maine Public Utilities Commission				
Summit Natural Gas of Maine, Inc.	03/22	Summit Natural Gas of Maine, Inc.	Docket No. 2022-00025	Rate of Return
The Maine Water Company	09/21	The Maine Water Company	Docket No. 2021-00053	Rate of Return

Sponsor	Date	Case/Applicant	Docket No.	Subject
Maryland Public Service Commission				
Washington Gas Light Company	08/20	Washington Gas Light Company	Case No. 9651	Rate of Return
FirstEnergy, Inc.	08/18	Potomac Edison Company	Case No. 9490	Rate of Return
Massachusetts Department of Public Utilities				
Unitil Corporation	12/19	Fitchburg Gas & Electric Co. (Elec.)	D.P.U. 19-130	Rate of Return
Unitil Corporation	12/19	Fitchburg Gas & Electric Co. (Gas)	D.P.U. 19-131	Rate of Return
Liberty Utilities	07/15	Liberty Utilities d/b/a New England Natural Gas Company	Docket No. 15-75	Rate of Return
Minnesota Public Utilities Commission				
Northern States Power Company	11/01	Northern States Power Company	Docket No. G002/GR-21-678	Return on Equity
Northern States Power Company	10/21	Northern States Power Company	Docket No. E002/GR-21-630	Return on Equity
Northern States Power Company	11/20	Northern States Power Company	Docket No. E002/GR-20-723	Return on Equity
Mississippi Public Service Commission				
Atmos Energy	03/19	Atmos Energy	Docket No. 2015-UN-049	Capital Structure
Atmos Energy	07/18	Atmos Energy	Docket No. 2015-UN-049	Capital Structure
Missouri Public Service Commission				
Spire Missouri, Inc.	12/20	Spire Missouri, Inc.	Case No. GR-2021-0108	Return on Equity
Indian Hills Utility Operating Company, Inc.	10/17	Indian Hills Utility Operating Company, Inc.	Case No. SR-2017-0259	Rate of Return
Raccoon Creek Utility Operating Company, Inc.	09/16	Raccoon Creek Utility Operating Company, Inc.	Case No. SR-2016-0202	Rate of Return
Public Utilities Commission of Nevada				
Southwest Gas Corporation	09/21	Southwest Gas Corporation	Docket No. 21-09001	Return on Equity
Southwest Gas Corporation	08/20	Southwest Gas Corporation	Docket No. 20-02023	Return on Equity
New Hampshire Public Utilities Commission				
Aquarion Water Company of New Hampshire, Inc.	12/20	Aquarion Water Company of New Hampshire, Inc.	Docket No. DW 20-184	Rate of Return
New Jersey Board of Public Utilities				
Middlesex Water Company	05/21	Middlesex Water Company	Docket No. WR21050813	Rate of Return
Atlantic City Electric Company	12/20	Atlantic City Electric Company	Docket No. ER20120746	Return on Equity
FirstEnergy	02/20	Jersey Central Power & Light Co.	Docket No. ER20020146	Rate of Return
Aqua New Jersey, Inc.	12/18	Aqua New Jersey, Inc.	Docket No. WR18121351	Rate of Return
Middlesex Water Company	10/17	Middlesex Water Company	Docket No. WR17101049	Rate of Return
Middlesex Water Company	03/15	Middlesex Water Company	Docket No. WR15030391	Rate of Return

Sponsor	Date	Case/Applicant	Docket No.	Subject
The Atlantic City Sewerage Company	10/14	The Atlantic City Sewerage Company	Docket No. WR14101263	Cost of Service / Rate Design
Middlesex Water Company	11/13	Middlesex Water Company	Docket No. WR1311059	Capital Structure
New Mexico Public Regulation Commission				
Southwestern Public Service Co.	01/21	Southwestern Public Service Co.	Case No. 20-00238-UT	Return on Equity
North Carolina Utilities Commission				
Carolina Water Service, Inc.	07/21	Carolina Water Service, Inc.	Docket No. W-354 Sub 384	Rate of Return
Piedmont Natural Gas Co., Inc.	03/21	Piedmont Natural Gas Co., Inc.	Docket No. G-9, Sub 781	Return on Equity
Duke Energy Carolinas, LLC	07/20	Duke Energy Carolinas, LLC	Docket No. E-7, Sub 1214	Return on Equity
Duke Energy Progress, LLC	07/20	Duke Energy Progress, LLC	Docket No. E-2, Sub 1219	Return on Equity
Aqua North Carolina, Inc.	12/19	Aqua North Carolina, Inc.	Docket No. W-218 Sub 526	Rate of Return
Carolina Water Service, Inc.	06/19	Carolina Water Service, Inc.	Docket No. W-354 Sub 364	Rate of Return
Carolina Water Service, Inc.	09/18	Carolina Water Service, Inc.	Docket No. W-354 Sub 360	Rate of Return
Aqua North Carolina, Inc.	07/18	Aqua North Carolina, Inc.	Docket No. W-218 Sub 497	Rate of Return
North Dakota Public Service Commission				
Northern States Power Company	09/21	Northern States Power Company	Case No. PU-21-381	Rate of Return
Northern States Power Company	11/20	Northern States Power Company	Case No. PU-20-441	Rate of Return
Public Utilities Commission of Ohio				
Duke Energy Ohio, Inc.	10/21	Duke Energy Ohio, Inc.	Case No. 21-887-EL-AIR	Return on Equity
Aqua Ohio, Inc.	07/21	Aqua Ohio, Inc.	Case No. 21-0595-WW-AIR	Rate of Return
Aqua Ohio, Inc.	05/16	Aqua Ohio, Inc.	Case No. 16-0907-WW-AIR	Rate of Return
Pennsylvania Public Utility Commission				
Citizens' Electric Company of Lewisburg	05/22	C&T Enterprises	Docket No. R-2022-3032369	Rate of Return
Valley Energy Company	05/22	C&T Enterprises	Docket No. R-2022-3032300	Rate of Return
Community Utilities of Pennsylvania, Inc.	04/21	Community Utilities of Pennsylvania, Inc.	Docket No. R-2021-3025207	Rate of Return
Vicinity Energy Philadelphia, Inc.	04/21	Vicinity Energy Philadelphia, Inc.	Docket No. R-2021-3024060	Rate of Return
Delaware County Regional Water Control Authority	02/20	Delaware County Regional Water Control Authority	Docket No. A-2019-3015173	Valuation

Sponsor	Date	Case/Applicant	Docket No.	Subject
Valley Energy, Inc.	07/19	C&T Enterprises	Docket No. R-2019-3008209	Rate of Return
Wellsboro Electric Company	07/19	C&T Enterprises	Docket No. R-2019-3008208	Rate of Return
Citizens' Electric Company of Lewisburg	07/19	C&T Enterprises	Docket No. R-2019-3008212	Rate of Return
Steelton Borough Authority	01/19	Steelton Borough Authority	Docket No. A-2019-3006880	Valuation
Mahoning Township, PA	08/18	Mahoning Township, PA	Docket No. A-2018-3003519	Valuation
SUEZ Water Pennsylvania Inc.	04/18	SUEZ Water Pennsylvania Inc.	Docket No. R-2018-000834	Rate of Return
Columbia Water Company	09/17	Columbia Water Company	Docket No. R-2017-2598203	Rate of Return
Veolia Energy Philadelphia, Inc.	06/17	Veolia Energy Philadelphia, Inc.	Docket No. R-2017-2593142	Rate of Return
Emporium Water Company	07/14	Emporium Water Company	Docket No. R-2014-2402324	Rate of Return
Columbia Water Company	07/13	Columbia Water Company	Docket No. R-2013-2360798	Rate of Return
Penn Estates Utilities, Inc.	12/11	Penn Estates, Utilities, Inc.	Docket No. R-2011-2255159	Capital Structure / Long-Term Debt Cost Rate
South Carolina Public Service Commission				
Blue Granite Water Co.	12/19	Blue Granite Water Company	Docket No. 2019-292-WS	Rate of Return
Carolina Water Service, Inc.	02/18	Carolina Water Service, Inc.	Docket No. 2017-292-WS	Rate of Return
Carolina Water Service, Inc.	06/15	Carolina Water Service, Inc.	Docket No. 2015-199-WS	Rate of Return
Carolina Water Service, Inc.	11/13	Carolina Water Service, Inc.	Docket No. 2013-275-WS	Rate of Return
United Utility Companies, Inc.	09/13	United Utility Companies, Inc.	Docket No. 2013-199-WS	Rate of Return
Utility Services of South Carolina, Inc.	09/13	Utility Services of South Carolina, Inc.	Docket No. 2013-201-WS	Rate of Return
Tega Cay Water Services, Inc.	11/12	Tega Cay Water Services, Inc.	Docket No. 2012-177-WS	Capital Structure
Tennessee Public Utility Commission				
Piedmont Natural Gas Company	07/20	Piedmont Natural Gas Company	Docket No. 20-00086	Return on Equity
Public Utility Commission of Texas				
Oncor Electric Delivery Co. LLC	05/22	Oncor Electric Delivery Co. LLC	Docket No. 53601	Return on Equity
Southwestern Public Service Co.	02/21	Southwestern Public Service Co.	Docket No. 51802	Return on Equity
Southwestern Electric Power Co.	10/20	Southwestern Electric Power Co.	Docket No. 51415	Rate of Return
Virginia State Corporation Commission				

Sponsor	Date	Case/Applicant	Docket No.	Subject
Virginia Natural Gas, Inc.	04/21	Virginia Natural Gas, Inc.	PUR-2020-00095	Return on Equity
Massanutten Public Service Corporation	12/20	Massanutten Public Service Corporation	PUE-2020-00039	Return on Equity
Aqua Virginia, Inc.	07/20	Aqua Virginia, Inc.	PUR-2020-00106	Rate of Return
WGL Holdings, Inc.	07/18	Washington Gas Light Company	PUR-2018-00080	Rate of Return
Atmos Energy Corporation	05/18	Atmos Energy Corporation	PUR-2018-00014	Rate of Return
Aqua Virginia, Inc.	07/17	Aqua Virginia, Inc.	PUR-2017-00082	Rate of Return
Massanutten Public Service Corp.	08/14	Massanutten Public Service Corp.	PUE-2014-00035	Rate of Return / Rate Design
Public Service Commission of West Virginia				
Monongahela Power Company and The Potomac Edison Company	12/21	Monongahela Power Company and The Potomac Edison Company	Case No. 21-0857-E-CN (ELG)	Return on Equity
Monongahela Power Company and The Potomac Edison Company	11/21	Monongahela Power Company and The Potomac Edison Company	Case No. 21-0813-E-P (Solar)	Return on Equity

Carolina Water Service Inc. of North Carolina
Table of Contents
to Rebuttal Exhibit No. 1
of Dylan W. D'Ascendis, CRRA, CVA

D'Ascendis Rebuttal
Exhibit 1
I/A

	<u>Schedule</u>
Updated Cost of Capital Analysis	DWD-1R
Hinton Corrected Discounted Cash Flow Model	DWD-2R
Corrected Regression Analysis with Individual Rate Cases	DWD-3R
Hinton CEM Analysis	DWD-4R
Kroll Size Study	DWD-5R
Pre-Tax Interest Coverage	DWD-6R

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Dec 06 2022

Carolina Water Service Inc. of North Carolina
Recommended Capital Structure and Cost Rates

Base Year

<u>Type Of Capital</u>	<u>Ratios (1)</u>	<u>Cost Rate</u>	<u>Weighted Cost Rate</u>
Long-Term Debt	50.00%	4.64% (1)	2.32%
Common Equity	50.00%	10.57% - 11.57% (2)	5.28% - 5.78%
Total	<u>100.00%</u>		<u>7.60% - 8.10%</u>

Projected Rate Year 1 (2023 Projected Interest Rates)

<u>Type Of Capital</u>	<u>Ratios (1)</u>	<u>Cost Rate</u>	<u>Weighted Cost Rate</u>
Long-Term Debt	50.00%	4.64% (1)	2.32%
Common Equity	50.00%	10.70% - 11.70% (2)	5.35% - 5.85%
Total	<u>100.00%</u>		<u>7.67% - 8.17%</u>

Projected Rate Year 2 (2024 Projected Interest Rates)

<u>Type Of Capital</u>	<u>Ratios (1)</u>	<u>Cost Rate</u>	<u>Weighted Cost Rate</u>
Long-Term Debt	50.00%	4.64% (1)	2.32%
Common Equity	50.00%	10.67% - 11.67% (2)	5.34% - 5.84%
Total	<u>100.00%</u>		<u>7.66% - 8.16%</u>

Projected Rate Year 3 (2025 Projected Interest Rates)

<u>Type Of Capital</u>	<u>Ratios (1)</u>	<u>Cost Rate</u>	<u>Weighted Cost Rate</u>
Long-Term Debt	50.00%	4.64% (1)	2.32%
Common Equity	50.00%	10.67% - 11.67% (2)	5.34% - 5.84%
Total	<u>100.00%</u>		<u>7.66% - 8.16%</u>

Notes:

- (1) Company-provided.
(2) From page 2 of this Schedule.

Carolina Water Service Inc. of North Carolina
Brief Summary of Common Equity Cost Rate

Line No.	Principal Methods	Base Year (Current Interest Rates)	Projected Year 1 (2023 Projected Int. Rates)	Projected Year 2 (2024 Projected Int. Rates)	Projected Year 3 (2025 Projected Int. Rates)
1.	Discounted Cash Flow Model (DCF) (1)	10.12%	10.12%	10.12%	10.12%
2.	Risk Premium Model (RPM) (2)	11.44%	12.01%	11.91%	11.88%
3.	Capital Asset Pricing Model (CAPM) (3)	11.75%	12.03%	12.00%	12.00%
4.	Market Models Applied to Comparable Risk, Non-Price Regulated Companies (4)	11.81%	12.08%	12.02%	12.02%
5.	Indicated Common Equity Cost Rate before Adjustment for Unique Risk	10.47% - 11.47%	10.60% - 11.60%	10.57% - 11.57%	10.57% - 11.57%
6.	Business Risk Adjustment (5)		0.10%		
8.	Indicated Common Equity Cost Rate after Adjustment	10.57% - 11.57%	10.70% - 11.70%	10.67% - 11.67%	10.67% - 11.67%

Notes:

- (1) From page 3 of this Schedule.
- (2) From page 10 of this Schedule.
- (3) From pages 26-29 of this Schedule.
- (4) From page 34 of this Schedule.
- (5) Business risk adjustment to reflect Carolina Water Services' unique risk compared to the Utility Proxy Group as detailed in the Direct Testimony.

Carolina Water Service Inc. of North Carolina
Indicated Common Equity Cost Rate Using the Discounted Cash Flow Model for the
Proxy Group of Six Water Companies

	[1]	[2]	[3]	[4]	[5]	[6]	[7]
Proxy Group of Six Water Companies	Average Dividend Yield (1)	Value Line Projected Five Year Growth in EPS (2)	Zack's Five Year Projected Growth Rate in EPS (3)	Yahoo! Finance Projected Five Year Growth in EPS (4)	Average Projected Five Year Growth in EPS (3)	Adjusted Dividend Yield (4)	Indicated Common Equity Cost Rate (5)
American States Water Company	1.87 %	5.50 %	NA %	4.40 %	4.95 %	1.92 %	6.87 %
American Water Works Company, Inc.	1.78	3.00	8.10	8.30	6.47	1.84	8.31
California Water Service Group	1.71	6.50	NA	11.70	9.10	1.79	10.89
Essential Utilities Inc.	2.41	10.00	6.10	6.80	7.63	2.50	10.13
Middlesex Water Company	1.32	4.50	NA	2.70	3.60	1.34	4.94 (6)
SJW Group	2.25	14.00	NA	9.80	11.90	2.38	14.28
						Average	10.10 %
						Median	10.13 %
						Average of Mean and Median	10.12 %

NA= Not Available

Notes:

- (1) Indicated dividend at 10/14/2022 divided by the average closing price of the last 60 trading days ending 10/14/2022 for each company.
- (2) From pages 4 through 9 of this Schedule.
- (3) Average of columns 2 through 4 excluding negative growth rates.
- (4) This reflects a growth rate component equal to one-half the conclusion of growth rate (from column 5) x column 1 to reflect the periodic payment of dividends (Gordon Model) as opposed to the continuous payment. Thus, for American States Water Company, $1.87\% \times (1 + (1/2 \times 4.95\%))$
- (5) Column 5 + column 6.
- (6) Excluding the indicated DCF cost rate of Middlesex Water Company, as its result is less than the yield on A-rated utility bonds.

Source of Information:

Value Line Investment Survey
www.zacks.com Downloaded on 10/14/2022
www.yahoo.com Downloaded on 10/14/2022

<p>(A) Primary earnings. Excludes nonrecurring gains/(losses); '06, 3%; '08, (14c); '10, (23c); '11, 10c. Next earnings due early Nov.</p> <p>(B) Dividends historically paid in early March.</p>	<p>June, September, and December. • Div'd reinvestment plan available.</p> <p>(C) In millions, adjusted for split.</p>	<p>(D) Includes intangibles. As of 12/31/21; \$1.1 million/\$0.03 a share.</p>	<p>Company's Financial Strength</p> <p>Stock's Price Stability</p> <p>Price Growth Persistence</p> <p>Earnings Predictability</p>	<p>A</p> <p>100</p> <p>85</p> <p>95</p>
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AMERICAN WATER

NYSE-AWK

RECENT PRICE

137.33

P/RATIO

31.0

(Trailing: 25.0)

Median: 25.0

RELATIVE P/E RATIO

2.15

DIV YLD

2.0%

VALUE LINE

TIMELINESS

2

Raised 9/16/22

SAFETY

3

New 7/25/08

TECHNICAL

3

Raised 10/7/22

BETA

.90

(1.00 = Market)

18-Month Target Price Range

Low-High

Midpoint (% to Mid)

\$132-\$255

\$194 (40%)

2025-27 PROJECTIONS

Price

Gain

Ann'l Total

High

Low

185

(+35%)

10%

125

(-10%)

Nil

Institutional Decisions

To Buy

To Sell

Hld's(000)

420201

102022

202022

526

450

469

369

473

415

156569

156704

151931

Percent shares traded

21

14

7

% TOT. RETURN 8/22

THIS STOCK

VL ARITH. INDEX

1 yr.

3 yr.

5 yr.

-17.2

21.7

99.2

-12.0

43.2

54.9

2006

2007

2008

2009

2010

2011

2012

2013

2014

2015

2016

2017

2018

2019

2020

2021

2022

2023

2024

2025

2026

2027

13.08

13.84

14.61

13.98

15.49

15.18

16.25

16.28

16.78

17.72

18.54

18.81

19.04

19.97

20.83

21.58

20.90

22.25

Revenues per sh

27.10

.65

d.47

2.87

2.89

3.56

3.73

4.27

4.36

4.75

5.13

5.26

5.14

6.15

6.65

7.24

10.46

8.15

8.90

"Cash Flow" per sh

10.10

d.97

d.14

1.10

1.25

1.53

1.72

2.11

2.06

2.39

2.64

2.62

2.38

3.15

3.43

3.91

6.95

4.45

4.85

Earnings per sh A

5.75

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4.40

.82

.86

.90

1.21

.84

1.21

1.33

1.47

1.62

1.78

1.96

2.15

2.36

2.57

2.80

2.80

Div'd Decl'd per sh B

3.55

4.31

4.74

6.31

4.50

4.38

5.27

5.25

5.50

5.33

6.51

7.36

8.04

8.78

9.15

10.05

9.71

13.75

11.75

Cap'l Spending per sh

11.50

23.86

28.39

25.64

22.91

23.59

24.11

25.11

26.52

27.39

28.25

29.24

30.13

32.42

33.83

35.58

40.18

41.00

43.85

Book Value per sh D

57.80

160.00

160.00

160.00

174.63

175.00

175.66

176.99

178.25

179.46

178.28

178.10

178.44

180.68

180.81

181.30

181.61

182.00

182.50

Common Shs Outs't'g C

190.00

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18.9

15.6

14.6

16.8

16.7

19.9

20.0

20.5

27.7

33.8

27.3

32.9

35.3

23.6

1.81

1.28

1.81

Avg Ann'l P/E Ratio

27.0

--

--

--

1.14

1.04

.93

1.05

1.06

1.12

1.05

1.03

1.45

1.70

1.47

1.75

1.81

1.28

1.81

1.50

Avg Ann'l Div'd Yield

2.3%

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1.9%

4.2%

3.8%

3.1%

3.4%

2.0%

2.5%

2.5%

2.0%

2.0%

2.1%

1.7%

1.6%

1.4%

1.4%

1.4%

Avg Ann'l Div'd Yield

2.3%

CAPITAL STRUCTURE as of 6/30/22

Total Debt \$11621 mil.

Due in 5 Yrs \$1849 mil.

LT Debt \$11023 mil.

LT Interest \$414 mil.

(59% of Cap'l)

2876.9

2901.9

3011.3

3159.0

3302.0

3357.0

3440.0

3610.0

3777.0

3920.0

4060

4060

Revenues (\$mill)

5150

374.3

369.3

429.8

476.0

468.0

567.0

621.0

631.0

709.0

1263.0

810

885

Net Profit (\$mill)

1095

40.7%

39.1%

39.4%

39.1%

39.2%

53.3%

28.2%

25.5%

23.3%

23.0%

21.0%

22.0%

Income Tax Rate

24.0%

6.2%

5.1%

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5.1%

2.9%

5.0%

5.0%

AFUDC % to Net Profit

5.0%

53.9%

52.4%

52.4%

53.7%

52.4%

54.7%

56.3%

58.5%

59.1%

58.6%

60.0%

61.0%

Long-Term Debt Ratio

60.0%

46.1%

47.6%

47.4%

46.2%

47.5%

45.3%

43.6%

41.4%

40.9%

41.4%

40.9%

39.0%

Common Equity Ratio

40.0%

9635.5

9940.7

10364

10911

10967

11875

13433

14760

15787

17639

19260

20500

Net Capital (\$mill)

22000

11739

12391

12900

13933

14992

16246

17409

18232

19710

21084

22900

24400

Net Plant (\$mill)

26000

5.4%

5.1%

5.5%

5.7%

5.6%

4.9%

5.4%

5.4%

5.7%

8.2%

5.5%

5.5%

Return on Total Cap'l

6.0%

8.4%

7.8%

8.7%

9.4%

9.0%

7.9%

9.7%

10.1%

11.0%

17.3%

10.5%

10.5%

Return on Shr. Equity

10.5%

8.4%

7.8%

8.7%

9.4%

9.0%

7.9%

9.7%

10.1%

11.0%

17.3%

10.5%

10.5%

Return on Com Equity

10.5%

3.6%

4.7%

4.3%

4.7%

4.0%

4.2%

4.2%

4.4%

5.0%

11.4%

4.5%

4.5%

Retained to Com Eq

4.0%

57%

40%

50%

50%

56%

68%

56%

57%

55%

34%

58%

58%

All Div'ds to Net Prof

62%

Cash Assets

576

136

97

Accts Receivable

321

271

383

Other

1009

1147

538

Current Assets

1906

1554

1018

Accts Payable

189

235

196

Debt

1811

641

598

Other

1081

1265

934

Current Liab.

2881

2141

1728

BUSINESS:

American Water Works Company, Inc. is the largest investor-owned water and wastewater utility in the U.S., providing services to approximately 14 million people in 24 states. Nonregulated business assets municipalities and military bases with the maintenance and upkeep as well. Regulated operations made up 86% of 2021 revenues. Pennsylvania is its largest market account-

ing for 21.5% of regulated revenues; New Jersey, 20.3%; Missouri, 13.9%. Has 6,400 employees. Vanguard owns 11.8% of outstanding shares; BlackRock, 8.9%; State St., 5.4%; officers & directors, less than 1.0% (4/22 Proxy). President & CEO: Susan N. Story. Chairman: George MacKenzie. Address: 1 Water Street, Camden, NJ 08102. Tel.: 856-346-8200. Internet: www.amwater.com.

Profits from American Water Works' operations ought to be flatfish for the second half of this year. After deducting a \$2.70-a-share one-time gain in 2021's final period, the company's share net was \$2.38 over the third and fourth quarters. That is the same amount we expect the utility to make in the remainder of 2022. The bottom line ought to get back on track in 2023. Assuming reasonable treatment from regulators, American Water's share net could well rise 9% to \$4.85. A healthy percentage of the profit increase will come from the utility's acquisition strategy (more below). The regulatory climate could change. American Water has enjoyed a good relationship with the authorities that determine the rates it's allowed to charge customers. State regulators have been cognizant that large capital expenditures are required to upgrade the existing infrastructure. The potential problem ahead is inflation. When prices were rising just 2% annually, it was easier to pass along higher rates to residents. When inflation is high, though, it makes it more difficult politically to approve hikes of 6%-8%, even if the costs are justified. The construction program is massive. Management has been pursuing an aggressive building policy aimed mostly at replacing antiquated pipelines and wastewater systems. In 2022, the company is on pace to spend \$2.5 billion. Since most of its pipelines and other assets are not in great shape, the spending should be ongoing. Acquisitions ought to be a driver of income growth. There are thousands of small municipally run water district in the U.S. A good portion do not have the finances to fund the necessary repairs and upgrades needed to be in compliance with EPA guidelines. American Water has been absorbing many smaller entities over the decade. This has enabled it to expand its rate base, on which it earns a return. Also, there are redundancies in the industry that can be eliminated from the districts it purchases, which should increase operating margins. These timely shares are not suitable for long-term accounts. The price of the equity is already trading within our projected 2025-2027 Target Price Range. James A. Flood October 7, 2022

ANNUAL RATES of change (per sh)

Post 1980s

Post 5 Yrs

Est'd '19-'21 to '25-'27

Revenues

3.5%

3.5%

4.5%

"Cash Flow"

9.0%

10.0%

3.5%

Earnings

12.0%

13.5%

3.0%

Dividends

9.5%

10.0%

8.5%

Book Value

4.5%

5.0%

8.0%

Cal-endar

QUARTERLY REVENUES (\$ mill.)

Full Year

Mar.31

Jun.30

Sep.30

Dec.31

2019

813

882

1013

902

3610

2020

844

931

1079

923

3777

2021

888

999

1082

951

3920

2022

842

937

1081

940

3800

2023

895

1000

1165

1000

4060

Cal-endar

EARNINGS PER SHARE A

Full Year

Mar.31

Jun.30

Sep.30

Dec.31

2019

.62

.94

1.33

.54

3.43

2020

.68

.97

1.46

.80

3.91

2021

.73

1.14

1.53

3.55

6.95

2022

.87

1.20

1.55

.83

4.45

2023

.85

1.25

1.80

.95

4.85

Cal-endar

QUARTERLY DIVIDENDS PAID B

Full Year

Mar.31

Jun.30

Sep.30

Dec.31

2018

.415

.455

.455

.455

1.78

2019

.455

.50

.50

.50

1.96

2020

.50

.55

.55

.55

2.15

2021

.55

.6025

.6025

.6025

2.36

2022

.6025

.655

.655

.655

(A) Diluted earnings. Excludes nonrecurr-

ances. '08, \$4.62; '09, \$2.63; '11, \$0.07. Disc-

op: '06, (\$0.04); '11, \$0.03; '12, (\$0.10);

'13, (\$0.01). GAAP used as of 2014. Includes

\$2.70 sh. gain from sale of HOS sub.in Q4 '21.

Net earnings report due late Oct.

(B) Dividends paid in March, June, September,

and December. B Div. reinvestment available.

(C) In millions. (D) Includes intangibles. On

12/31/21: \$1,231 billion, \$6.67/share.

(E) Pro forma numbers for '06 & '07.

Company's Financial Strength

Stock's Price Stability

Price Growth Persistence

Earnings Predictability

B++

100

100

80

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Company's Financial Strength	B++
Stock's Price Stability	95
Price Growth Persistence	85
Earnings Predictability	55

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(A) Diluted earnings. Next earnings report due early November.	(B) Dividends historically paid in mid-Feb., May, Aug., and November. ■ Div'd reinvestment plan available.	(C) In millions.	Company's Financial Strength B++ Stock's Price Stability 85 Price Growth Persistence 90 Earnings Predictability 90
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Carolina Water Service Inc. of North Carolina
Summary of Risk Premium Models for the
Proxy Group of Six Water Companies

	Base Year (Current Interest Rates)	Projected Rate Year 1 (2023 Proj Interest Rates)	Projected Rate Year 2 (2024 Proj Interest Rates)	Projected Rate Year 3 (2025 Proj Interest Rates)
Predictive Risk Premium Model (PRPM) (1)	11.57 %	12.19 %	12.11 %	12.11 %
Risk Premium Using an Adjusted Total Market Approach (2)	11.31 %	11.82 %	11.70 %	11.65 %
Average	11.44 %	12.01 %	11.91 %	11.88 %

Notes:

- (1) From pages 11 through 14 of this Schedule.
(2) From page 15 of this Schedule.

Carolina Water Service Inc. of North CarolinaIndicated ROE

Derived by the Predictive Risk Premium Model (1)

Using Current Interest Rates

	[1]	[2]	[3]	[4]	[5]	[6]	[7]
Proxy Group of Six Water Companies	L.T. Average Predicted Variance	Spot Predicted Variance	Recommended Variance (2)	GARCH Coefficient	Predicted Risk Premium (3)	Risk-Free Rate (4)	Indicated ROE (5)
American States Water Company	0.38%	0.40%	0.38%	1.8175	8.62%	3.26%	11.88%
American Water Works Company, Inc.	0.28%	0.33%	0.28%	4.1911	15.02%	3.26%	NMF
California Water Service Group	0.33%	0.42%	0.33%	1.8595	7.53%	3.26%	10.79%
Essential Utilities Inc.	0.45%	0.54%	0.45%	2.1551	12.22%	3.26%	15.48%
Middlesex Water Company	0.33%	0.68%	0.33%	1.9058	7.86%	3.26%	11.12%
SJW Group	0.41%	0.40%	0.41%	1.4632	7.50%	3.26%	10.76%
						Average	12.01%
						Median	11.12%
						Average of Mean and Median	11.57%

NMF = Not Meaningful Figure

Notes:

- (1) The Predictive Risk Premium Model uses historical data to generate a predicted variance and a GARCH coefficient. The historical data used are the equity risk premiums for the first available trading month as reported by Bloomberg Professional Services.
- (2) Based on the long-term average predicted variance.
- (3) $(1 + (\text{Column [3]} * \text{Column [4]})^{12}) - 1$.
- (4) From note 2 on page 30 of this Schedule.
- (5) Column [5] + Column [6].

Carolina Water Service Inc. of North Carolina

Indicated ROE

Derived by the Predictive Risk Premium Model (1)
Using Projected 2023 Interest Rates

	[1]	[2]	[3]	[4]	[5]	[6]	[7]
Proxy Group of Six Water Companies	L.T Average Predicted Variance	Spot Predicted Variance	Recommended Variance (2)	GARCH Coefficient	Predicted Risk Premium (3)	Risk-Free Rate (4)	Indicated ROE (5)
American States Water Company	0.38%	0.40%	0.38%	1.8175	8.62%	3.88%	12.50%
American Water Works Company, Inc.	0.28%	0.33%	0.28%	4.1911	15.02%	3.88%	NMF
California Water Service Group	0.33%	0.42%	0.33%	1.8595	7.53%	3.88%	11.41%
Essential Utilities Inc.	0.45%	0.54%	0.45%	2.1551	12.22%	3.88%	16.10%
Middlesex Water Company	0.33%	0.68%	0.33%	1.9058	7.86%	3.88%	11.74%
SJW Group	0.41%	0.40%	0.41%	1.4632	7.50%	3.88%	11.38%
						Average	12.63%
						Median	11.74%
						Average of Mean and Median	12.19%

NMF = Not Meaningful Figure

Notes:

- (1) The Predictive Risk Premium Model uses historical data to generate a predicted variance and a GARCH coefficient. The historical data used are the equity risk premiums for the first available trading month as reported by Bloomberg Professional Services.
- (2) Based on the long-term average predicted variance.
- (3) $(1 + (\text{Column [3]} * \text{Column [4]})^{1/2}) - 1$.
- (4) From note 3 on page 30 of this Schedule.
- (5) $\text{Column [5]} + \text{Column [6]}$.

Carolina Water Service Inc. of North Carolina
Indicated ROE
Derived by the Predictive Risk Premium Model (1)
Using Projected 2024 Interest Rates

	[1]	[2]	[3]	[4]	[5]	[6]	[7]
Proxy Group of Six Water Companies	L.T Average Predicted Variance	Spot Predicted Variance	Recommended Variance (2)	GARCH Coefficient	Predicted Risk Premium (3)	Risk-Free Rate (4)	Indicated ROE (5)
American States Water Company	0.38%	0.40%	0.38%	1.8175	8.62%	3.80%	12.42%
American Water Works Company, Inc.	0.28%	0.33%	0.28%	4.1911	15.02%	3.80%	NMF
California Water Service Group	0.33%	0.42%	0.33%	1.8595	7.53%	3.80%	11.33%
Essential Utilities Inc.	0.45%	0.54%	0.45%	2.1551	12.22%	3.80%	16.02%
Middlesex Water Company	0.33%	0.68%	0.33%	1.9058	7.86%	3.80%	11.66%
SJW Group	0.41%	0.40%	0.41%	1.4632	7.50%	3.80%	11.30%
						Average	12.55%
						Median	11.66%
						Average of Mean and Median	12.11%

NMF = Not Meaningful Figure

Notes:

- (1) The Predictive Risk Premium Model uses historical data to generate a predicted variance and a GARCH coefficient. The historical data used are the equity risk premiums for the first available trading month as reported by Bloomberg Professional Services.
- (2) Based on the long-term average predicted variance.
- (3) $(1 + (\text{Column [3]} * \text{Column [4]})^{1/2}) - 1$.
- (4) From note 4 on page 30 of this Schedule.
- (5) $\text{Column [5]} + \text{Column [6]}$.

Carolina Water Service Inc. of North CarolinaIndicated ROEDerived by the Predictive Risk Premium Model (1)Using Projected 2025 Interest Rates

	[1]	[2]	[3]	[4]	[5]	[6]	[7]
Proxy Group of Six Water Companies	L.T Average Predicted Variance	Spot Predicted Variance	Recommended Variance (2)	GARCH Coefficient	Predicted Risk Premium (3)	Risk-Free Rate (4)	Indicated ROE (5)
American States Water Company	0.38%	0.40%	0.38%	1.8175	8.62%	3.80%	12.42%
American Water Works Company, Inc.	0.28%	0.33%	0.28%	4.1911	15.02%	3.80%	NMF
California Water Service Group	0.33%	0.42%	0.33%	1.8595	7.53%	3.80%	11.33%
Essential Utilities Inc.	0.45%	0.54%	0.45%	2.1551	12.22%	3.80%	16.02%
Middlesex Water Company	0.33%	0.68%	0.33%	1.9058	7.86%	3.80%	11.66%
SJW Group	0.41%	0.40%	0.41%	1.4632	7.50%	3.80%	11.30%
						Average	12.55%
						Median	11.66%
						Average of Mean and Median	12.11%

NMF = Not Meaningful Figure

Notes:

- (1) The Predictive Risk Premium Model uses historical data to generate a predicted variance and a GARCH coefficient. The historical data used are the equity risk premiums for the first available trading month as reported by Bloomberg Professional Services.
- (2) Based on the long-term average predicted variance.
- (3) $(1 + (\text{Column [3]} * \text{Column [4]})^{1/2}) - 1$.
- (4) From note 5 on page 30 of this Schedule.
- (5) $\text{Column [5]} + \text{Column [6]}$.

Carolina Water Service Inc. of North Carolina
Indicated Common Equity Cost Rate
Through Use of a Risk Premium Model
Using an Adjusted Total Market Approach

<u>Line No.</u>		<u>Results using Current Interest Rates</u>	<u>Results using Projected 2023 Interest Rates</u>	<u>Results using Projected 2024 Interest Rates</u>	<u>Results using Projected 2025 Interest Rates</u>
1.	Prospective Yield on Aaa Rated Corporate Bonds (1)		5.28 %	5.00	4.90
2.	Adjustment to Reflect Yield Spread Between Aaa Rated Corporate Bonds and A2 Rated Public Utility Bonds		<u>0.70</u> (2)	<u>0.70</u>	<u>0.70</u>
3.	Adjusted Prospective Yield on A2 Rated Public Utility Bonds		5.98 %	5.70 %	5.60 %
4.	Current Yield on A2 Rated Public Utility Bonds (3)	4.93 %			
5.	Adjustment to Reflect Bond Rating Difference of Proxy Group (4)	<u>0.12</u>	<u>0.12</u>	<u>0.12</u>	<u>0.12</u>
6.	Adjusted Prospective Bond Yield	5.05 %	6.10 %	5.82 %	5.72 %
7.	Equity Risk Premium (5)	<u>6.26</u>	<u>5.72</u>	<u>5.88</u>	<u>5.93</u>
8.	Risk Premium Derived Common Equity Cost Rate	<u>11.31 %</u>	<u>11.82 %</u>	<u>11.70 %</u>	<u>11.65 %</u>

- Notes: (1) Consensus forecast of Moody's Aaa Rated Corporate bonds from Blue Chip Financial Forecasts (see pages 22 and 23 of this Schedule).
(2) The average yield spread of A2 rated public utility bonds over Aaa rated corporate bonds of 0.70% from page 16 of this Schedule.
(3) Three-month average A2-rated utility bond yield ending September 2022 as shown on page 16 of this Schedule.
(4) Adjustment to reflect the A3 Moody's long-term rating of the Utility Proxy Group as shown on page 17 of this Schedule. The 0.12% upward adjustment is derived by taking 1/3 of the spread between A2 and Baa2 Public Utility Bonds ($1/3 * 0.35\% = 0.12\%$) as derived from page 16 of this Schedule.
(5) From page 19 of this Schedule.

Carolina Water Service Inc. of North Carolina
Interest Rates and Bond Spreads for
Moody's Corporate and Public Utility Bonds

Selected Bond Yields

	[1]	[2]	[3]
	<u>Aaa Rated Corporate Bond</u>	<u>A2 Rated Public Utility Bond</u>	<u>Baa2 Rated Public Utility Bond</u>
Sep-2022	4.57 %	5.26 %	5.60 %
Aug-2022	4.07	4.76	5.09
Jul-2022	<u>4.06</u>	<u>4.78</u>	<u>5.15</u>
Average	<u>4.23 %</u>	<u>4.93 %</u>	<u>5.28 %</u>

Selected Bond Spreads

A2 Rated Public Utility Bonds Over Aaa Rated Corporate Bonds:

0.70 % (1)

Baa2 Rated Public Utility Bonds Over A2 Rated Public Utility Bonds:

0.35 % (2)

Notes:

(1) Column [2] - Column [1].

(2) Column [3] - Column [2].

Source of Information:

Bloomberg Professional Services

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Dec 06 2022

Carolina Water Service Inc. of North Carolina
Comparison of Long-Term Issuer Ratings for the
Proxy Group of Six Water Companies

	Moody's		Standard & Poor's	
	Long-Term Issuer Rating		Long-Term Issuer Rating	
	October 2022		October 2022	
<u>Proxy Group of Six Water Companies</u>	<u>Long-Term Issuer Rating</u>	<u>Numerical Weighting (1)</u>	<u>Long-Term Issuer Rating</u>	<u>Numerical Weighting (1)</u>
American States Water Company (2)	A2	6.0	A+	5.0
American Water Works Company, Inc. (3)	A3	7.0	A	6.0
California Water Service Group	NR	--	A+	5.0
Essential Utilities Inc. (4)	Baa1	8.0	A	6.0
Middlesex Water Company	NR	--	A	6.0
SJW Group (5)	NR	--	A-	6.5
Average	<u>A3</u>	<u>7.0</u>	<u>A</u>	<u>5.8</u>

Notes:

- (1) From page 18 of this Schedule.
- (2) Ratings are that of Golden State Water Company.
- (3) Ratings are that of New Jersey American Water Co., and Pennsylvania American Water Co.
- (4) Ratings are that of PNG Companies and Aqua Pennsylvania, Inc. (S&P).
- (5) Ratings are that of San Jose Water Company, Connecticut Water Inc. and Connecticut Water Service Inc.

Source Information: Moody's Investors Service
Standard & Poor's Global Utilities Rating Service

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Dec 06 2022

Numerical Assignment for
Moody's and Standard & Poor's Bond Ratings

<u>Moody's Bond Rating</u>	<u>Numerical Bond Weighting</u>	<u>Standard & Poor's Bond Rating</u>
Aaa	1	AAA
Aa1	2	AA+
Aa2	3	AA
Aa3	4	AA-
A1	5	A+
A2	6	A
A3	7	A-
Baa1	8	BBB+
Baa2	9	BBB
Baa3	10	BBB-
Ba1	11	BB+
Ba2	12	BB
Ba3	13	BB-
B1	14	B+
B2	15	B
B3	16	B-

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Dec 06 2022

Carolina Water Service Inc. of North Carolina
Judgment of Equity Risk Premium for the
Results using Current Interest Rates

Line No.		Results using Current Interest Rates	Results Using Projected 2023 Interest Rates	Results Using Projected 2024 Interest Rates	Results Using Projected 2025 Interest Rates
1.	Calculated equity risk premium based on the total market using the beta approach (1)	7.34 %	6.84 %	7.00 %	7.05 %
2.	Mean equity risk premium based on a study using the holding period returns of public utilities with A2 rated bonds (2)	<u>5.18</u>	<u>4.59</u>	<u>4.75</u>	<u>4.80</u>
3.	Average equity risk premium	<u><u>6.26</u></u> %	<u><u>5.72</u></u> %	<u><u>5.88</u></u> %	<u><u>5.93</u></u> %

Notes: (1) From page 20 of this Schedule.
(2) From page 24 of this Schedule.

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Dec 06 2022

Carolina Water Service Inc. of North Carolina
Derivation of Equity Risk Premium Based on the Total Market Approach
Using the Beta for the
Proxy Group of Six Water Companies

<u>Line No.</u>	<u>Equity Risk Premium Measure</u>	<u>Results using Current Interest Rates</u>	<u>Results Using Projected 2023 Interest Rates</u>	<u>Results Using Projected 2024 Interest Rates</u>	<u>Results Using Projected 2025 Interest Rates</u>
1.	Ibbotson Equity Risk Premium (1)	6.13 %	6.13 %	6.13 %	6.13 %
2.	Regression on Ibbotson Risk Premium Data (2)	8.11	6.97	7.32	7.45
3.	Ibbotson Equity Risk Premium based on PRPM (3)	10.12	10.12	10.12	10.12
4.	Equity Risk Premium Based on Value Line Summary and Index (4)	11.65	10.75	11.03	11.13
5.	Equity Risk Premium Based on Value Line S&P 500 Companies (5)	12.28	11.38	11.66	11.76
6.	Equity Risk Premium Based on Bloomberg S&P 500 Companies (6)	8.16	7.26	7.54	7.64
7.	Conclusion of Equity Risk Premium	9.41 %	8.77 %	8.97 %	9.04 %
8.	Adjusted Beta (7)	0.78	0.78	0.78	0.78
9.	Forecasted Equity Risk Premium	7.34 %	6.84 %	7.00 %	7.05 %

Notes provided on page 21 of this Schedule.

Carolina Water Service Inc. of North Carolina
Derivation of Equity Risk Premium Based on the Total Market Approach
Using the Beta for the
Proxy Group of Six Water Companies

Notes:

- (1) Based on the arithmetic mean historical monthly returns on large company common stocks from Kroll 2022 SBBI® 2022 Yearbook minus the arithmetic mean monthly yield of Moody's average Aaa and Aa2 corporate bonds from 1928-2021.
- (2) This equity risk premium is based on a regression of the monthly equity risk premiums of large company common stocks relative to Moody's average Aaa and Aa2 rated corporate bond yields from 1928-2021 referenced in Note 1 above. The equity risk premium is calculated using current and projected interest rates as indicated. The projected Aaa corporate bond yields for 2023 through 2025 are shown on line 1 of page 15 of this Schedule. The current interest rate is the three-month average Aaa and Aa2 corporate bond yields ending September 2022.
- (3) The Predictive Risk Premium Model (PRPM) is discussed in the accompanying direct testimony. The Ibbotson equity risk premium based on the PRPM is derived by applying the PRPM to the monthly risk premiums between Ibbotson large company common stock monthly returns and average Aaa and Aa2 corporate monthly bond yields, from January 1928 through September 2022.
- (4) The equity risk premium based on the Value Line Summary and Index is derived by subtracting the relevant bond yield from the projected 3-5 year total annual market return of 16.03% (described fully in note 1 on page 30 of this Schedule).
- (5) The equity risk premium based on Value Line data for the S&P 500 companies subtracts the relevant bond yield from the expected market return of 16.66% which was derived using expected dividend yields to represent the income return and expected earnings growth to represent the capital appreciation return.
- (6) The equity risk premium based on Bloomberg data for the S&P 500 companies subtracts the relevant bond yield from the expected market return of 12.54%, which was derived using expected dividend yields to represent the income return and expected earnings growth to represent the capital appreciation return.
- (7) Average of mean and median beta from pages 26 - 29 of this Schedule.

Sources of Information:

Kroll 2022 SBBI® Yearbook
Industrial Manual and Mergent Bond Record
Value Line Summary and Index
Blue Chip Financial Forecasts, June 1, 2022 and September 30, 2022
Bloomberg Professional Services

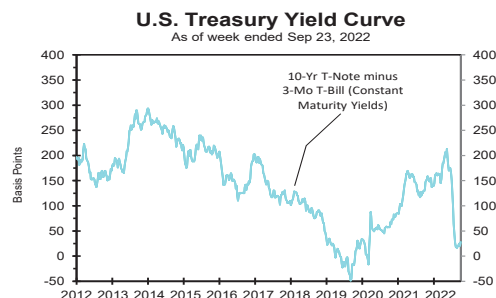
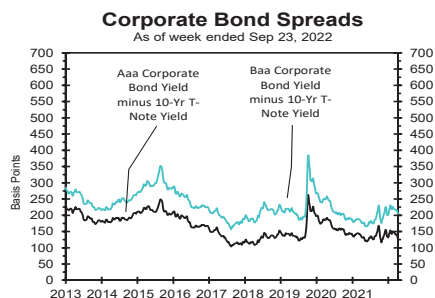
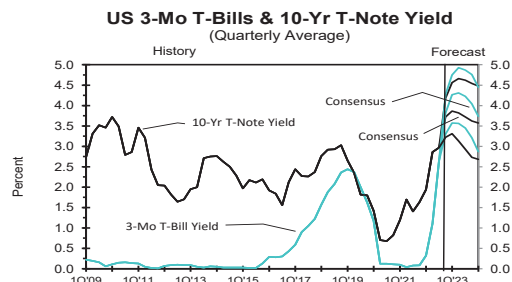
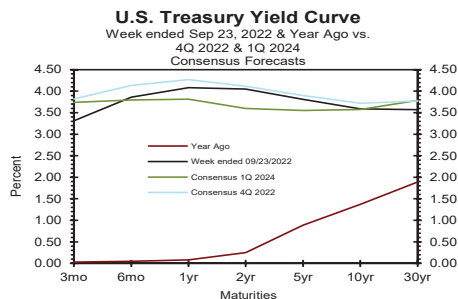
2 ■ BLUE CHIP FINANCIAL FORECASTS ■ SEPTEMBER 30, 2022

Consensus Forecasts of U.S. Interest Rates and Key Assumptions

Interest Rates	History								Consensus Forecasts-Quarterly Avg.					
	Average For Week Ending				Average For Month				Latest Qtr	4Q	1Q	2Q	3Q	4Q
	Sep 23	Sep 16	Sep 9	Sep 2	Aug	Jul	Jun	3Q 2022*	2022	2023	2023	2023	2023	2024
Federal Funds Rate	2.33	2.33	2.33	2.33	2.33	1.68	1.21	2.12	3.8	4.3	4.4	4.3	4.2	3.9
Prime Rate	5.50	5.50	5.50	5.50	5.50	4.85	4.38	5.29	6.9	7.4	7.5	7.4	7.3	6.9
SOFR	2.55	2.28	2.28	2.29	2.28	1.60	1.11	2.09	3.6	4.2	4.3	4.3	4.1	3.7
Commercial Paper, 1-mo.	3.04	2.64	2.54	2.39	2.33	1.90	1.35	2.26	3.8	4.4	4.5	4.4	4.3	3.9
Treasury bill, 3-mo.	3.31	3.22	3.06	2.96	2.72	2.30	1.54	2.71	3.8	4.3	4.3	4.2	4.0	3.7
Treasury bill, 6-mo.	3.86	3.72	3.45	3.32	3.15	2.87	2.17	3.20	4.1	4.5	4.5	4.3	4.1	3.8
Treasury bill, 1 yr.	4.08	3.91	3.62	3.48	3.28	3.02	2.65	3.35	4.3	4.5	4.5	4.3	4.1	3.8
Treasury note, 2 yr.	4.05	3.77	3.50	3.45	3.25	3.04	3.00	3.33	4.1	4.3	4.2	4.0	3.8	3.6
Treasury note, 5 yr.	3.81	3.59	3.41	3.31	3.03	2.96	3.19	3.17	3.9	4.1	4.0	3.8	3.7	3.6
Treasury note, 10 yr.	3.59	3.42	3.31	3.17	2.90	2.90	3.14	3.05	3.7	3.9	3.8	3.7	3.6	3.6
Treasury note, 30 yr.	3.57	3.50	3.46	3.29	3.13	3.10	3.25	3.23	3.8	3.9	4.0	3.9	3.8	3.8
Corporate Aaa bond	4.86	4.77	4.73	4.57	4.35	4.39	4.52	4.49	5.0	5.4	5.4	5.4	5.2	5.1
Corporate Baa bond	5.64	5.53	5.48	5.33	5.08	5.15	5.22	5.24	6.0	6.4	6.5	6.4	6.3	6.1
State & Local bonds	4.35	4.21	4.16	4.08	3.84	3.82	3.94	3.95	4.4	4.6	4.7	4.6	4.5	4.4
Home mortgage rate	6.29	6.02	5.89	5.66	5.22	5.41	5.52	5.53	6.3	6.4	6.3	6.2	6.1	5.9

Key Assumptions	History								Consensus Forecasts-Quarterly					
	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q
	2020	2021	2021	2021	2021	2022	2022	2022**	2022	2023	2023	2023	2023	2024
Fed's AFE \$ Index	105.1	103.4	102.9	105.0	107.0	108.4	113.7	118.5	121.4	121.5	120.4	118.8	117.6	117.0
Real GDP	3.9	6.3	7.0	2.7	7.0	-1.6	-0.6	1.4	0.7	0.1	0.1	0.9	1.3	1.6
GDP Price Index	2.5	5.2	6.3	6.2	6.8	8.3	9.0	4.9	4.3	3.5	3.0	2.8	2.7	2.5
Consumer Price Index	2.2	4.1	8.2	6.7	7.9	9.2	10.5	5.3	3.9	3.4	3.0	2.6	2.5	2.4
PCE Price Index	1.6	4.5	6.4	5.6	6.2	7.5	7.3	4.5	3.7	3.2	2.7	2.5	2.4	2.3

Forecasts for interest rates and the Federal Reserve's Advanced Foreign Economies Index represent averages for the quarter. Forecasts for Real GDP, GDP Price Index, CPI and PCE Price Index are seasonally-adjusted annual rates of change (saar). Individual panel members' forecasts are on pages 4 through 9. Historical data: Treasury rates from the Federal Reserve Board's H.15; AAA-AA and A-BBB corporate bond yields from Bank of America-Merrill Lynch and are 15+ years, yield to maturity; State and local bond yields from Bank of America-Merrill Lynch, A-rated, yield to maturity; Mortgage rates from Freddie Mac, 30-year, fixed; SOFR from the New York Fed. *Interest rate data for 3Q 2022 based on historical data through the week ended Sep 23. **Data for 3Q 2022 for the Fed's AFE \$ Index based on data through the week ended September 23. Figures for 3Q 2022 Real GDP, GDP Chained Price Index, Consumer Price Index, and PCE Price Index are consensus forecasts from the September 2022 survey.



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14 ■ BLUE CHIP FINANCIAL FORECASTS ■ JUNE 1, 2022

Long-Range Survey:

The table below contains the results of our twice-annual long-range CONSENSUS survey. There are also Top 10 and Bottom 10 averages for each variable. Shown are consensus estimates for the years 2023 through 2028 and averages for the five-year periods 2024-2028 and 2029-2033. Apply these projections cautiously. Few if any economic, demographic and political forces can be evaluated accurately over such long time spans.

		Average For The Year						Five-Year Averages	
		2023	2024	2025	2026	2027	2028	2024-2028	2029-2033
1. Federal Funds Rate	CONSENSUS	3.0	2.7	2.5	2.5	2.5	2.5	2.6	2.5
	Top 10 Average	3.5	3.3	3.0	2.8	2.8	2.8	3.0	2.8
	Bottom 10 Average	2.6	2.1	2.0	2.2	2.2	2.2	2.2	2.1
2. Prime Rate	CONSENSUS	6.1	5.9	5.7	5.6	5.6	5.6	5.7	5.6
	Top 10 Average	6.6	6.4	6.1	6.0	6.0	6.0	6.1	5.9
	Bottom 10 Average	5.6	5.3	5.2	5.3	5.3	5.3	5.3	5.2
3. SOFR	CONSENSUS	3.0	2.8	2.5	2.5	2.5	2.5	2.6	2.5
	Top 10 Average	3.4	3.3	3.0	2.9	2.8	2.8	3.0	2.8
	Bottom 10 Average	2.7	2.2	2.0	2.2	2.2	2.2	2.2	2.1
4. Commercial Paper, 1-Mo	CONSENSUS	3.2	2.9	2.6	2.6	2.6	2.6	2.7	2.6
	Top 10 Average	3.5	3.4	3.1	2.9	2.9	2.9	3.0	2.9
	Bottom 10 Average	2.8	2.5	2.3	2.4	2.4	2.3	2.3	2.3
5. Treasury Bill Yield, 3-Mo	CONSENSUS	3.0	2.8	2.6	2.6	2.6	2.5	2.6	2.5
	Top 10 Average	3.6	3.4	3.1	3.1	3.0	2.9	3.1	2.9
	Bottom 10 Average	2.5	2.2	2.0	2.1	2.2	2.2	2.1	2.2
6. Treasury Bill Yield, 6-Mo	CONSENSUS	3.2	2.9	2.7	2.7	2.7	2.6	2.7	2.6
	Top 10 Average	3.8	3.6	3.2	3.2	3.1	3.0	3.2	3.0
	Bottom 10 Average	2.6	2.2	2.1	2.2	2.3	2.3	2.2	2.3
7. Treasury Bill Yield, 1-Yr	CONSENSUS	3.2	3.0	2.9	2.9	2.8	2.8	2.9	2.8
	Top 10 Average	3.9	3.8	3.5	3.4	3.3	3.2	3.4	3.2
	Bottom 10 Average	2.6	2.4	2.2	2.4	2.4	2.4	2.3	2.4
8. Treasury Note Yield, 2-Yr	CONSENSUS	3.4	3.2	3.1	3.1	3.0	3.0	3.1	3.0
	Top 10 Average	4.3	4.1	3.8	3.6	3.5	3.5	3.7	3.5
	Bottom 10 Average	2.7	2.4	2.3	2.5	2.6	2.5	2.4	2.5
9. Treasury Note Yield, 5-Yr	CONSENSUS	3.5	3.4	3.3	3.3	3.3	3.2	3.3	3.3
	Top 10 Average	4.3	4.2	4.1	3.9	3.8	3.8	3.9	3.8
	Bottom 10 Average	2.8	2.6	2.5	2.7	2.7	2.7	2.6	2.8
10. Treasury Note Yield, 10-Yr	CONSENSUS	3.5	3.5	3.4	3.5	3.5	3.4	3.5	3.5
	Top 10 Average	4.4	4.4	4.2	4.2	4.1	4.1	4.2	4.1
	Bottom 10 Average	2.8	2.5	2.6	2.9	2.9	2.8	2.7	2.8
11. Treasury Bond Yield, 30-Yr	CONSENSUS	3.8	3.8	3.8	3.9	3.8	3.8	3.8	3.9
	Top 10 Average	4.6	4.7	4.5	4.5	4.4	4.5	4.5	4.5
	Bottom 10 Average	3.0	2.9	3.0	3.3	3.2	3.2	3.1	3.2
12. Corporate Aaa Bond Yield	CONSENSUS	5.0	5.0	4.9	5.0	5.0	4.9	4.9	5.0
	Top 10 Average	5.7	5.7	5.6	5.5	5.5	5.5	5.5	5.6
	Bottom 10 Average	4.4	4.2	4.3	4.4	4.4	4.4	4.3	4.4
13. Corporate Baa Bond Yield	CONSENSUS	6.0	5.9	5.8	5.9	5.9	5.9	5.9	5.9
	Top 10 Average	6.6	6.6	6.4	6.3	6.3	6.3	6.4	6.4
	Bottom 10 Average	5.4	5.3	5.2	5.4	5.4	5.4	5.3	5.4
14. State & Local Bonds Yield	CONSENSUS	4.3	4.3	4.2	4.3	4.3	4.3	4.3	4.3
	Top 10 Average	5.0	5.0	4.8	4.8	4.7	4.7	4.8	4.8
	Bottom 10 Average	3.7	3.7	3.7	3.9	3.9	3.9	3.8	3.9
15. Home Mortgage Rate	CONSENSUS	5.7	5.5	5.4	5.4	5.4	5.4	5.4	5.4
	Top 10 Average	6.4	6.4	6.1	6.0	6.0	6.0	6.1	6.0
	Bottom 10 Average	4.9	4.7	4.6	4.8	4.8	4.8	4.7	4.8
A. Fed's AFE Nominal \$ Index	CONSENSUS	113.8	112.8	111.9	111.0	110.6	110.4	111.3	109.8
	Top 10 Average	115.6	114.7	114.0	113.4	113.1	112.8	113.6	112.7
	Bottom 10 Average	112.2	111.0	109.9	108.8	108.2	107.9	109.2	107.4
		Year-Over-Year, % Change						Five-Year Averages	
		2023	2024	2025	2026	2027	2028	2024-2028	2029-2033
B. Real GDP	CONSENSUS	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.0
	Top 10 Average	2.6	2.4	2.4	2.4	2.4	2.4	2.4	2.3
	Bottom 10 Average	1.5	1.5	1.8	1.8	1.8	1.8	1.7	1.8
C. GDP Chained Price Index	CONSENSUS	3.0	2.4	2.3	2.3	2.2	2.2	2.3	2.2
	Top 10 Average	3.7	2.8	2.7	2.6	2.6	2.6	2.7	2.6
	Bottom 10 Average	2.3	2.0	1.9	1.9	1.9	1.9	1.9	1.9
D. Consumer Price Index	CONSENSUS	3.2	2.4	2.4	2.4	2.3	2.3	2.4	2.3
	Top 10 Average	4.1	3.0	2.9	2.8	2.7	2.7	2.8	2.7
	Bottom 10 Average	2.3	1.8	2.0	2.0	1.9	1.9	1.9	1.9
E. PCE Price Index	CONSENSUS	3.0	2.3	2.3	2.3	2.3	2.2	2.3	2.3
	Top 10 Average	3.8	2.8	2.8	2.7	2.7	2.6	2.7	2.7
	Bottom 10 Average	2.2	1.8	1.9	1.9	1.9	1.8	1.9	1.9

Carolina Water Service Inc. of North Carolina
Derivation of Mean Equity Risk Premium Based Studies
Using Holding Period Returns and
Projected Market Appreciation of the S&P Utility Index

Line No.		Results using Current Interest Rates	Results using Projected 2023 Interest Rates	Results using Projected 2024 Interest Rates	Results using Projected 2025 Interest Rates
	Equity Risk Premium based on S&P Utility Index Holding Period Returns (1):				
1.	Historical Equity Risk Premium	4.28 %	4.28 %	4.28 %	4.28 %
2.	Regression of Historical Equity Risk Premium (2)	5.58	4.72	4.95	5.03
3.	Forecasted Equity Risk Premium Based on PRPM (3)	5.13	5.13	5.13	5.13
4.	Forecasted Equity Risk Premium based on Projected Total Return on the S&P Utilities Index (Value Line Data) (4)	4.60	3.55	3.83	3.93
5.	Forecasted Equity Risk Premium based on Projected Total Return on the S&P Utilities Index (Bloomberg Data) (5)	6.31	5.26	5.54	5.64
6.	Average Equity Risk Premium (6)	5.18 %	4.59 %	4.75 %	4.80 %

Notes provided on page 25 of this Schedule.

Carolina Water Service Inc. of North Carolina
Derivation of Mean Equity Risk Premium Based Studies
Using Holding Period Returns and
Projected Market Appreciation of the S&P Utility Index

Notes:

- (1) Based on S&P Public Utility Index monthly total returns and Moody's Public Utility Bond average monthly yields from 1928-2021. Holding period returns are calculated based upon income received (dividends and interest) plus the relative change in the market value of a security over a one-year holding period.
- (2) This equity risk premium is based on a regression of the monthly equity risk premiums of the S&P Utility Index relative to Moody's A2 rated public utility bond yields from 1928 - 2021 referenced in note 1 above. Using the equation generated from the regression, an expected equity risk premium is calculated using the relevant bond yield. The current and projected A2 rated utility bond yields are shown on lines 4 and 3 of page 15 of this Schedule, respectively.
- (3) The Predictive Risk Premium Model (PRPM) is applied to the risk premium of the monthly total returns of the S&P Utility Index and the monthly yields on Moody's A2 rated public utility bonds from January 1928 - September 2022.
- (4) The equity risk premium based on Value Line data for the S&P Utilities Index subtracts the relevant bond yield from the expected market return of 9.53%, which was derived using expected dividend yields to represent the income return and expected earnings growth to represent the capital appreciation return.
- (5) The equity risk premium based on Bloomberg data for the S&P Utilities Index subtracts the relevant bond yield from the expected market return of 11.24%, which was derived using expected dividend yields to represent the income return and expected earnings growth to represent the capital appreciation return.
- (6) Average of lines 1 through 5.

Carolina Water Service Inc. of North Carolina
Indicated Common Equity Cost Rate Through Use
of the Traditional Capital Asset Pricing Model (CAPM) and Empirical Capital Asset Pricing Model (ECAPM)
Using Current Interest Rates

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Proxy Group of Six Water Companies	Value Line Adjusted Beta	Bloomberg Adjusted Beta	Average Beta	Market Risk Premium (1)	Risk-Free Rate (2)	Traditional CAPM Cost Rate	ECAPM Cost Rate	Indicated Common Equity Cost Rate (6)
American States Water Company	0.65	0.74	0.70	10.59 %	3.26 %	10.68 %	11.47 %	11.07 %
American Water Works Company, Inc.	0.90	0.89	0.90	10.59	3.26	12.79	13.06	12.93
California Water Service Group	0.70	0.81	0.75	10.59	3.26	11.21	11.87	11.54
Essential Utilities Inc.	0.95	0.86	0.91	10.59	3.26	12.90	13.14	13.02
Middlesex Water Company	0.70	0.75	0.72	10.59	3.26	10.89	11.63	11.26
SJW Group	0.80	0.72	0.76	10.59	3.26	11.31	11.95	11.63
Mean			<u>0.79</u>			<u>11.63 %</u>	<u>12.19 %</u>	<u>11.91 %</u>
Median			<u>0.76</u>			<u>11.26 %</u>	<u>11.91 %</u>	<u>11.59 %</u>
Average of Mean and Median			<u>0.78</u>			<u>11.45 %</u>	<u>12.05 %</u>	<u>11.75 %</u>

Notes on page 30 of this Schedule.

Carolina Water Service Inc. of North Carolina
Indicated Common Equity Cost Rate Through Use
of the Traditional Capital Asset Pricing Model (CAPM) and Empirical Capital Asset Pricing Model (ECAPM)
Using Projected 2023 Interest Rates

Proxy Group of Six Water Companies	[1] Value Line Adjusted Beta	[2] Bloomberg Adjusted Beta	[3] Average Beta	[4] Market Risk Premium (1)	[5] Risk-Free Rate (3)	[6] Traditional CAPM Cost Rate	[7] ECAPM Cost Rate	[8] Indicated Common Equity Cost Rate (6)
American States Water Company	0.65	0.74	0.70	10.17 %	3.88 %	11.00 %	11.76 %	11.38 %
American Water Works Company, Inc.	0.90	0.89	0.90	10.17	3.88	13.03	13.29	13.16
California Water Service Group	0.70	0.81	0.75	10.17	3.88	11.51	12.14	11.83
Essential Utilities Inc.	0.95	0.86	0.91	10.17	3.88	13.13	13.36	13.25
Middlesex Water Company	0.70	0.75	0.72	10.17	3.88	11.20	11.91	11.56
SJW Group	0.80	0.72	0.76	10.17	3.88	11.61	12.22	11.91
Mean			<u>0.79</u>			<u>11.91 %</u>	<u>12.45 %</u>	<u>12.18 %</u>
Median			<u>0.76</u>			<u>11.56 %</u>	<u>12.18 %</u>	<u>11.87 %</u>
Average of Mean and Median			<u>0.78</u>			<u>11.74 %</u>	<u>12.32 %</u>	<u>12.03 %</u>

Notes on page 30 of this Schedule.

Carolina Water Service Inc. of North Carolina
Indicated Common Equity Cost Rate Through Use
of the Traditional Capital Asset Pricing Model (CAPM) and Empirical Capital Asset Pricing Model (ECAPM)
Using Projected 2024 Interest Rates

Proxy Group of Six Water Companies	[1] Value Line Adjusted Beta	[2] Bloomberg Adjusted Beta	[3] Average Beta	[4] Market Risk Premium (1)	[5] Risk-Free Rate (4)	[6] Traditional CAPM Cost Rate	[7] ECAPM Cost Rate	[8] Indicated Common Equity Cost Rate (6)
American States Water Company	0.65	0.74	0.70	10.22 %	3.80 %	10.96 %	11.72 %	11.34 %
American Water Works Company, Inc.	0.90	0.89	0.90	10.22	3.80	13.00	13.26	13.13
California Water Service Group	0.70	0.81	0.75	10.22	3.80	11.47	12.11	11.79
Essential Utilities Inc.	0.95	0.86	0.91	10.22	3.80	13.10	13.33	13.22
Middlesex Water Company	0.70	0.75	0.72	10.22	3.80	11.16	11.88	11.52
SJW Group	0.80	0.72	0.76	10.22	3.80	11.57	12.18	11.88
Mean			<u>0.79</u>			<u>11.88 %</u>	<u>12.41 %</u>	<u>12.15 %</u>
Median			<u>0.76</u>			<u>11.52 %</u>	<u>12.15 %</u>	<u>11.84 %</u>
Average of Mean and Median			<u>0.78</u>			<u>11.70 %</u>	<u>12.28 %</u>	<u>12.00 %</u>

Notes on page 30 of this Schedule.

Carolina Water Service Inc. of North Carolina
Indicated Common Equity Cost Rate Through Use
of the Traditional Capital Asset Pricing Model (CAPM) and Empirical Capital Asset Pricing Model (ECAPM)
Using Projected 2025 Interest Rates

Proxy Group of Six Water Companies	[1] Value Line Adjusted Beta	[2] Bloomberg Adjusted Beta	[3] Average Beta	[4] Market Risk Premium (1)	[5] Risk-Free Rate (5)	[6] Traditional CAPM Cost Rate	[7] ECAPM Cost Rate	[8] Indicated Common Equity Cost Rate (6)
American States Water Company	0.65	0.74	0.70	10.22 %	3.80 %	10.96 %	11.72 %	11.34 %
American Water Works Company, Inc.	0.90	0.89	0.90	10.22	3.80	13.00	13.26	13.13
California Water Service Group	0.70	0.81	0.75	10.22	3.80	11.47	12.11	11.79
Essential Utilities Inc.	0.95	0.86	0.91	10.22	3.80	13.10	13.33	13.22
Middlesex Water Company	0.70	0.75	0.72	10.22	3.80	11.16	11.88	11.52
SJW Group	0.80	0.72	0.76	10.22	3.80	11.57	12.18	11.88
Mean			<u>0.79</u>			<u>11.88 %</u>	<u>12.41 %</u>	<u>12.15 %</u>
Median			<u>0.76</u>			<u>11.52 %</u>	<u>12.15 %</u>	<u>11.84 %</u>
Average of Mean and Median			<u>0.78</u>			<u>11.70 %</u>	<u>12.28 %</u>	<u>12.00 %</u>

Notes on page 30 of this Schedule.

Carolina Water Service Inc. of North Carolina
Notes to Accompany the Application of the CAPM and ECAPM

Notes:

- (1) The market risk premium (MRP) is derived by using six different measures from three sources: Ibbotson, Value Line, and Bloomberg as illustrated below:

	Using Current Interest Rates	Using Projected 2023 Interest Rates	Using Projected 2024 Interest Rates	Using Projected 2025 Interest Rates
<u>Historical Data MRP Estimates:</u>				
Measure 1: Ibbotson Arithmetic Mean MRP (1926-2021)				
Arithmetic Mean Monthly Returns for Large Stocks 1926-2021:	12.37 %	12.37 %	12.37 %	12.37 %
Arithmetic Mean Income Returns on Long-Term Government Bonds:	5.02	5.02	5.02	5.02
MRP based on Ibbotson Historical Data:	<u>7.35 %</u>	<u>7.35 %</u>	<u>7.35 %</u>	<u>7.35 %</u>
Measure 2: Application of a Regression Analysis to Ibbotson Historical Data (1926-2021)				
	<u>9.42 %</u>	<u>8.74 %</u>	<u>8.83 %</u>	<u>8.83 %</u>
Measure 3: Application of the PRPM to Ibbotson Historical Data: (January 1926 - September 2022)				
	<u>11.34 %</u>	<u>11.34 %</u>	<u>11.34 %</u>	<u>11.34 %</u>
<u>Value Line MRP Estimates:</u>				
Measure 4: Value Line Projected MRP (Thirteen weeks ending October 14, 2022)				
Total projected return on the market 3-5 years hence*:	16.03 %	16.03 %	16.03 %	16.03 %
Projected Risk-Free Rate (see note 2):	3.26	3.88	3.80	3.80
MRP based on Value Line Summary & Index:	<u>12.77 %</u>	<u>12.15 %</u>	<u>12.23 %</u>	<u>12.23 %</u>
*Forecasted 3-5 year capital appreciation plus expected dividend yield				
Measure 5: Value Line Projected Return on the Market based on the S&P 500				
Total return on the Market based on the S&P 500:	16.66 %	16.66 %	16.66 %	16.66 %
Projected Risk-Free Rate (see note 2):	3.26	3.88	3.80	3.80
MRP based on Value Line data	<u>13.40 %</u>	<u>12.78 %</u>	<u>12.86 %</u>	<u>12.86 %</u>
Measure 6: Bloomberg Projected MRP				
Total return on the Market based on the S&P 500:	12.54 %	12.54 %	12.54 %	12.54 %
Projected Risk-Free Rate (see note 2):	3.26	3.88	3.80	3.80
MRP based on Bloomberg data	<u>9.28 %</u>	<u>8.66 %</u>	<u>8.74 %</u>	<u>8.74 %</u>
Average of Value Line, Ibbotson, and Bloomberg MRP:	<u>10.59 %</u>	<u>10.17 %</u>	<u>10.22 %</u>	<u>10.22 %</u>

- (2) Three-month average on 30-year Treasury bond yield ended September, 2022 as shown below:

Jul-22	3.10 %
Aug-22	3.13
Sep-22	3.56
	<u>3.26 %</u>

- (3) For reasons explained in the Direct Testimony, the appropriate risk-free rate for cost of capital purposes is the average forecast of 30 year Treasury Bonds per the consensus of nearly 50 economists reported in Blue Chip Financial Forecasts. (See pages 22-23 of this Schedule.) The projection of the 2023 risk-free rate is illustrated below:

First Quarter 2023	3.90 %
Second Quarter 2023	4.00
Third Quarter 2023	3.90
Fourth Quarter 2023	3.80
2023 Consensus	3.80
	<u>3.88 %</u>

- (4) The projection of the 2024 risk-free rate is illustrated below:

2024 Consensus	<u>3.80 %</u>
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- (5) The projection of the 2025 risk-free rate is illustrated below:

2025 Consensus	<u>3.80 %</u>
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- (6) Average of Column 6 and Column 7.

Sources of Information:
Value Line Summary and Index
Blue Chip Financial Forecasts, June 1, 2022 and September 30, 2022
Kroll 2022 SBBJ® Yearbook
Bloomberg Professional Services

Carolina Water Service Inc. of North Carolina.
Basis of Selection of the Group of Non-Price Regulated Companies
Comparable in Total Risk to the Utility Proxy Group

The criteria for selection of the proxy group of twenty-seven non-price regulated companies was that the non-price regulated companies be domestic and reported in Value Line Investment Survey (Standard Edition).

The Non-Price Regulated Proxy Group were then selected based on the unadjusted beta range of 0.49 – 0.77 and residual standard error of the regression range of 2.8333 – 3.3793 of the Utility Proxy Group.

These ranges are based upon plus or minus two standard deviations of the unadjusted beta and standard error of the regression. Plus or minus two standard deviations captures 95.50% of the distribution of unadjusted betas and residual standard errors of the regression.

The standard deviation of the Utility Proxy Group's residual standard error of the regression is 0.1365. The standard deviation of the standard error of the regression is calculated as follows:

$$\text{Standard Deviation of the Std. Err. of the Regr.} = \frac{\text{Standard Error of the Regression}}{\sqrt{2N}}$$

where: N = number of observations. Since Value Line betas are derived from weekly price change observations over a period of five years, N = 259

$$\text{Thus, } 0.1365 = \frac{3.1063}{\sqrt{518}} = \frac{3.1063}{22.7596}$$

Source of Information: Value Line, Inc., September 2022
Value Line Investment Survey (Standard Edition)

Carolina Water Service Inc. of North Carolina
Basis of Selection of Comparable Risk
Domestic Non-Price Regulated Companies

	[1]	[2]	[3]	[4]
	Value Line Adjusted Beta	Unadjusted Beta	Residual Standard Error of the Regression	Standard Deviation of Beta
<u>Proxy Group of Six Water Companies</u>				
American States Water Company	0.65	0.44	2.6059	0.0604
American Water Works Company, Inc.	0.90	0.78	3.3488	0.0776
California Water Service Group	0.70	0.48	3.1091	0.0721
Essential Utilities Inc.	0.95	0.91	2.7564	0.0639
Middlesex Water Company	0.70	0.51	3.4761	0.0806
SJW Group	0.80	0.65	3.3417	0.0775
Average	<u>0.78</u>	<u>0.63</u>	<u>3.1063</u>	<u>0.0720</u>
Beta Range (+/- 2 std. Devs. of Beta)	0.49	0.77		
2 std. Devs. of Beta	0.14			
Residual Std. Err. Range (+/- 2 std. Devs. of the Residual Std. Err.)	2.8333	3.3793		
Std. dev. of the Res. Std. Err.	0.1365			
2 std. devs. of the Res. Std. Err.	0.2730			

Source of Information: Valueline Proprietary Database, September 2022

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Carolina Water Service Inc. of North Carolina
Proxy Group of Non-Price Regulated Companies
Comparable in Total Risk to the
Proxy Group of Six Water Companies

	[1]	[2]	[3]	[4]
Proxy Group of Twenty-Seven Non-Price Regulated Companies	Value Line Adjusted Beta	Unadjusted Beta	Residual Standard Error of the Regression	Standard Deviation of Beta
Balchem Corp.	0.75	0.56	3.3474	0.0776
Becton, Dickinson	0.75	0.59	2.9969	0.0695
Black Knight, Inc.	0.75	0.56	3.1415	0.0728
Booz Allen Hamilton	0.85	0.76	3.1644	0.0733
Bristol-Myers Squibb	0.85	0.70	2.9185	0.0676
C.H. Robinson	0.70	0.54	3.3437	0.0775
Chemed Corp.	0.80	0.66	2.8403	0.0658
CSG Systems Int'l	0.75	0.56	2.8967	0.0671
CSW Industrials	0.85	0.76	3.0218	0.0700
Heartland Express	0.70	0.51	3.0304	0.0702
Henry (Jack) & Assoc	0.85	0.70	2.9759	0.0690
Lilly (Eli)	0.80	0.63	3.3732	0.0782
McCormick & Co.	0.75	0.62	3.0694	0.0711
Merck & Co.	0.80	0.63	2.9122	0.0675
Monster Beverage	0.85	0.76	2.9657	0.0687
NewMarket Corp.	0.75	0.59	2.9165	0.0676
Northrop Grumman	0.80	0.67	3.3239	0.0770
Oracle Corp.	0.80	0.67	2.8812	0.0668
Pfizer, Inc.	0.80	0.69	2.9056	0.0673
Progressive Corp.	0.75	0.60	3.0605	0.0709
Quest Diagnostics	0.80	0.62	3.2991	0.0765
RLI Corp.	0.75	0.62	2.9185	0.0676
Rollins, Inc.	0.85	0.71	3.2681	0.0758
Selective Ins. Group	0.85	0.76	3.0002	0.0695
Watsco, Inc.	0.85	0.73	2.8872	0.0669
Werner Enterprises	0.75	0.56	3.3343	0.0773
Western Union	0.80	0.68	3.0050	0.0697
Average	0.79	0.65	3.0666	0.0711
Proxy Group of Six Water Companies	0.78	0.63	3.1063	0.0720

Source of Information:

Valueline Proprietary Database, September 2022

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Carolina Water Service Inc. of North Carolina
Summary of Cost of Equity Models Applied to
Proxy Group of Twenty-Seven Non-Price Regulated Companies
Comparable in Total Risk to the
Proxy Group of Six Water Companies

Principal Methods	Results using Current Interest Rates	Results using Projected 2023 Interest Rates	Results using Projected 2024 Interest Rates	Results using Projected 2025 Interest Rates
Discounted Cash Flow Model (DCF) (1)	11.19 %	11.19 %	11.19 %	11.19 %
Risk Premium Model (RPM) (2)	12.52	12.99	12.73	12.68
Capital Asset Pricing Model (CAPM) (3)	11.79	12.07	12.04	12.04
Mean	11.83 %	12.08 %	11.99 %	11.97 %
Median	11.79 %	12.07 %	12.04 %	12.04 %
Average of Mean and Median	11.81 %	12.08 %	12.02 %	12.01 %

Notes:

- (1) From page 35 of this Schedule.
- (2) From page 36 of this Schedule.
- (3) From pages 39 through 42 of this Schedule.

Carolina Water Service Inc. of North Carolina
DCF Results for the Proxy Group of Non-Price-Regulated Companies Comparable in Total Risk to the
Proxy Group of Six Water Companies

	[1]	[2]	[3]	[4]	[6]	[7]	[8]
Proxy Group of Twenty-Seven Non-Price Regulated Companies	Average Dividend Yield	Value Line Projected Five Year Growth in EPS	Zack's Five Year Projected Growth Rate in EPS	Yahoo! Finance Projected Five Year Growth in EPS	Average Projected Five Year Growth Rate in EPS	Adjusted Dividend Yield	Indicated Common Equity Cost Rate (1)
Balchem Corp.	0.49 %	14.50 %	NA %	24.00 %	19.25 %	0.54 %	19.79 %
Becton, Dickinson	1.41	4.50	7.70	4.80	5.67	1.45	7.12
Black Knight, Inc.	-	10.50	10.20	10.15	10.28	-	NA
Booz Allen Hamilton	1.80	7.00	7.50	7.50	7.33	1.87	9.20
Bristol-Myers Squibb	3.02	NA	6.30	4.44	5.37	3.10	8.47
C.H. Robinson	2.05	8.50	9.00	6.00	7.83	2.13	9.96
Chemd Corp.	0.32	7.00	7.10	7.10	7.07	0.33	7.40
CSG Systems Int'l	1.85	12.00	NA	(5.00)	12.00	1.96	13.96
CSW Industrials	0.54	11.50	NA	12.00	11.75	0.57	12.32
Heartland Express	0.53	8.50	NA	13.30	10.90	0.56	11.46
Henry (Jack) & Assoc	1.00	9.00	9.00	14.00	10.67	1.05	11.72
Lilly (Eli)	1.24	11.50	19.50	18.13	16.38	1.34	17.72
McCormick & Co.	1.79	5.00	5.30	5.10	5.13	1.84	6.97
Merck & Co.	3.12	8.00	10.20	10.80	9.67	3.27	12.94
Monster Beverage	-	10.50	10.30	14.65	11.82	-	NA
NewMarket Corp.	2.80	(1.50)	NA	7.70	7.70	2.91	10.61
Northrop Grumman	1.44	6.50	2.20	3.00	3.90	1.47	5.37
Oracle Corp.	1.77	9.00	8.00	10.13	9.04	1.85	10.89
Pfizer, Inc.	3.41	6.50	12.50	NA	9.50	3.57	13.07
Progressive Corp.	0.33	6.50	18.70	25.80	17.00	0.36	17.36
Quest Diagnostics	2.03	3.50	NA	(14.72)	3.50	2.07	5.57
RLI Corp.	0.94	12.00	NA	9.80	10.90	0.99	11.89
Rollins, Inc.	1.11	10.50	NA	8.20	9.35	1.16	10.51
Selective Ins. Group	1.37	9.50	5.70	13.40	9.53	1.44	10.97
Watco, Inc.	3.21	11.50	NA	15.00	13.25	3.42	16.67
Werner Enterprises	1.28	9.00	5.80	7.30	7.37	1.33	8.70
Western Union	6.20	8.00	NA	(2.74)	8.00	6.45	14.45
					Mean		
					Median		
					Average of Mean and Median		

NA= Not Available

NMF= Not Meaningful Figure

Notes: (1) The application of the DCF model to the domestic non-price regulated comparable risk companies is identical to the application of the DCF to the utility proxy group. The dividend yield is derived by using the 60 day average price and the spot indicated dividend as of October 14, 2022. The dividend yield is then adjusted by 1/2 the average projected growth rate in EPS, which is calculated by averaging the 5 year projected growth in EPS provided by Value Line, www.zacks.com, and www.yahoo.com (excluding any negative growth rates) and then adding that growth rate to the adjusted dividend yield.

Source of Information:

Value Line Investment Survey
www.zacks.com Downloaded on 10/14/2022
www.yahoo.com Downloaded on 10/14/2022

Dec 06 2022

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Carolina Water Service Inc. of North Carolina
Indicated Common Equity Cost Rate
Through Use of a Risk Premium Model
Using an Adjusted Total Market Approach

<u>Line No.</u>		<u>Proxy Group of Twenty-Seven Non-Price Regulated Companies</u>	<u>Results using Projected 2023 Interest Rates</u>	<u>Results using Projected 2024 Interest Rates</u>	<u>Results using Projected 2025 Interest Rates</u>
1.	Prospective Yield on Baa2 Rated Corporate Bonds	-	6.32 % (1)	5.90 % (2)	5.80 % (3)
2.	Current Yield on Baa2 Rated Corporate Bonds (4)	5.35 %	-	-	-
3.	Adjustment to Reflect Bond rating Difference of Non-Price Regulated Companies (5)	<u>(0.17)</u>	<u>(0.17)</u>	<u>(0.17)</u>	<u>(0.17)</u>
4.	Adjusted Prospective Bond Yield	5.18	6.15	5.73	5.63
5.	Equity Risk Premium (6)	<u>7.34</u>	<u>6.84</u>	<u>7.00</u>	<u>7.05</u>
6.	Risk Premium Derived Common Equity Cost Rate	<u>12.52 %</u>	<u>12.99 %</u>	<u>12.73 %</u>	<u>12.68 %</u>

- (1) Average forecast of 2023 Baa2 corporate bonds based upon the consensus of nearly 50 economists reported in Blue Chip Financial Forecasts dated June 1, 2022 and September 30, 2022 (see pages 22 and 23 of this Schedule). The estimates are detailed below.

First Quarter 2023	6.40 %
Second Quarter 2023	6.50
Third Quarter 2023	6.40
Fourth Quarter 2023	6.30
2023 Consensus	<u>6.00</u>
Average	<u>6.32 %</u>

- (2) The projection of the 2024 Baa2 corporate bond is illustrated below:

2024 Consensus	<u>5.90 %</u>
----------------	---------------

- (3) The projection of the 2025 Baa2 corporate bond is illustrated below:

2025 Consensus	<u>5.80 %</u>
----------------	---------------

- (4) Three-month average Baa2 corporate bond yield ended September, 2022 as reported by Bloomberg Professional Services shown below:

Jul-22	5.21 %
Aug-22	5.15
Sep-22	<u>5.68</u>
Average	<u>5.35 %</u>

- (5) The average yield spread of Baa rated corporate bonds over A corporate bonds for the three months ending September 2022. To reflect the Baa1 average rating of the non-utility proxy group, the prospective yield on Baa corporate bonds must be adjusted by 1/3 of the spread between A and Baa corporate bond yields as shown below:

	<u>A Corp. Bond Yield</u>	<u>Baa Corp. Bond Yield</u>	<u>Spread</u>
Sep-22	5.16 %	5.68 %	0.52 %
Aug-22	4.65	5.15	0.50
Jul-22	4.67	5.21	<u>0.54</u>
		Average yield spread	<u>0.52</u>
		1/3 of spread	<u>0.17</u>

- (6) From page 38 of this Schedule.

Carolina Water Service Inc. of North Carolina
Comparison of Long-Term Issuer Ratings for the
Proxy Group of Twenty-Seven Non-Price Regulated Companies of Comparable risk to the
Proxy Group of Six Water Companies

Proxy Group of Twenty-Seven Non-Price Regulated Companies	Moody's Long-Term Issuer Rating October 2022		Standard & Poor's Long-Term Issuer Rating October 2022	
	Long-Term Issuer Rating	Numerical Weighting (1)	Long-Term Issuer Rating	Numerical Weighting (1)
Balchem Corp.	NA	--	NA	--
Becton, Dickinson	Baa2	9.0	BBB	9.0
Black Knight, Inc.	Ba3	13.0	BB	12.0
Booz Allen Hamilton	NA	--	NA	--
Bristol-Myers Squibb	A2	6.0	A+	5.0
C.H. Robinson	Baa2	9.0	BBB+	8.0
Chemed Corp.	WR	--	NR	--
CSG Systems Int'l	NA	--	BB+	11.0
CSW Industrials	NA	--	NA	--
Heartland Express	NA	--	NA	--
Henry (Jack) & Assoc	NA	--	NA	--
Lilly (Eli)	A2	6.0	A+	5.0
McCormick & Co.	Baa2	9.0	BBB	9.0
Merck & Co.	A1	5.0	A+	5.0
Monster Beverage	NA	--	NA	--
NewMarket Corp.	Baa2	9.0	BBB+	8.0
Northrop Grumman	Baa1	8.0	BBB+	8.0
Oracle Corp.	Baa2	9.0	BBB	9.0
Pfizer, Inc.	A2	6.0	A+	5.0
Progressive Corp.	A2	6.0	A	6.0
Quest Diagnostics	Baa2	9.0	BBB+	8.0
RLI Corp.	Baa2	9.0	BBB	9.0
Rollins, Inc.	NA	--	NA	--
Selective Ins. Group	Baa2	9.0	BBB	9.0
Watsco, Inc.	NA	--	NA	--
Werner Enterprises	NA	--	NA	--
Western Union	Baa2	9.0	BBB	9.0
Average	Baa1	8.2	BBB+	7.9

Notes:

(1) From page 18 of this Schedule.

Source of Information:

Bloomberg Professional Services

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Carolina Water Service Inc. of North Carolina
 Derivation of Equity Risk Premium Based on the Total Market Approach
 Using the Beta for
 Proxy Group of Twenty-Seven Non-Price Regulated Companies of Comparable risk to the
Proxy Group of Six Water Companies

Line No.	Equity Risk Premium Measure	Results using Current Interest Rates	Results using Projected 2023 Interest Rates	Results using Projected 2024 Interest Rates	Results using Projected 2025 Interest Rates
<u>Ibbotson-Based Equity Risk Premiums:</u>					
1.	Ibbotson Equity Risk Premium (1)	6.13 %	6.13 %	6.13 %	6.13 %
2.	Regression on Ibbotson Risk Premium Data (2)	8.11	6.97	7.32	7.45
3.	Ibbotson Equity Risk Premium based on PRPM (3)	10.12	10.12	10.12	10.12
4.	Equity Risk Premium Based on <u>Value Line</u> Summary and Index (4)	11.65	10.75	11.03	11.13
5	Equity Risk Premium Based on <u>Value Line</u> S&P 500 Companies (5)	12.28	11.38	11.66	11.76
6.	Equity Risk Premium Based on Bloomberg S&P 500 Companies (6)	8.16	7.26	7.54	7.64
7.	Conclusion of Equity Risk Premium	9.41 %	8.77 %	8.97 %	9.04 %
8.	Adjusted Beta (7)	0.78	0.78	0.78	0.78
9.	Forecasted Equity Risk Premium	7.34 %	6.84 %	7.00 %	7.05 %

Notes:

- (1) From note 1 of page 12 of Schedule DWD-4.
- (2) From note 2 of page 12 of Schedule DWD-4.
- (3) From note 3 of page 12 of Schedule DWD-4.
- (4) From note 4 of page 12 of Schedule DWD-4.
- (5) From note 5 of page 12 of Schedule DWD-4.
- (6) From note 6 of page 12 of Schedule DWD-4.
- (7) Average of mean and median beta from pages 39 to 42 of this Schedule.

Sources of Information:

Kroll 2022 SBB@ Yearbook
 Value Line Summary and Index
 Blue Chip Financial Forecasts, June 1, 2022 and September 30, 2022
 Bloomberg Professional Services

Carolina Water Service Inc. of North Carolina
Traditional CAPM and ECAPM Results for the Proxy Group of Non-Price-Regulated Companies Comparable in Total Risk to the
Proxy Group of Six Water Companies
Using Current Interest Rates

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Proxy Group of Twenty-Seven Non-Price Regulated Companies	Value Line Adjusted Beta	Bloomberg Beta	Average Beta	Market Risk Premium (1)	Risk-Free Rate (2)	Traditional CAPM Cost Rate	ECAPM Cost Rate	Indicated Common Equity Cost Rate (3)
Balchem Corp.	0.75	0.88	0.81	10.59 %	3.26 %	11.84 %	12.34 %	12.09 %
Becton, Dickinson	0.75	0.67	0.71	10.59	3.26	10.78	11.55	11.17
Black Knight, Inc.	0.75	0.65	0.70	10.59	3.26	10.68	11.47	11.07
Booz Allen Hamilton	0.85	0.81	0.83	10.59	3.26	12.05	12.50	12.28
Bristol-Myers Squibb	0.85	0.56	0.71	10.59	3.26	10.78	11.55	11.17
C.H. Robinson	0.70	0.87	0.79	10.59	3.26	11.63	12.19	11.91
Chemed Corp.	0.80	0.72	0.76	10.59	3.26	11.31	11.95	11.63
CSG Systems Int'l	0.70	0.80	0.75	10.59	3.26	11.21	11.87	11.54
CSW Industrials	0.85	0.90	0.87	10.59	3.26	12.48	12.82	12.65
Heartland Express	0.70	0.71	0.70	10.59	3.26	10.68	11.47	11.07
Henry (Jack) & Assoc	0.80	0.77	0.79	10.59	3.26	11.63	12.19	11.91
Lilly (Eli)	0.80	0.78	0.79	10.59	3.26	11.63	12.19	11.91
McCormick & Co.	0.75	0.73	0.74	10.59	3.26	11.10	11.79	11.44
Merck & Co.	0.80	0.52	0.66	10.59	3.26	10.25	11.15	10.70
Monster Beverage	0.85	0.82	0.83	10.59	3.26	12.05	12.50	12.28
NewMarket Corp.	0.75	0.62	0.69	10.59	3.26	10.57	11.39	10.98
Northrop Grumman	0.80	0.66	0.73	10.59	3.26	10.99	11.71	11.35
Oracle Corp.	0.80	0.94	0.87	10.59	3.26	12.48	12.82	12.65
Pfizer, Inc.	0.80	0.74	0.77	10.59	3.26	11.42	12.03	11.72
Progressive Corp.	0.75	0.72	0.74	10.59	3.26	11.10	11.79	11.44
Quest Diagnostics	0.80	0.63	0.72	10.59	3.26	10.89	11.63	11.26
RLI Corp.	0.75	0.81	0.78	10.59	3.26	11.52	12.11	11.81
Rollins, Inc.	0.85	0.86	0.86	10.59	3.26	12.37	12.74	12.56
Selective Ins. Group	0.85	0.76	0.80	10.59	3.26	11.73	12.26	12.00
Watco, Inc.	0.85	0.97	0.91	10.59	3.26	12.90	13.14	13.02
Werner Enterprises	0.75	0.83	0.79	10.59	3.26	11.63	12.19	11.91
Western Union	0.80	0.86	0.83	10.59	3.26	12.05	12.50	12.28
Mean			0.78			11.47 %	12.07 %	11.77 %
Median			0.78			11.52 %	12.11 %	11.81 %
Average of Mean and Median			0.78			11.50 %	12.09 %	11.79 %

Notes:

- (1) From page 30, note 1, of this Schedule.
(2) From page 30, note 2, of this Schedule.
(3) Average of CAPM and ECAPM cost rates.

Carolina Water Service Inc. of North Carolina
Traditional CAPM and ECAPM Results for the Proxy Group of Non-Price-Regulated Companies Comparable in Total Risk to the
Proxy Group of Six Water Companies
Using 2023 Projected Interest Rates

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Proxy Group of Twenty-Seven Non-Price Regulated Companies	Value Line Adjusted Beta	Bloomberg Beta	Average Beta	Market Risk Premium (1)	Risk-Free Rate (2)	Traditional CAPM Cost Rate	ECAPM Cost Rate	Indicated Common Equity Cost Rate (3)
Balchem Corp.	0.75	0.88	0.81	10.17 %	3.88 %	12.12 %	12.60 %	12.36 %
Becton, Dickinson	0.75	0.67	0.71	10.17	3.88	11.10	11.84	11.47
Black Knight, Inc.	0.75	0.65	0.70	10.17	3.88	11.00	11.76	11.38
Booz Allen Hamilton	0.85	0.81	0.83	10.17	3.88	12.32	12.75	12.54
Bristol-Myers Squibb	0.85	0.56	0.71	10.17	3.88	11.10	11.84	11.47
C.H. Robinson	0.70	0.87	0.79	10.17	3.88	11.91	12.45	12.18
Chemed Corp.	0.80	0.72	0.76	10.17	3.88	11.61	12.22	11.91
CSG Systems Int'l	0.70	0.80	0.75	10.17	3.88	11.51	12.14	11.83
CSW Industrials	0.85	0.90	0.87	10.17	3.88	12.73	13.06	12.89
Heartland Express	0.70	0.71	0.70	10.17	3.88	11.00	11.76	11.38
Henry (Jack) & Assoc	0.80	0.77	0.79	10.17	3.88	11.91	12.45	12.18
Lilly (Eli)	0.80	0.78	0.79	10.17	3.88	11.91	12.45	12.18
McCormick & Co.	0.75	0.73	0.74	10.17	3.88	11.41	12.07	11.74
Merck & Co.	0.80	0.52	0.66	10.17	3.88	10.59	11.46	11.02
Monster Beverage	0.85	0.82	0.83	10.17	3.88	12.32	12.75	12.54
NewMarket Corp.	0.75	0.62	0.69	10.17	3.88	10.90	11.69	11.29
Northrop Grumman	0.80	0.66	0.73	10.17	3.88	11.30	11.99	11.65
Oracle Corp.	0.80	0.94	0.87	10.17	3.88	12.73	13.06	12.89
Pfizer, Inc.	0.80	0.74	0.77	10.17	3.88	11.71	12.30	12.00
Progressive Corp.	0.75	0.72	0.74	10.17	3.88	11.41	12.07	11.74
Quest Diagnostics	0.80	0.63	0.72	10.17	3.88	11.20	11.91	11.56
RLI Corp.	0.75	0.81	0.78	10.17	3.88	11.81	12.37	12.09
Rollins, Inc.	0.85	0.86	0.86	10.17	3.88	12.63	12.98	12.80
Selective Ins. Group	0.85	0.76	0.80	10.17	3.88	12.02	12.52	12.27
Watco, Inc.	0.85	0.97	0.91	10.17	3.88	13.13	13.36	13.25
Werner Enterprises	0.75	0.83	0.79	10.17	3.88	11.91	12.45	12.18
Western Union	0.80	0.86	0.83	10.17	3.88	12.32	12.75	12.54
Mean			0.78			11.76 %	12.34 %	12.05 %
Median			0.78			11.81 %	12.37 %	12.09 %
Average of Mean and Median			0.78			11.79 %	12.36 %	12.07 %

Notes:

- (1) From page 30, note 1, of this Schedule.
(2) From page 30, note 2, of this Schedule.
(3) Average of CAPM and ECAPM cost rates.

Carolina Water Service Inc. of North Carolina
Traditional CAPM and ECAPM Results for the Proxy Group of Non-Price-Regulated Companies Comparable in Total Risk to the
Proxy Group of Six Water Companies
Using 2024 Projected Interest Rates

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Proxy Group of Twenty-Seven Non-Price Regulated Companies	Value Line Adjusted Beta	Bloomberg Beta	Average Beta	Market Risk Premium (1)	Risk-Free Rate (2)	Traditional CAPM Cost Rate	ECAPM Cost Rate	Indicated Common Equity Cost Rate (3)
Balchem Corp.	0.75	0.88	0.81	10.22 %	3.80 %	12.08 %	12.57 %	12.32 %
Becton, Dickinson	0.75	0.67	0.71	10.22	3.80	11.06	11.80	11.43
Black Knight, Inc.	0.75	0.65	0.70	10.22	3.80	10.96	11.72	11.34
Booz Allen Hamilton	0.85	0.81	0.83	10.22	3.80	12.29	12.72	12.50
Bristol-Myers Squibb	0.85	0.56	0.71	10.22	3.80	11.06	11.80	11.43
C.H. Robinson	0.70	0.87	0.79	10.22	3.80	11.88	12.41	12.15
Chemed Corp.	0.80	0.72	0.76	10.22	3.80	11.57	12.18	11.88
CSG Systems Int'l	0.70	0.80	0.75	10.22	3.80	11.47	12.11	11.79
CSW Industrials	0.85	0.90	0.87	10.22	3.80	12.70	13.03	12.86
Heartland Express	0.70	0.71	0.70	10.22	3.80	10.96	11.72	11.34
Henry (Jack) & Assoc	0.80	0.77	0.79	10.22	3.80	11.88	12.41	12.15
Lilly (Eli)	0.80	0.78	0.79	10.22	3.80	11.88	12.41	12.15
McCormick & Co.	0.75	0.73	0.74	10.22	3.80	11.37	12.03	11.70
Merck & Co.	0.80	0.52	0.66	10.22	3.80	10.55	11.42	10.98
Monster Beverage	0.85	0.82	0.83	10.22	3.80	12.29	12.72	12.50
NewMarket Corp.	0.75	0.62	0.69	10.22	3.80	10.85	11.65	11.25
Northrop Grumman	0.80	0.66	0.73	10.22	3.80	11.26	11.95	11.61
Oracle Corp.	0.80	0.94	0.87	10.22	3.80	12.70	13.03	12.86
Pfizer, Inc.	0.80	0.74	0.77	10.22	3.80	11.67	12.26	11.97
Progressive Corp.	0.75	0.72	0.74	10.22	3.80	11.37	12.03	11.70
Quest Diagnostics	0.80	0.63	0.72	10.22	3.80	11.16	11.88	11.52
RLI Corp.	0.75	0.81	0.78	10.22	3.80	11.78	12.34	12.06
Rollins, Inc.	0.85	0.86	0.86	10.22	3.80	12.59	12.95	12.77
Selective Ins. Group	0.85	0.76	0.80	10.22	3.80	11.98	12.49	12.24
Watco, Inc.	0.85	0.97	0.91	10.22	3.80	13.10	13.33	13.22
Werner Enterprises	0.75	0.83	0.79	10.22	3.80	11.88	12.41	12.15
Western Union	0.80	0.86	0.83	10.22	3.80	12.29	12.72	12.50
Mean			0.78			11.73 %	12.30 %	12.01 %
Median			0.78			11.78 %	12.34 %	12.06 %
Average of Mean and Median			0.78			11.76 %	12.32 %	12.04 %

Notes:

- (1) From page 30, note 1, of this Schedule.
(2) From page 30, note 2, of this Schedule.
(3) Average of CAPM and ECAPM cost rates.

Carolina Water Service Inc. of North Carolina
Traditional CAPM and ECAPM Results for the Proxy Group of Non-Price-Regulated Companies Comparable in Total Risk to the
Proxy Group of Six Water Companies
Using 2025 Projected Interest Rates

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Proxy Group of Twenty-Seven Non-Price Regulated Companies	Value Line Adjusted Beta	Bloomberg Beta	Average Beta	Market Risk Premium (1)	Risk-Free Rate (2)	Traditional CAPM Cost Rate	ECAPM Cost Rate	Indicated Common Equity Cost Rate (3)
Balchem Corp.	0.75	0.88	0.81	10.22 %	3.80 %	12.08 %	12.57 %	12.32 %
Becton, Dickinson	0.75	0.67	0.71	10.22	3.80	11.06	11.80	11.43
Black Knight, Inc.	0.75	0.65	0.70	10.22	3.80	10.96	11.72	11.34
Booz Allen Hamilton	0.85	0.81	0.83	10.22	3.80	12.29	12.72	12.50
Bristol-Myers Squibb	0.85	0.56	0.71	10.22	3.80	11.06	11.80	11.43
C.H. Robinson	0.70	0.87	0.79	10.22	3.80	11.88	12.41	12.15
Chemed Corp.	0.80	0.72	0.76	10.22	3.80	11.57	12.18	11.88
CSG Systems Int'l	0.70	0.80	0.75	10.22	3.80	11.47	12.11	11.79
CSW Industrials	0.85	0.90	0.87	10.22	3.80	12.70	13.03	12.86
Heartland Express	0.70	0.71	0.70	10.22	3.80	10.96	11.72	11.34
Henry (Jack) & Assoc	0.80	0.77	0.79	10.22	3.80	11.88	12.41	12.15
Lilly (Eli)	0.80	0.78	0.79	10.22	3.80	11.88	12.41	12.15
McCormick & Co.	0.75	0.73	0.74	10.22	3.80	11.37	12.03	11.70
Merck & Co.	0.80	0.52	0.66	10.22	3.80	10.55	11.42	10.98
Monster Beverage	0.85	0.82	0.83	10.22	3.80	12.29	12.72	12.50
NewMarket Corp.	0.75	0.62	0.69	10.22	3.80	10.85	11.65	11.25
Northrop Grumman	0.80	0.66	0.73	10.22	3.80	11.26	11.95	11.61
Oracle Corp.	0.80	0.94	0.87	10.22	3.80	12.70	13.03	12.86
Pfizer, Inc.	0.80	0.74	0.77	10.22	3.80	11.67	12.26	11.97
Progressive Corp.	0.75	0.72	0.74	10.22	3.80	11.37	12.03	11.70
Quest Diagnostics	0.80	0.63	0.72	10.22	3.80	11.16	11.88	11.52
RLI Corp.	0.75	0.81	0.78	10.22	3.80	11.78	12.34	12.06
Rollins, Inc.	0.85	0.86	0.86	10.22	3.80	12.59	12.95	12.77
Selective Ins. Group	0.85	0.76	0.80	10.22	3.80	11.98	12.49	12.24
Watco, Inc.	0.85	0.97	0.91	10.22	3.80	13.10	13.33	13.22
Werner Enterprises	0.75	0.83	0.79	10.22	3.80	11.88	12.41	12.15
Western Union	0.80	0.86	0.83	10.22	3.80	12.29	12.72	12.50
Mean			0.78			11.73 %	12.30 %	12.01 %
Median			0.78			11.78 %	12.34 %	12.06 %
Average of Mean and Median			0.78			11.76 %	12.32 %	12.04 %

Notes:

- (1) From page 30, note 1, of this Schedule.
(2) From page 30, note 2, of this Schedule.
(3) Average of CAPM and ECAPM cost rates.

Carolina Water Service Inc. of North Carolina
Derivation of Investment Risk Adjustment Based upon
Ibbotson Associates' Size Premia for the Decile Portfolios of the NYSE/AMEX/NASDAQ

	[1]	[2]	[3]	[4]
Line No.	Market Capitalization on October 14, 2022 (1) (millions)	Applicable Decile of the NYSE/AMEX/ NASDAQ (2)	Applicable Size Premium (3)	Spread from Applicable Size Premium (4)
1.	Carolina Water Service Inc. of North Carolina	10	4.80%	
2.	Proxy Group of Six Water Companies	11.0 x	1.18%	3.62%
		[A]	[C]	[D]
		[B]		

Notes:

- (1) From page 44 of this Schedule.
(2) Gleaned from Columns [B] and [C] on the bottom of this page. The appropriate decile (Column [A]) corresponds to the market capitalization of the proxy group, which is found in Column [1].
(3) Corresponding risk premium to the decile is provided in Column [D] on the bottom of this page.
(4) Line No. 1 Column [3] – Line No. 2 Column [3]. For example, the 3.62% in Column [4], Line No. 2 is derived as follows 3.62% = 4.8% - 1.18%.

Carolina Water Service Inc. of North Carolina
Market Capitalization of Carolina Water Service Inc. of North Carolina and the
Proxy Group of Six Water Companies

Company	Exchange	[1] Common Stock Shares Outstanding at Fiscal Year End 2021 (millions)	[2] Book Value per Share at Fiscal Year End 2021 (1)	[3] Total Common Equity at Fiscal Year End 2021 (millions)	[4] Closing Stock Market Price on October 14, 2022	[5] Market-to-Book Ratio on October 14, 2022 (2)	[6] Market Capitalization on October 14, 2022 (3) (millions)
Carolina Water Service Inc. of North Carolina		NA	NA	\$ 96,888 (4)	NA		
Based upon Proxy Group of Six Water Companies						283.9 (5)	\$ 275,065 (6)
Proxy Group of Six Water Companies							
American States Water Company	NYSE	36,936	\$ 18,571	\$ 685,947	\$ 84,880	457.1 %	\$ 3,135,152
American Water Works Company, Inc.	NYSE	181,611	40,185	7,298,000	128,440	319.6	23,326,128
California Water Service Group	NYSE	53,716	22,023	1,182,980	54,670	248.2	2,936,654
Essential Utilities Inc.	NYSE	252,868	20,503	5,184,450	39,910	194.7	10,091,947
Middlesex Water Company	NASDAQ	17,522	20,987	367,726	81,020	386.0	1,419,632
SJW Group	NYSE	30,181	34,277	1,034,519	62,200	181.5	1,877,280
Median		45,326	\$ 21,505	\$ 1,108,750	\$ 71,610	283.9 %	\$ 3,035,903

NA= Not Available

Notes: (1) Column 3 / Column 1.
(2) Column 4 / Column 2.
(3) Column 1 * Column 4.

(4) Combined book common equity from Company 2021 annual report filed with the Commission.
(5) The market-to-book ratio of Carolina Water Service Inc. of North Carolina on October 14, 2022 is assumed to be equal to the market-to-book ratio of Proxy Group of Six Water Companies on October 14, 2022 as appropriate.
(6) Column [3] multiplied by Column [5].

Source of Information: 2021 Annual Forms 10K
Bloomberg Financial Services

Dec 06 2022

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Carolina Water Service Inc of North Carolina
Mr. Hinton's DCF Analysis using only Projected Growth in EPS

DCF ANALYSIS

Company Name	Yield ¹	Value Line ²		Yahoo Forecast ³		Average Growth ²	Value Line Indicated		Yahoo Indicated		Average Indicated	
		EPS	5-Yr	5-Yr	EPS		ROE	%	ROE	%	ROE	%
		5.5	%	4.4	%		5.0	%	7.4	%	6.3	%	6.9	%
1 American States Water Company	1.9											
2 American Water Works Company, Inc.	1.8	3.0		8.3		5.7		4.8	⁴	10.1		7.5
3 California Water Service Group	1.7	6.5		11.7		9.1		8.2		13.4		10.8
4 Essential Utilities, Inc.	2.4	10.0		6.8		8.4		12.4		9.2		10.8
5 Middlesex Water Company	1.3	4.5		2.7		3.6		5.8		4.0	⁴	4.9
6 SJW Group	2.2	14.0		9.8		11.9		16.2		12.0		14.1

Average 1.9 % 7.3 % 7.3 % 7.3 %

Median 1.9 % 6.0 % 7.6 % 7.0 %

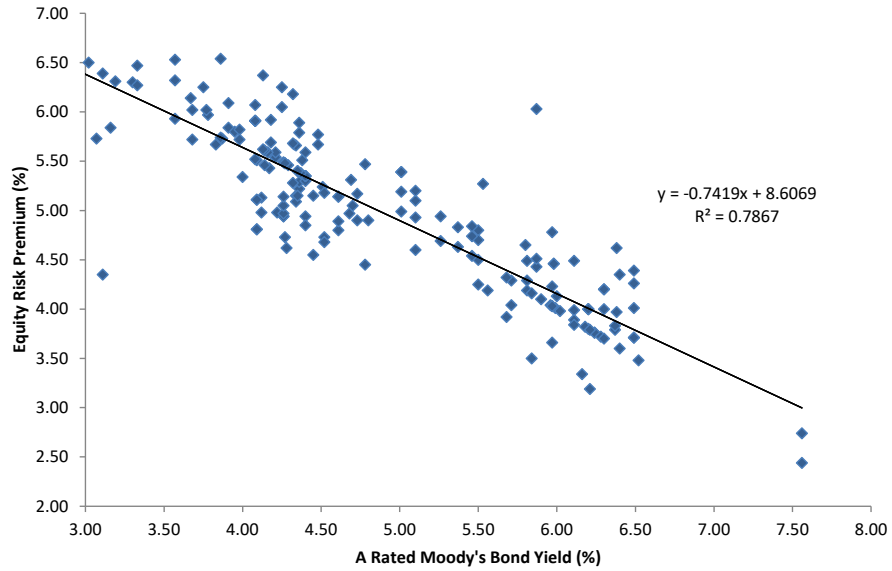
Average DCF Result 9.1 % 9.2 % 9.2 % 10.0 % 10.2 % 10.0 %

Median DCF Result 7.9 % 9.4 % 8.9 % 8.2 % 10.1 % 10.8 %

Sources:

- 1. From Hinton Exhibit 3.
- 2. From Hinton Exhibit 3.
- 3. From Hinton Exhibit 3.
- 4. Excluding the DCF model results for indicated ROEs less than the yield on A-rated utility bonds.

Carolina Water Service Inc of North Carolina
Prediction of Equity Risk Premiums Relative to
Moody's A Rated Utility Bond Yields



<u>Constant</u>	<u>Slope</u>	<u>Prospective A2 Rated Utility Bond (1)</u>	<u>Prospective Equity Risk Premium</u>	<u>Indicated ROE</u>
8.60686 %	-0.74187	5.88 %	4.24 %	10.12 %
<u>Constant</u>	<u>Slope</u>	<u>Current A2 Rated Utility Bond (2)</u>	<u>Current Equity Risk Premium</u>	<u>Indicated ROE</u>
8.60686 %	-0.74187	4.93 %	4.95 %	9.88 %

Carolina Water Service Inc of North Carolina
Prediction of Equity Risk Premiums Relative to
Moody's A Rated Utility Bond Yields

Notes:

- (1) The prospective A2 rated utility bond is the average forecast of Aaa rated corporate bonds per the consensus of nearly 50 economists reported in Blue Chip Financial Forecasts, adjusted to reflect the average yield spread of A2 rated public utility bonds over Aaa rated corporate bonds (see pages 3 and 4 of this Schedule). The prospective A2 rated utility bond is illustrated below:

Fourth Quarter 2022	5.00 %
First Quarter 2023	5.40
Second Quarter 2023	5.40
Third Quarter 2023	5.40
Fourth Quarter 2023	5.20
First Quarter 2024	5.10
2024-2028	4.90
2029-2033	5.00
Average:	5.18 %

	Aaa Rated Corporate Bond	A2 Rated Public Utility Bond
Sep-2022	4.57 %	5.26 %
Aug-2022	4.07	4.76
Jul-2022	4.06	4.78
Average	4.23 %	4.93 %

A2 Rated Public Utility Bonds Over Aaa Rated Corporate Bonds: 0.70 %

Adjusted Prospective Yield on A2 Rated Public Utility Bonds: 5.88 %

- (2) Three-month average on Moody's A-rated Utility bond yield ended September, 2022 as shown below:

Sep-2022	5.26 %
Aug-2022	4.76
Jul-2022	4.78
Average	4.93 %

Sources of Information:

Blue Chip Financial Forecasts September 30, 2022 and June 1, 2022
 Regulatory Research Associates
 Bloomberg Professional Services

Carolina Water Service Inc of North Carolina
Mr. Hinton's CEM Analysis

Company Name	CEM ANALYSIS												2025-2027	
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2025-2027	2025-2027
1 Amer. States Water	12.1	13.1	11.4	14.0	13.5	13.8	12.5	12.5	10.5	10.5	10.5	10.5	13.5	%
2 Amer. Water Works	9.0	7.9	9.7	10.1	11.0	17.3	10.5	10.5	7.5	9.0	10.0	10.0	10.5	%
3 California Water	7.4	9.7	9.0	8.1	10.5	8.6	7.5	9.0	8.5	8.5	8.5	8.5	10.0	%
4 Essential Util.	12.7	12.2	9.6	5.8	6.1	8.3	8.5	8.5	11.5	11.0	12.0	12.0	8.5	%
5 Middlesex Water	10.3	9.9	13.0	10.4	11.1	9.9	11.5	11.0	5.5	6.5	8.0	8.0	12.0	%
6 SJW Group	12.5	12.8	4.4	2.6	6.7	5.8	5.5	6.5	5.5	6.5	8.0	8.0	12.0	%
													Projected ROEs	
													Average	Median
													9.81	10.25
													Historical ROEs	
													Average	Median
													10.01	10.00

Sources:

1. Value Line Investment Survey, October 7, 2022.

Carolina Water Service Inc. of North Carolina
Portfolio Ranks by Size and Risk Premiums over CAPM Results
as Compiled by Kroll 2022 Valuation Handbook Guide to Cost of Capital

Portfolio Rank by Size	B-1		B-2		B-3		B-4		B-5		B-6		B-7		B-8	
	Market Val. of Equity (in \$millions)	RP	Average Book Val. (in \$millions)	RP	5-yr Net Income (in \$millions)	RP	Market Value of Invested Capital (in \$millions)	RP	Total Assets (in \$millions)	RP	5-yr EBITDA (in \$millions)	RP	Sales (in \$millions)	RP	Average Number of Employees	RP
1	\$327,375 and Up	-0.98%	\$48,552 and Up	1.18%	\$7,602 and Up	0.83%	\$371,743 and Up	-0.51%	\$125,752 and Up	0.86%	\$15,760 and Up	0.92%	\$93,399 and Up	1.11%	231,203 and Up	0.61%
2	\$77,985 - \$327,375	0.47%	\$17,943 - \$48,552	1.77%	\$2,533 - \$7,602	1.64%	\$100,161 - \$371,743	0.71%	\$56,658 - \$125,752	1.51%	\$5,692 - \$15,760	1.70%	\$31,788 - \$93,399	1.92%	88,575 - 231,203	1.54%
3	\$47,040 - \$77,985	0.94%	\$10,843 - \$17,943	2.09%	\$1,581 - \$2,533	1.94%	\$60,342 - \$100,161	1.18%	\$38,314 - \$56,658	1.74%	\$3,751 - \$5,692	2.00%	\$20,386 - \$31,788	2.26%	61,445 - 88,575	1.87%
4	\$32,207 - \$47,040	1.29%	\$7,886 - \$10,843	2.26%	\$1,090 - \$1,581	2.20%	\$44,265 - \$60,342	1.46%	\$25,760 - \$38,314	2.01%	\$2,798 - \$3,751	2.20%	\$15,225 - \$20,386	2.45%	47,209 - 61,445	2.08%
5	\$24,317 - \$32,207	1.56%	\$6,098 - \$7,886	2.41%	\$831 - \$1,090	2.37%	\$34,274 - \$44,265	1.66%	\$19,484 - \$25,760	2.23%	\$2,166 - \$2,798	2.37%	\$12,379 - \$15,225	2.60%	36,996 - 47,209	2.27%
6	\$19,482 - \$24,317	1.75%	\$4,901 - \$6,098	2.52%	\$661 - \$831	2.52%	\$26,180 - \$34,274	1.87%	\$15,916 - \$19,484	2.36%	\$1,713 - \$2,166	2.52%	\$10,462 - \$12,379	2.73%	29,306 - 36,996	2.46%
7	\$15,882 - \$19,482	1.93%	\$3,932 - \$4,901	2.63%	\$542 - \$661	2.64%	\$21,040 - \$26,180	2.08%	\$12,920 - \$15,916	2.48%	\$1,379 - \$1,713	2.66%	\$9,043 - \$10,462	2.81%	24,168 - 29,306	2.63%
8	\$13,166 - \$15,882	2.09%	\$3,242 - \$3,932	2.74%	\$449 - \$542	2.76%	\$17,707 - \$21,040	2.20%	\$10,563 - \$12,920	2.62%	\$1,145 - \$1,379	2.79%	\$7,737 - \$9,043	2.91%	20,191 - 24,168	2.75%
9	\$10,839 - \$13,166	2.24%	\$2,809 - \$3,242	2.83%	\$375 - \$449	2.87%	\$14,685 - \$17,707	2.35%	\$8,847 - \$10,563	2.74%	\$975 - \$1,145	2.89%	\$6,603 - \$7,737	3.01%	16,820 - 20,191	2.91%
10	\$8,851 - \$10,839	2.42%	\$2,508 - \$2,809	2.89%	\$312 - \$375	2.98%	\$12,329 - \$14,685	2.49%	\$7,598 - \$8,847	2.85%	\$835 - \$975	2.99%	\$5,667 - \$6,603	3.11%	14,606 - 16,820	3.03%
11	\$7,364 - \$8,851	2.58%	\$2,210 - \$2,508	2.94%	\$264 - \$312	3.09%	\$10,316 - \$12,329	2.63%	\$6,719 - \$7,598	2.93%	\$720 - \$835	3.08%	\$4,920 - \$5,667	3.20%	12,851 - 14,606	3.12%
12	\$6,201 - \$7,364	2.73%	\$1,921 - \$2,210	3.02%	\$226 - \$264	3.18%	\$8,617 - \$10,316	2.77%	\$5,936 - \$6,719	3.00%	\$614 - \$720	3.17%	\$4,227 - \$4,920	3.29%	11,248 - 12,851	3.23%
13	\$5,274 - \$6,201	2.87%	\$1,678 - \$1,921	3.09%	\$194 - \$226	3.27%	\$7,480 - \$8,617	2.91%	\$5,166 - \$5,936	3.09%	\$528 - \$614	3.28%	\$3,599 - \$4,227	3.39%	9,938 - 11,248	3.33%
14	\$4,547 - \$5,274	3.00%	\$1,465 - \$1,678	3.16%	\$166 - \$194	3.37%	\$6,632 - \$7,480	2.99%	\$4,364 - \$5,166	3.18%	\$466 - \$528	3.36%	\$3,138 - \$3,599	3.49%	8,586 - 9,938	3.42%
15	\$3,954 - \$4,547	3.11%	\$1,289 - \$1,465	3.23%	\$144 - \$166	3.46%	\$5,777 - \$6,632	3.10%	\$3,637 - \$4,364	3.31%	\$407 - \$466	3.44%	\$2,763 - \$3,138	3.56%	7,225 - 8,586	3.56%
16	\$3,376 - \$3,954	3.24%	\$1,139 - \$1,289	3.29%	\$125 - \$144	3.54%	\$4,986 - \$5,777	3.21%	\$3,145 - \$3,637	3.41%	\$355 - \$407	3.53%	\$2,400 - \$2,763	3.65%	6,168 - 7,225	3.69%
17	\$2,884 - \$3,376	3.38%	\$996 - \$1,139	3.35%	\$107 - \$125	3.63%	\$4,247 - \$4,986	3.33%	\$2,719 - \$3,145	3.49%	\$304 - \$355	3.61%	\$2,098 - \$2,400	3.73%	5,359 - 6,168	3.80%
18	\$2,471 - \$2,884	3.50%	\$873 - \$996	3.42%	\$90 - \$107	3.73%	\$3,613 - \$4,247	3.46%	\$2,322 - \$2,719	3.59%	\$248 - \$304	3.73%	\$1,813 - \$2,098	3.82%	4,582 - 5,359	3.91%
19	\$2,083 - \$2,471	3.64%	\$764 - \$873	3.49%	\$73 - \$90	3.84%	\$3,029 - \$3,613	3.58%	\$1,983 - \$2,322	3.69%	\$201 - \$248	3.87%	\$1,518 - \$1,813	3.92%	3,844 - 4,582	4.05%
20	\$1,702 - \$2,083	3.79%	\$653 - \$764	3.56%	\$58 - \$73	3.99%	\$2,486 - \$3,029	3.74%	\$1,668 - \$1,983	3.80%	\$166 - \$201	3.99%	\$1,243 - \$1,518	4.04%	3,198 - 3,844	4.18%
21	\$1,327 - \$1,702	3.99%	\$536 - \$653	3.65%	\$46 - \$58	4.11%	\$1,989 - \$2,486	3.89%	\$1,366 - \$1,668	3.91%	\$135 - \$166	4.11%	\$1,027 - \$1,243	4.17%	2,568 - 3,198	4.33%
22	\$993 - \$1,327	4.21%	\$424 - \$536	3.77%	\$36 - \$46	4.26%	\$1,487 - \$1,989	4.09%	\$1,044 - \$1,366	4.05%	\$105 - \$135	4.24%	\$827 - \$1,027	4.28%	1,966 - 2,568	4.52%
23	\$682 - \$993	4.48%	\$327 - \$424	3.89%	\$24 - \$36	4.42%	\$1,008 - \$1,487	4.36%	\$709 - \$1,044	4.26%	\$74 - \$105	4.44%	\$608 - \$827	4.45%	1,433 - 1,966	4.75%
24	\$348 - \$682	4.86%	\$197 - \$327	4.03%	\$12 - \$24	4.75%	\$511 - \$1,008	4.72%	\$369 - \$709	4.56%	\$40 - \$74	4.69%	\$335 - \$608	4.68%	793 - 1,433	5.01%
25	Up To \$348	5.84%	Up To \$197	4.52%	Up To \$12	5.47%	Up To \$511	5.63%	Up To \$369	5.22%	Up To \$40	5.33%	Up To \$335	5.35%	Up to 793	5.88%
Combined Proxy Group	\$ 9,957	10	\$ 2,626	10	\$ 205	13	\$ 13,643	10	\$ 8,493	10	\$ 531	13	\$ 1,302	20	\$ 2,117	22

Carolina Water Service, Inc. of North Carolina

Indicated Risk Premium - Water Proxy Group

Sources of Information:

Kroll Risk Premium Report Size Study Size Premia as of December 31, 2021.
S&P Financial
SEC Form 10-K
Company financial statements

Dec 06 2022

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Carolina Water Service Inc of North Carolina
Calculation of Range of ROEs needed
to Obtain a Single "A" Rating

	Capitalization Ratio (1) (a)	Embedded Cost (b)	Overall Cost Rate (2) (c)	Pre-Tax Cost of Capital (d)
<u>Company Proposed Rates</u>				
Long-term Debt	50.00%	4.64% (3)	2.32%	2.32%
Equity	50.00%	10.45% (3)	5.23%	6.78% (4)
Total	<u>100.00%</u>		<u>7.55%</u>	<u>9.10%</u>
			Pre-Tax Interest Coverage	3.9
<u>Public Staff Proposed Rates</u>				
Long-term Debt	50.00%	4.64% (1)	2.32%	2.32%
Equity	50.00%	9.45% (1)	4.73%	6.13% (4)
Total	<u>100.00%</u>		<u>7.05%</u>	<u>8.45%</u>
			Pre-Tax Interest Coverage	3.6
<u>Highest Rate Scenario</u>				
Long-term Debt	50.00%	4.64% (1)	2.32%	2.32%
Equity	50.00%	17.87%	8.94%	11.60% (4)
Total	<u>100.00%</u>		<u>11.26%</u>	<u>13.92%</u>
			Pre-Tax Interest Coverage	6.0
<u>Lowest Rate Scenario</u>				
Long-term Debt	50.00%	4.64% (1)	2.32%	2.32%
Equity	50.00%	7.15%	3.57%	4.64% (4)
Total	<u>100.00%</u>		<u>5.89%</u>	<u>6.96%</u>
			Pre-Tax Interest Coverage	3.0

Notes

- (1) Hinton Direct Testimony
(2) Column (a) x Column (b)
(3) Recommended ROE as shown on Direct Schedule DWD-1, page 1.
(4) Overall Equity Cost Rate x Tax Conversion Factor

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Dec 06 2022

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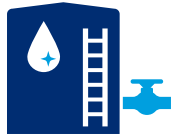
[Working at Corix](#)

[Diversity, Equity & Inclusion](#)

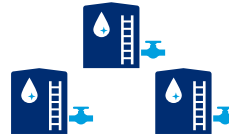
Contact

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[Developers](#)



Storage Capacity
10 MG
37,854 m³



Storage Tanks
115 Tanks

The Case for Regulated Water Companies

Private water and wastewater utility ownership and management is an increasingly viable solution for communities navigating the challenges of providing safe, reliable utility services.

Closing the Infrastructure Gap

Many community utilities are grappling with the complex issues of aging infrastructure, rising operational costs, and increasingly stringent regulatory and environmental requirements. In fact, the US Environmental Protection Agency estimates \$472.6 Billion in additional water infrastructure investment will be required over the next 20 years. Managing this scale of investment and risk requires specialized experience and expertise.



Water and Wastewater Utilities Are Regulated

Virtually all private utility systems are regulated by government mandate, and regulation touches every aspect of systems design, operation, and service delivery, including the setting of user rates.

Water and wastewater utilities are monopolies by nature, but are strictly regulated to ensure services meet jurisdictional standards and rates are fair and reasonable. Communities always have a voice in the operation of their utilities, whether public or private.

Learn more about the benefits of regulated water companies at the National Association of Water Companies (NAWC) [website](#).



The Corix Advantage

At Corix, we believe in building strong community relationships to deliver long-term, cost effective, and efficient essential utility services. Our growing list of water systems is a direct result of matching the right resources – human, financial, technological – to local requirements.

We're Local

As our name suggests, Corix is a *group* of companies, who leverage shared economies and efficiencies, but provide localized services through regional and state operations. Local operations are backed-up by regional and national teams, which provides operational redundancy and risk mitigation in emergencies, such as severe weather events.

So choosing Corix brings the full breadth of our North American resources, expertise, and on-the-ground know-how to your local utility.



Our People Are Everything

We take great pride in our greatest strength – our people. Our North American team numbers over 800 professionals working in all areas of utility infrastructure management. And we're proud to have one of North America's largest private workforces of qualified water and wastewater systems operators and technicians.

Our lean and agile management, coupled with locally focused operations, lets us take advantage of human resources and efficiencies simply unavailable to smaller utilities. Even our smallest systems have the support of industry leading professionals in areas such as finance, regulation, technology, engineering, safety, and environment.

Investing in our people never stops, and we ensure all our teams are continually trained in the latest operational, safety, and environmental standards and protocols.

Our **Purpose** — *"We help people enjoy a better life and communities thrive."* — inspires our people to care for the communities they serve. Our **Core Values** of **Safety**, **Integrity**, **Connection**, and **Excellence**, underpin our daily activities, and we apply them consistently across all operations.



Utilities is Our Only Business

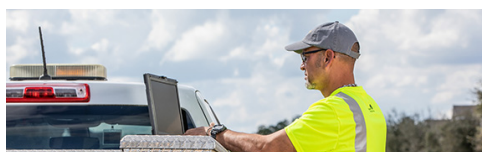
With over 20 years of experience in the utility industry, Corix knows community utilities.

Water and wastewater are at the core of our business, and unlike some of our competitors, we offer these services separately or combined. The ability to bundle services can produce significant operating efficiencies and economies of scale. As a result, most of our customers enjoy one-supplier water and wastewater services.

We also own and operate several systems that enjoy multi-utility services – typically water and wastewater together with one or more of gas, electricity, or geothermal. And we're always looking for new, innovative ways to provide essential utility services to the communities we serve.

We Invest for the Long-Term

A reliable, stable source of financing and capital is key to maintain utility services, implement major system improvements, or build new infrastructure. Corix has that financial expertise, with access to non-traditional sources of capital, and the ability to unlock the equity value of existing capital assets. We're able to do that because we're backed by the **British Columbia Investment Management Corp.** (BCI), one of North America's largest asset management companies.



We Embrace Technology

Corix applies industry-leading technologies to manage our systems, resources, and information. Our seamless integration of these platforms results in quality utility services for our customers.

Computerized Maintenance and Management System

Lowers costs and improves customer service

Geographic Information System

Helps keep systems running efficiently and reliably, and quickly respond to any issues

Asset Management

Manages maintenance and end-of-life replacement for highest value to customers

Supervisor Control and Data Acquisition

Realtime control and monitoring to lower costs, and enhance safety and security

Customer Care and Billing

Billing and call center support integrated with online customer services

Our command of these technologies ensures efficiency, safety, health and environmental compliance, and the provision of quality, essential utility services for customers at fair and reasonable rates.

We're Customer Experience Focused

Customers shouldn't have to worry about their utility services. Our approach to providing customer care services is to ensure customers stay happy, while providing communities with reliability, accountability, regulatory compliance, and risk management. We provide:

Customer billing, payment, and collections services

24/7 Call Center and online account services

Informational and communications services

Emergency response



We Care Deeply About Health, Safety, and the Environment

The protection and enhancement of the health, safety, and environment of the communities where we live and work is deeply engrained into our culture.

We apply technologies to meet and exceed the strictest health and environmental standards

We proactively test for and treat pathogens and contaminants

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With regulated water, wastewater, and energy operations throughout the United States and Canada, we're experts in all things regulatory. Corix companies have the experience, relationships, and resources needed to anticipate and address all regulatory requirements.



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2,502 km

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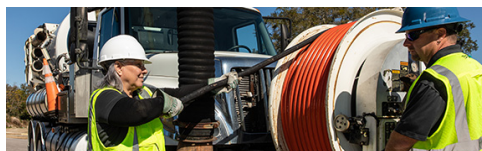
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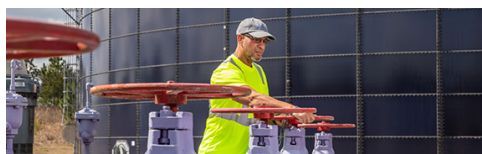
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Carolina Water Service
of North Carolina™

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Dec 03 2022

About Carolina Water Service of North Carolina

Carolina Water Service of North Carolina is a private water and wastewater utility provider. We take great pride in delivering safe and reliable utility services to residential and commercial customers in 38 counties across North Carolina.

But our commitment goes beyond providing essential utility services. We care about the health and wellbeing of our customers, employees, and our environment. And we actively contribute to the communities where we live and work. This commitment is expressed in our Company Purpose.

"We help people enjoy a better life and communities thrive."

You can learn more about us and the work we do in your community by following our [News \(/carolinawater/news\)](#) page.

Your Utility at a Glance

Carolina Water Service has been providing utility services for over 50 years, and all our activities are regulated by the [North Carolina Utilities Commission](#) (<https://www.ncuc.net/index.html>) and [North Carolina Department of Environmental Quality](#) (<https://deq.nc.gov/>). We employ utility professional who are a part of the community, and our head office is located in Charlotte.

Drinking Water Infrastructure



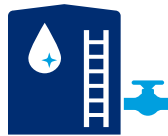
Production Capacity
11,850,480 MGD



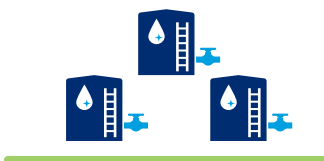
Distribution Mains
516 miles



Potable Wells
284 Wells

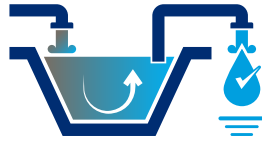


Storage Capacity
8,383,115 MG

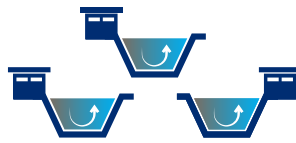


Storage Tanks
229 Tanks

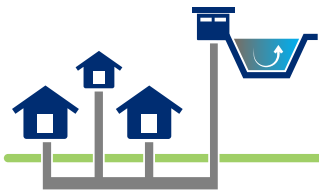
Wastewater Infrastructure



Treatment Capacity
6,858,694 MGD



Treatment Plants
24 Plants



Collection Mains
63.9 miles

Investing in Your Utility

We're committed (and obligated by regulators) to invest in older systems to bring them up to modern standards, and maintaining all systems in optimal operating condition through upgrade and replacement programs. To that end, Carolina Water Service of North Carolina has invested over \$20 million in capital improvements since its last rate case.

Even the smallest utility systems require significant investments. But unlike other public infrastructure – roads, bridges, airports, transit, etc. – most water and wastewater infrastructure is never seen, yet we rely on it 24/7. Learn more about [how utility systems work \(/carolinawater/water-smart/utility-systems\)](https://carolinawater.com/water-smart/utility-systems).

Our Service Areas

We provide utility services to these North Carolina communities.

- Abington
- Amber Acres
- Amber Acres North
- Amber Ridge
- Amherst
- Ashley Hills
- Bahia Bay
- Bear Paw
- Beechbrook
- Belvedere Plantation
- Bent Creek
- Blue Ridge Manor - Ashe Lake - Beaver Creek
- Blue Ridge Manor - Ashe Lake - Holiday Ln
- Blue Ridge Manor - Ashe Lake - Nikanor
- Bradfield Farms
- Brandywine Bay
- Buffalo Creek
- Carolina Forest
- Carolina Trace
- Chapel Hills
- College Park
- Connetsee Falls
- Country Club Annex
- Country Cross
- Country Hills - Lemmond Acres
- Crestview Estates
- Crystal Mountain
- Eagles Crossing
- Eastgate
- Eastwood Forest
- Elk River
- Fairfield Harbour
- Fairfield Mountain

- Fairfield Sapphire
- FFM Apple Valley
- Forest Hills

- Forestbrook
- Grandview
- Harbor House
- Harbour Point Farm
- Heather Glen
- Heathfield
- Hidden Hollow
- High Meadows
- High Vista
- Holly Acres
- Hound Ears
- Huntington Forest
- Jordan Woods
- Kings Grant
- Larkhaven
- Lindsey Point
- Linville Ridge
- LVS-Danby
- Mason Landing
- Meadow Glen
- Misty Mountain
- Monterrey
- Mountain Air
- Mt Mitchell
- Neuse Woods
- Oakdale Terrace
- Oakes Plantation
- Olde Lamp Place
- Olde Pointe
- Pinnacle Shores
- Powder Horn
- Quail Ridge
- Queens Harbor
- Ransdell Forest
- Riverbend Estates
- Riverpointe

- Riverwood
- Rutledge Landing North
- Saddlewood

- Sandy Trail
- Sherwood Forest
- Sherwood Park
- Silverton
- Ski Country
- Ski Mountain
- Stewarts Ridge
- Stone Hollow
- Suburban Heights
- Sugar Mountain
- Tanglewood Estates
- Tanglewood South
- The Ridges
- Treasure Cove
- Tuckahoe
- Watauga Vista
- Waterglyn
- Westwood Forest
- Whispering Pines
- White Oak Plantation
- Wilders Village
- Wildlife Bay
- Wildwood Green
- Willowbrook
- Winston Plantation
- Winston Pointe
- Wolf Laurel
- Wood Trace
- Woodhaven
- Woodrun
- Yorktown
- Zemosa Acres



Manage Your Utility Account Anytime Anywhere!

Manage Your Account, pay your bill, receive notifications and more ...

[Learn More & Register \(/carolinawater/account-billing/my-utility-connect\)](/carolinawater/account-billing/my-utility-connect)

[Account Login](#)



<https://apps.apple.com/ca/app/my-utility-connect/id1447552942>



https://play.google.com/store/apps/details?id=com.wsc.scm_mobile&hl=en&gl=US

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[Careers \(/carolinawater/careers\)](/carolinawater/careers)

Customer Service

(800) 525-7990 (M-F, 8 AM to 5 PM Eastern)

[Contact Us Online \(/my-utility-contact-us\)](/my-utility-contact-us)

Emergencies

(800) 525-7990 (24 Hours)



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<https://twitter.com/carolinawaternc>



<https://www.linkedin.com/in/carolina-water-north-carolina-b19384163>

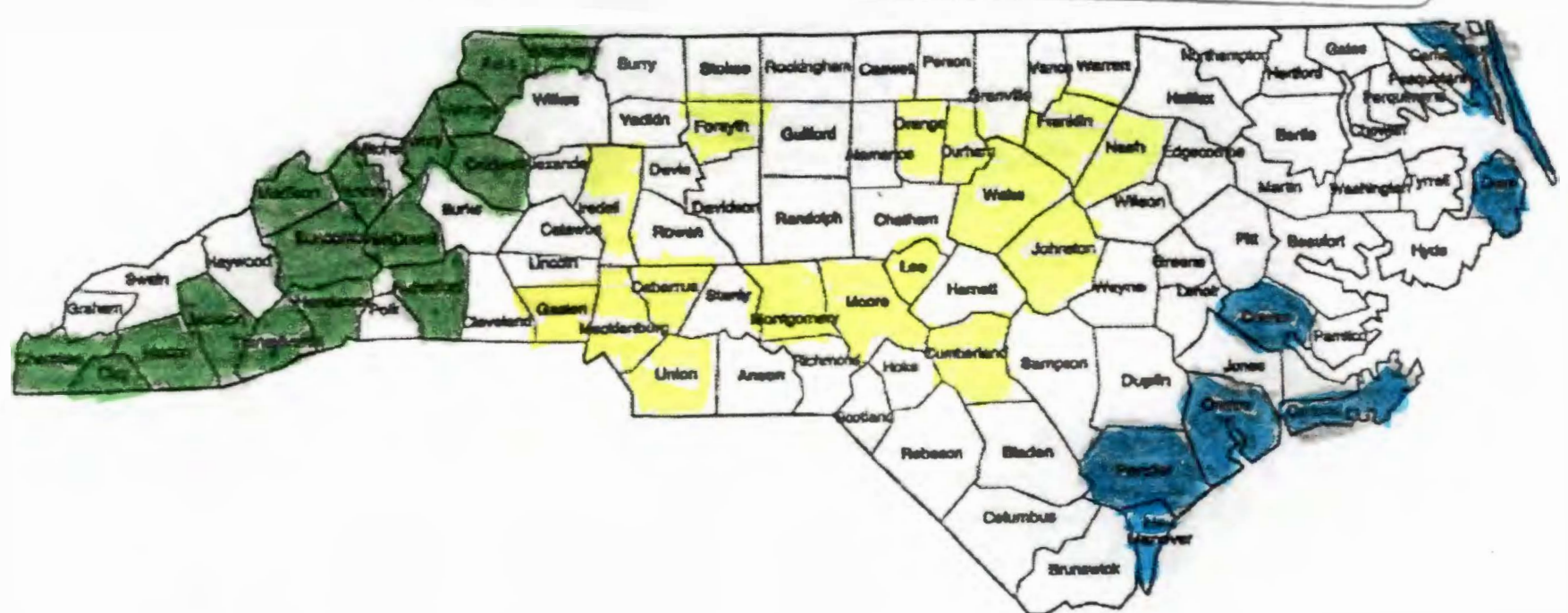
Carolina Water Service, Inc. of North Carolina
W-354, Sub 400
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Docket No. W-354, Sub 400
Appendix 8
Schedule G
Page 1 of 1

Counties in which Water and Sewer service is provided:

<u>County</u>	<u>Water</u>	<u>Sewer</u>
Alleghany	W	
Ashe	W	
Avery	W	S
Buncombe	W	S
Cabarrus	W	
Caldwell	W	
Carteret	W	S
Cherokee	W	S
Clay	W	S
Craven	W	S
Cumberland	W	
Currituck		S
Dare		S
Durham	W	
Forsyth	W	S
Franklin	W	
Gaston	W	S
Henderson	W	
Iredell	W	S
Jackson	W	S
Johnston	W	S
Lee	W	S
Macon	W	
Madison	W	S
McDowell	W	
Mecklenburg	W	S
Montgomery	W	
Moore	W	
Nash	W	
New Hanover	W	
Onslow		S
Pender	W	S
Rutherford	W	S
Transylvania	W	S
Union	W	S
Wake	W	S
Watauga	W	S
Yancey	W	S

Counties Served by CWSNC



- Mountain Counties
- Piedmont Counties
- Coastal Counties

**STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH**

DOCKET NO. W-354, SUB 360

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of
Application by Carolina Water Service, Inc., of) ORDER APPROVING JOINT
North Carolina, 4944 Parkway Plaza Boulevard,) PARTIAL SETTLEMENT
Suite 375, Charlotte, North Carolina 28217, for) AGREEMENT AND STIPULATION,
Authority to Adjust and Increase Rates for) GRANTING PARTIAL RATE
Water and Sewer Utility Service in All of its) INCREASE, AND REQUIRING
Service Areas in North Carolina, Except Corolla) CUSTOMER NOTICE
Light and Monteray Shores Service Area)

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

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

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

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

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

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

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

that these results are unreasonably high. Each of these results are higher than witness D'Ascendis' estimates of the cost of equity for his own Utility Proxy Group and deserve no weight, particularly with respect to the DCF. The Commission further concludes that given the difference in these results, the risk of the two groups is not equal and the Utility Proxy Group is more reliable as a proxy for the investment risk of common equity in CWSNC.

After determining that the indicated cost of equity from the DCF, CAPM, and risk premium methods applied to both of his proxy groups equals 10.80%, witness D'Ascendis then adjusted the indicated cost of equity upward by 0.40% to reflect CWSNC's smaller size compared to companies in his Utility Proxy Group. He testified that the size of the company is a significant element of business risk for which investors expect to be compensated through higher returns. Witness D'Ascendis calculated his size adjustment as described in his prefiled direct testimony and stated that even though a 4.61% upward size adjustment is indicated, he applies a 0.40% size premium to CWSNC's indicated common equity cost rate. Witness Hinton testified that he does not believe it is appropriate to add a risk premium to the cost of equity of CWSNC due to size for several reasons. First, from a regulatory policy perspective, witness Hinton stated that ratepayers should not be required to pay higher rates because they are located in the franchise area of a utility which is arbitrarily considered to be small. Further, if such adjustments were routinely allowed, an incentive would exist for large utilities to form subsidiaries or split-up subsidiaries to obtain higher returns. In addition, he noted that CWSNC operates in a franchise environment that insulates the Company from competition with procedures in place for rate adjustments for circumstances that impact its earnings. Finally, while witness Hinton stated that while there are studies that address how the small size of a company relates to higher returns, he is aware of only one study that focuses on the size of regulated utilities and risk and that study concluded that utility stocks do not exhibit a significant size premium. In rebuttal, witness D'Ascendis maintained that a small size adjustment was necessary based on the results of studies he cited and discussed and contended that the study concerning size premiums for utilities discussed by witness Hinton was flawed.

Based upon the foregoing and the entire record in this proceeding, the Commission concludes that a size adjustment of 0.40% is not warranted and should not be approved. The Commission determines there is insufficient evidence to authorize an adjustment to the approved rate of return on equity in this case. The record simply does not indicate the extent to which CWSNC's size alone justifies added risk. While a small water/wastewater utility might face greater risk than a publicly-traded peer group, because for example the service area was confined to a hurricane prone coastal geographic area, evidence of such factual predicates is absent from the record. The Commission notes that the witnesses also disagreed with respect to whether the studies discussed in the testimony concerning size and risk are reliable or even applicable to regulated utilities. The Commission concludes that the testimony regarding these studies is not convincing and does not support a size adjustment. In addition, while witness D'Ascendis calculates and testifies that a 4.61% upward size adjustment is indicated, he applies a size premium of 0.40% to

CWSNC's indicated cost of equity. The Commission thus concludes that the 0.40% adjustment is not supported by his testimony and is rather arbitrary.

Having determined that the appropriate rate of return on equity based upon the evidence in this proceeding is 9.75%, the Commission notes that there is considerable testimony concerning the authorized returns on equity for water utilities in other jurisdictions. While the Commission has relied upon the record in this proceeding and is certainly aware that returns in other jurisdictions can be influenced by many factors, such as different capital market conditions during different periods of time, settlements versus full litigation, the Commission concludes that the rate of return on equity trends and decisions by other regulatory authorities deserve some weight as (1) they provide a check or additional perspective on the case-specific circumstances, and (2) the Company must compete with other regulated utilities in the capital markets, meaning that a rate of return significantly lower than that approved for other utilities of comparable risk would undermine the Company's ability to raise necessary capital, while a rate of return significantly higher than other utilities of comparable risk would result in customers paying more than necessary. Public Staff D'Ascendis Cross-Examination Exhibit 3, the RRA Water Advisory publication showing approved return on equity decisions for water utilities across the country from January 2014 through June 30, 2018, is helpful in illustrating that the average rate of return on equity for water utilities is 9.59% in 2014, 9.76% in 2015, 9.71% in 2016, 9.56% in 2017, and in the only seven cases reported on for the first six months of 2018 the average is 9.41% with a range of 8.9% to 10.5%. This authorized return data is generally supportive of the Commission approved return on equity of 9.75% based upon the evidence in this proceeding. To the extent it is not, the record evidence justifies any such difference.

In its post-hearing brief, the AGO notes that the 10.80% to 11.20% range for rate of return on equity requested by CWSNC is substantially higher than the 9.6% return on equity stipulated to in the Sub 356 Proceeding. In this case, the AGO, in its role as consumer advocate, argues that the DCF model is relied upon by investors using widely available current market data and the DCF results produced by expert witnesses for CWSNC and the Public Staff show that a 9.2% return on equity is more than sufficient to attract the investment dollars needed for adequate service. However, unlike the AGO, the Commission cannot ignore the other evidence in this proceeding. When other such evidence is considered and weighed by the Commission as discussed hereinabove, the Commission finds that the reasonable and appropriate return on equity is 9.75%.

The Commission notes further that its approval of a rate of return on equity at the level of 9.75% or for that matter at any level, is not a guarantee to the Company that it will earn a rate of return on equity at that level. Rather, as North Carolina law requires, setting the rate of return on equity at this level merely affords CWSNC the opportunity to achieve such a return. The Commission finds, based upon all the evidence presented, that the rate of return on equity provided for herein will indeed afford the Company the opportunity to earn a reasonable and sufficient return for its shareholders while at the same time producing rates that are just and reasonable to its customers.

11. That, within 180 days of the date of this Order, CWSNC shall file a report with the Commission on the progress of the capital project intended to resolve the quality of service concern identified by Ms. Brown, one of the public witnesses appearing at the public hearing in Asheville, as is discussed in more detail in this Order. Such report shall state whether Ms. Brown has indicated to CWSNC that the final resolution of the issue is satisfactory;

12. That the two certificate of deposit bond sureties previously filed by Utilities, Inc. (as noted above) from BB&T for Amherst Subdivision in Wake County and for the Carolina Pines Service Area in Craven County, North Carolina shall be released to Utilities, Inc. The Chief Clerk shall file a copy of the letter to Utilities, Inc. from the Deputy Clerk releasing the bond sureties in Docket Nos. W-354, Sub 326, W-1152, Sub 8, W-1151, Sub 7, and this docket;

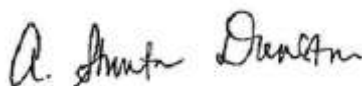
13. That the Chief Clerk shall establish Docket No. W-354, Sub 360A as the single docket to be used for all future WSIC/SSIC filings, orders, and reporting requirements. To that end, the Chief Clerk shall copy CWSNC's WSIC/SSIC pending application filed on January 31, 2019, in Docket No. W-354, Sub 356A and Sub 360 into Docket No. W-354, Sub 360A; and

14. That the Chief Clerk shall close Docket No. W-354, Subs 356A, 344A, and 336A.

ISSUED BY ORDER OF THE COMMISSION.

This the 21st day of February, 2019.

NORTH CAROLINA UTILITIES COMMISSION



A. Shonta Dunston, Deputy Clerk

Commissioner Daniel G. Clodfelter concurring in part and dissenting in part.

UTILITY STOCKS AND THE SIZE EFFECT: AN EMPIRICAL ANALYSIS

Annie Wong*

I. Introduction

The objective of this study is to examine whether the firm size effect exists in the public utility industry. Public utilities are regulated by federal, municipal, and state authorities. Every state has a public service commission with board and varying powers. Often their task is to estimate a fair rate of return to a utility's stockholders in order to determine the rates charged by the utility. The legal principles underlying rate regulation are that "the return to the equity owner should be commensurate with returns on investments in other enterprises having corresponding risks," and that the return to a utility should be sufficient to "attract capital and maintain credit worthiness." However, difficulties arise from the ambiguous interpretation of the legal definition of *fair and reasonable rate of return* to an equity owner.

Some finance researchers have suggested that the Capital Asset Pricing Model (CAPM) should be used in rate regulation because the CAPM beta can serve as a risk measure, thus making risk comparisons possible. This approach is consistent with the spirit of a Supreme Court ruling that equity owners sharing similar level of risk should be compensated by similar rate of return.

The empirical studies of Banz (1981) and Reinganum (1981) showed that small firms tend to earn higher returns than large firms after adjusting for beta. This phenomenon leads to the proposition that firm size is a proxy for omitted risk factors in determining stock returns. Barry and Brown (1984) and Brauer (1986) suggested that the omitted risk factor could be the differential information environment between small and large firms. Their argument is based on the fact that investors often have less publicly available information to assess the future cash flows of small firms than that of large

firms. Therefore, an additional risk premium should be included to determine the appropriate rate of return to shareholders of small firms.

The samples used in prior studies are dominated by industrial firms, no one has examined the size effect in public utilities. The objective of this study is to extend the empirical findings of the existing studies by investigating whether the size effect is also present in the utility industry. The findings of this study have important implications for investors, public utility firms, and state regulatory agencies. If the size effect does exist in the utility industry, this would suggest that the size factor should be considered when the CAPM is being used to determine the fair rate of return for public utilities in regulatory proceedings.

II. Information Environment of Public Utilities

In general, utilities differ from industrials in that utilities are heavily regulated and they follow similar accounting procedures. A public utility's financial reporting is mainly regulated by the Securities and Exchange Commission (SEC) and the Federal Energy Regulatory Commission (FERC). Under the Public Utility Holding Company Act of 1935, the SEC is empowered to regulate the holding company systems of electric and gas utilities. The Act requires registration of public utility holding companies with the SEC. Only under strict conditions would the purchase, sale or issuance of securities by these holding companies be permitted. The purpose of the Act is to keep the SEC and investors informed of the financial conditions of these firms. Moreover, the FERC is in charge of the interstate operations of electric and gas companies. It requires utilities to follow the accounting procedures set forth in its Uniform Systems of Accounts. In particular, electric and gas utilities must request their Certified Public Accountants to certify that certain schedules in the financial reports are in conformity with the Commission's accounting requirements. These detailed reports are submitted annually and are open to the public.

*Western Connecticut State University. The author thanks Philip Perry, Robert Hagerman, Eric Press, the anonymous referee, and Clay Singleton for their helpful comments.

The FERC requires public utilities to keep accurate records of revenues, operating costs, depreciation expenses, and investment in plant and equipment. Specific financial accounting standards for these purposes are also issued by the Financial Accounting Standards Board (FASB). Uniformity is required so that utilities are not subject to different accounting regulations in each of the states in which they operate. The ultimate objective is to achieve comparability in financial reporting so that factual matters are not hidden from the public view by accounting flexibility.

Other regulatory reports tend to provide additional financial information about utilities. For example, utilities are required to file the FERC Form No. 1 with the state commission. This form is designed for state commissions to collect financial and operational information about utilities, and serves as a source for statistical reports published by state commissions.

Unlike industrials, a utility's earnings are predetermined to a certain extent. Before allowed earnings requests are approved, a utility's performance is analyzed in depth by the state commission, interest groups, and other witnesses. This process leads to the disclosure of substantial amount of information.

III. Hypothesis and Objective

Due to the Act of 1935, the Uniform Systems of Accounts, the uniform disclosure requirements, and the predetermined earnings, all utilities are reasonably homogeneous with respect to the information available to the public. Barry and Brown (1984) and Brauer (1986) suggested that the difference of risk-adjusted returns between small and large firms is due to their differential information environment. Assuming that the differential information hypothesis is true, then uniformity of information availability among utility firms would suggest that the size effect should not be observed in the public utility industry. The objective of this paper is to provide a test of the size effect in public utilities.

IV. Methodology

1. Sample and Data

To test for the size effect, a sample of public utilities and a sample of industrials matched by equity value are formed so that their results can be compared. Companies in both samples are listed on the Center for Research in Security Prices (CRSP)

Daily and Monthly Returns files. The utility sample includes 152 electric and gas companies. For each utility in the sample, two industrial firms with similar firm size (one is slightly larger and the other is slightly smaller than the utility) are selected. Thus, the industrial sample includes 304 non-regulated firms.

The size variable is defined as the natural logarithm of market value of equity at the beginning of each year. Both the equally-weighted and value-weighted CRSP indices are employed as proxies for the market returns. Daily, weekly and monthly returns are used. The Fama-MacBeth (1973) procedure is utilized to examine the relation between risk-adjusted returns and firm size.

2. Research Design

All utilities in the sample are ranked according to the equity size at the beginning of the year, and the distribution is broken down into deciles. Decile one contains the stocks with the lowest market values while decile ten contains those with the highest market values. These portfolios are denoted by MV_1 , MV_2 , ..., and MV_{10} , respectively.

The combinations of the ten portfolios are updated annually. In the year after a portfolio is formed, equally-weighted portfolio returns are computed by combining the returns of the component stocks within the portfolio. The betas for each portfolio at year t , β_{pt} 's, are estimated by regressing the previous five years of portfolio returns on market returns:

$$\tilde{R}_{pt} = \alpha_p + \beta_{pt}\tilde{R}_{mt} + \tilde{U}_{pt} \quad (1)$$

where

R_{pt} = periodic return in year t on portfolio p

R_{mt} = periodic market return in year t

U_{pt} = disturbance term.

Banz (1981) applied both the ordinary and generalized least squares regressions to estimate β ; and concluded that the results are essentially identical (p.8). Since adjusting for heteroscedasticity does not necessarily lead to more efficient estimators, the ordinary least squares procedures are used in this study to estimate β in equation (1).

The following cross-sectional regression is then run for the portfolios to estimate γ_i , $i = 0, 1$, and 2:

$$R_{pt} = \gamma_0 + \gamma_1 \hat{\beta}_{pt} + \gamma_2 \hat{S}_{pt} + U_{pt} \quad (2)$$

where

$\hat{\beta}_{pt}$ = estimated beta for portfolio p at year t, t=1968, ..., 1987

\hat{S}_{pt} = mean of the logarithm of firm size in portfolio p at the beginning of year t

U_{pt} = disturbance term.

Depending on whether daily, weekly or monthly returns are used, a portfolio's average return changes periodically while its beta and size only change once a year. The γ_1 and γ_2 coefficients are estimated over the following four subperiods: 1968-72, 1973-77, 1978-82 and 1983-1987. If portfolio betas can fully account for the differences in returns, one would expect the average coefficient for the beta variable to be positive and for the size variable to be zero. A t-statistic will be used to test the hypothesis. The coefficients of a matched sample are also examined so that the results between industrial and utility firms can be compared.

V. Analysis of Results

1. Equity Value of the Utility Portfolios

The mean equity values of the ten size-based utility portfolios are reported in Table 1. Panels A and B present the average firm size of these portfolios at the beginning and end of the test period, 1968-1987. The first interesting observation from Table 1 is that the difference in magnitude between the smallest and the largest market value utility portfolios is tremendous. In Panel A, the average size of MV_1 is about \$31 million while that of MV_{10} is over \$1.4 billion. In Panel B, that is twenty years later, they are \$62 million and \$5.2 billion, respectively. Another interesting finding is that there is a substantial increase in average firm size from MV_9 to MV_{10} . Since these two findings are consistent over the entire test period, the average portfolio market values for interim years are not reported. These results are similar to the empirical evidence provided by Reinganum (1981).

The utility sample in this study contains 152 firms whereas Reinganum's sample contains 535 firms that are mainly industrial companies. Two conclusions may be drawn from the results of the Reinganum study and this one. First, utilities and industrials are similar in the sense that their market

values vary over a wide spectrum. Second, the fact that there is a huge jump in firm size from MV_9 to MV_{10} indicates that the distribution of firm size is positively skewed. To correct for the skewness problem, the natural logarithm of the mean equity value of each portfolio is calculated. This variable is then used in later regressions instead of the actual mean equity value.

2. Betas of the Utility and Industrial Samples

The betas based on monthly, weekly and daily returns are reported for the utility and industrial samples. For simplicity, they will be referred to as monthly, weekly, and daily betas. In all cases, five years of returns are used to estimate the systematic risk. The betas estimated over the 1963-67 time period are used to proxy for the betas in 1968, which is the beginning of the test period. By the same token, the betas obtained from the time period 1982-86 are used as proxies for the betas in 1987, which is the end of the test period.

The betas from using the equally-weighted and value-weighted indices are calculated in order to check whether the results are affected by the choice of market index. Since the results are similar, only those obtained from the equally-weighted index are reported and analyzed.

Table 2 reports the monthly, weekly and daily betas of the two samples at the beginning and end of the test period. Panel A shows the various betas of the industrial portfolios. Two conclusions may be drawn. First, in the 1960's, smaller market value portfolios tend to have relatively larger betas. This is consistent with the empirical findings by Banz (1981) and Reinganum (1981). Second, this trend seems to vanish in the 1980's, especially when weekly and daily returns are used.

The betas of the utility portfolios are presented in Panel B. The table shows that none of the utility betas are greater than 0.71. A comparison between Panels A and B reveals that utility portfolios are relatively less risky than industrial portfolios after controlling for firm size. The comparison also reveals that, unlike industrial stocks, betas of the utility portfolios are not related to the market values of equity.

The negative correlation between firm size and beta in the industrial sample may introduce a multicollinearity problem in estimating equation (2). Banz (p.11) had addressed this issue and concluded that the test results are not sensitive to the

multicollinearity problem. For the utility sample, this problem does not exist.

3. Tests on the Coefficients of Beta and Size

The beta and firm size are used to estimate γ_1 and γ_2 in equation (2). A t-statistic is used to test if the mean values of the gammas are significantly different from zero. The tests were performed for four 5-year periods which are reported in Table 3. The mean of the gammas and their t-statistic are presented in Panel A for the utilities and in Panel B for the industrial firms.

The empirical results for the utility sample are reported in Panel A of Table 3. When monthly returns are used, 60 regressions were run to obtain 60 pairs of gammas for each of the 5-year periods. When daily returns are used, over 1200 regressions were run for each period to obtain the gammas. The results are similar: in all of the time periods tested, none of the average coefficients for beta and size are significantly different from zero. When weekly returns are used, 260 pairs of gammas were obtained. The average coefficients for beta are not significant in any test period, and the average coefficients for size are not significant in three of the test periods. For the test period of 1978-82, the average coefficient for size is significantly negative at a 5% level.

The test results for the industrial sample are reported in Panel B of Table 3. When monthly returns are used, the average coefficient estimates for size and beta are significant and have the expected sign only in the 1983-87 test period. When weekly returns are used, only the size variable is significantly negative in the 1978-82 period. When daily returns are used, the coefficient estimates for betas and size are not significant at any conventional level.

According to the CAPM, beta is the sole determinant of stock returns. It is expected that the coefficient for beta is significantly positive. However, the empirical findings reported in this study and in Fama and French (1992) only provide weak support for beta in explaining stock returns. The empirical findings in this study also suggest that the size effect varies over time. It is not unusual to document the firm size effect at certain time periods but not at others. Banz (1981) found that the size effect is not stable over time with substantial differences in the magnitude of the coefficient of the size factor (p.9, Table 1). Brown, Kleidon and Marsh (1983) not only have shown that size effect is not constant over time but also have reported a reversal of the size anomaly for certain years.

The research design of this study allows us to keep the sample, test period, and methodology the same with the holding-period being the only variable. The size effect is documented for the industrial sample in one of the four test periods when monthly returns are used and in another when weekly returns are used. When daily returns are used, no size effect is observed. For the utility sample, the size effect is significant in only one test period when weekly returns are used. When monthly and daily returns are used, no size effect is found. Therefore, this study concludes that the size effect is not only time-period specific but also holding-period specific.

VI. Concluding Remarks

The fact that the two samples show different, though weak, results indicates that utility and industrial stocks do not share the same characteristics. First, given firm size, utility stocks are consistently less risky than industrial stocks. Second, industrial betas tend to decrease with firm size but utility betas do not. These findings may be attributed to the fact that all public utilities operate in an environment with regional monopolistic power and regulated financial structure. As a result, the business and financial risks are very similar among the utilities regardless of their sizes. Therefore, utility betas would not necessarily be expected to be related to firm size.

The objective of this study is to examine if the size effect exists in the utility industry. After controlling for equity values, there is some weak evidence that firm size is a missing factor from the CAPM for the industrial but not for the utility stocks. This implies that although the size phenomenon has been strongly documented for the industrials, the findings suggest that there is no need to adjust for the firm size in utility rate regulations.

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Table 1

Average Equity Size of the Utility Portfolios at the
Beginning and End of the Test Period
(Dollar figures in millions)

	A: Beginning (1968)	B: End (1987)
MV ₁	\$31	\$62
MV ₂	\$77	\$177
MV ₃	\$113	\$334
MV ₄	\$161	\$475
MV ₅	\$220	\$715
MV ₆	\$334	\$957
MV ₇	\$437	\$1,279
MV ₈	\$505	\$1,805
MV ₉	\$791	\$2,665
MV ₁₀	\$1,447	\$5,399

Table 2

Betas of the Two Samples at the Beginning and End of the Test Period

	<u>Monthly Betas</u>		<u>Weekly Betas</u>		<u>Daily Betas</u>	
	1963-67	1982-86	1963-67	1982-86	1963-67	1982-86
Panel A: Industrial Firms						
MV ₁	0.89	1.00	1.15	0.95	1.11	0.92
MV ₂	0.94	0.87	1.07	1.01	1.14	1.01
MV ₃	0.88	0.82	1.12	0.86	1.14	1.04
MV ₄	0.69	0.74	1.00	0.83	1.03	0.86
MV ₅	0.73	0.80	1.05	0.96	1.13	1.01
MV ₆	0.66	0.82	1.03	1.01	1.05	1.04
MV ₇	0.64	0.81	0.97	1.04	0.98	1.09
MV ₈	0.62	0.75	0.97	1.11	1.00	1.20
MV ₉	0.52	0.78	0.84	1.06	0.94	1.16
MV ₁₀	0.43	0.65	0.78	1.01	0.86	1.22
Panel B: Public Utilities						
MV ₁	0.30	0.37	0.31	0.43	0.30	0.40
MV ₂	0.28	0.38	0.37	0.47	0.36	0.44
MV ₃	0.22	0.42	0.33	0.42	0.31	0.49
MV ₄	0.27	0.35	0.36	0.52	0.34	0.54
MV ₅	0.25	0.45	0.37	0.61	0.35	0.62
MV ₆	0.25	0.41	0.39	0.54	0.40	0.65
MV ₇	0.20	0.35	0.34	0.54	0.37	0.63
MV ₈	0.17	0.38	0.34	0.65	0.33	0.68
MV ₉	0.19	0.34	0.35	0.60	0.34	0.71
MV ₁₀	0.18	0.29	0.38	0.59	0.39	0.71

UTILITY STOCKS AND THE SIZE EFFECT: AN EMPIRICAL ANALYSIS

Annie Wong*

I. Introduction

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II. Information Environment of Public Utilities

In general, utilities differ from industrials in that utilities are heavily regulated and they follow similar accounting procedures. A public utility's financial reporting is mainly regulated by the Securities and Exchange Commission (SEC) and the Federal Energy Regulatory Commission (FERC). Under the Public Utility Holding Company Act of 1935, the SEC is empowered to regulate the holding company systems of electric and gas utilities. The Act requires registration of public utility holding companies with the SEC. Only under strict conditions would the purchase, sale or issuance of securities by these holding companies be permitted. The purpose of the Act is to keep the SEC and investors informed of the financial conditions of these firms. Moreover, the FERC is in charge of the interstate operations of electric and gas companies. It requires utilities to follow the accounting procedures set forth in its Uniform Systems of Accounts. In particular, electric and gas utilities must request their Certified Public Accountants to certify that certain schedules in the financial reports are in conformity with the Commission's accounting requirements. These detailed reports are submitted annually and are open to the public.

*Western Connecticut State University. The author thanks Philip Perry, Robert Hagerman, Eric Press, the anonymous referee, and Clay Singleton for their helpful comments.

RATING ACTION COMMENTARY

Fitch Affirms PE and PSE; Outlooks Revised to Stable

Tue 01 Jun, 2021 - 12:47 PM ET

Fitch Ratings - New York - 01 Jun 2021: Fitch Ratings has affirmed Puget Energy Inc.'s (PE) Long-Term Issuer Default Rating (LT IDR) at 'BBB-' and Puget Sound Energy, Inc.'s (PSE) LT IDR at 'BBB+'. The Rating Outlook for both entities has been revised to Stable from Negative.

PE and PSE's Rating Outlooks improved as a result of the Senate Bill 5295, which was signed into law in May 2021. The legislation allows for multi-year rate plans, reducing regulatory lag. Certain rate adjustments and mitigating actions after the July 2020 rate order are expected to stabilize FFO leverage at around 5.5x in the next two years. FFO leverage could further improve to below 5.5x assuming Washington Utilities and Transportation Commission (WUTC) implements the legislation in a credit-supportive manner in the next rate case.

KEY RATING DRIVERS

New Legislation Reduces Regulatory Lag

On May 3, 2021, Washington Governor Jay Inslee signed into law the Senate Bill 5295 to transform utility regulation into multi-year rate plan and performance-based rate-making. Fitch believes that the legislation is largely positive, but it is subject to interpretation and implementation by the WUTC.

Under the law, beginning Jan. 1, 2022, utilities will file multi-year rate plans between two to four years in length, which would reduce regulatory lag and provide greater certainties on earnings and cash flow going forward. Rates after the first year can be based on forecast data. This is an improvement from the historic test year.

If the commission approves a multiyear rate plan with a duration of three or four years, utilities are bound by rates of the first and second year, but can file a new rate plan in year three and four. Utilities must also defer refund for earnings exceeding 0.5% above the authorized returns. The commission must, in approving a multiyear rate plan, determine a set of performance measures that will be used to assess a gas or electrical company operating under a multiyear rate plan. Fitch expects PSE to file a multi-year rate case in early 2022 with an order to follow 11-month later.

Favorable Rate Adjustments

PSE received an unfavorable rate order in July 2020. Since then, PSE has secured some positive rate adjustments. WUTC increased the revenue requirement for the rate order to \$27.8 million from \$2.2 million, primary due to errors related to EDIT and power costs. New rates took effect on Oct. 1, 2020.

Puget began to recover certain deferred power and gas costs totaling \$124 million in late 2020 and secured revenue decoupling revenue of \$36.4 million in 2021.

In April 2021, a settlement was reached for the 2020 power cost only rate case (PCORC). The settlement would result a revenue increase of \$65.3 million or 3.1%. Pending approval by the Washington Commission, the increase is expected to be effective June 2021.

Credit Metrics Expected to Improve

PSE's and PE's credit metrics in 2019 and 2020 have been negatively affected by mixed rate case outcomes, fuel cost deferral and cash recoveries and refunds due to tax reform. In the next two years, FFO leverage could decline to mid-5x. Assuming a reasonable rate case outcome, Fitch expects FFO leverage to improve to low 5x by 2023.

Parent-Subsidiary Linkage

Fitch applies a bottom-up approach in rating PSE and PE. PSE's ratings reflect its standalone credit profile, as well as its linkage with PE, while PE's ratings reflect a

consolidated credit profile. Fitch typically limits PSE's IDR to a maximum of two notches above PE's IDR. Currently, the notching differential is two notches.

Fitch generally considers PSE to be stronger than PE due to its lower leverage and lower operating risks as a regulated utility. A high level of parent-only debt (approximately 30%) results in weaker credit metrics at PE. While operational and strategic ties are strong, a prescribed regulatory capital structure provides reasonable protection, allowing PSE to be notched above PE.

The notching differential also reflects the ring-fencing measures in place as conditions to receive Washington commission's approval of PE's 2009 buyout by a consortium of investors. They include a non-consolidation opinion and a requirement that at least one of PSE's directors is an independent director. Without the unanimous vote of all directors, including the independent director, PSE will not consent to the institution of bankruptcy proceedings or the inclusion of PSE in any bankruptcy proceeding by PE or its affiliates.

PSE is prohibited from lending or pledging utility assets to PE or upstream owners without the permission of the commission and there will be no cross-subsidization by PSE customers for unregulated activities. PSE is prohibited from making upstream distributions if the common equity ratio is less than 44%. Dividends are also restricted if PSE's issuer rating is below investment grade. If PSE is downgraded below investment grade, while its EBITDA interest coverage is equal to or greater than 3.0x on an annualized basis, PSE is allowed to distribute dividends only up to an amount sufficient to service debt at PE, and to satisfy financial covenants in PE's credit facilities. Under this scenario, PE is prohibited from distributing to its equity owners.

PE's ability to pay upstream dividends is limited by the merger order issued by WUTC. Pursuant to the merger order, PE may not declare or make a distribution unless on such date PE's ratio of consolidated EBITDA to consolidated interest expense for the four most recently ended fiscal quarters prior to such date is equal to or greater than 2x.

DERIVATION SUMMARY

PE's peers include Cleco Corporate Holdings, LLC (Cleco; BBB-/Stable), IPALCO Enterprises, Inc. (BBB-/Stable) and DPL Inc. (BB/Negative), all of which are holding companies operating one primary utility. All four companies have sizable parent-only debt.

PE has approximately 30% parent-only debt, which is similar to IPALCO and lower than both Cleco's and DPL's 60%.

PSE operates an electric and gas utility with a larger customer base and higher gross revenue than Cleco Power LLC (BBB/Stable), Dayton Power & Light Company (BBB-/Negative) and Indianapolis Power & Light Co. (BBB+/Stable). However, PSE's service territory is less favorable than its peers, as it is subject to restrictive regulation and progressive energy goals in Washington, a primary credit concern.

PE's credit metrics weakened in recent years due to capex, mixed rate case results, fuel cost deferrals and tax reform. PE's FFO leverage is likely to hover around 5.5x in the next two years, modestly stronger than that of Cleco and DPL but weaker than IPALCO. Similar to Cleco Power, DP&L and IPL, PSE's standalone credit metrics remain consistent with its current rating, but it is upward-restricted by PE's ownership.

KEY ASSUMPTIONS

- \$3.1 billion capex from 2021 to 2023;
- PCORC implemented per settlement in April 2021;
- Certain assumptions were made regarding future rate cases;
- Certain management mitigation actions were assumed.

RATING SENSITIVITIES

PE

Factors that could, individually or collectively, lead to positive rating action/upgrade:

- Given the uncertainty of implementing a multi-year rate plan, an upgrade is unlikely in the near to intermediate term. Nevertheless, if PE's FFO leverage declines to below 4.2x, and/or there is a track record of constructive rate case proceedings, PE could be upgraded.

Factors that could, individually or collectively, lead to negative rating action/downgrade:

--PE will be downgraded if the 2022 rate case is unfavorable, causing FFO leverage to exceed 5.5x on a sustained basis;

--A downgrade at PSE could lead to the same at PE.

PSE

Factors that could, individually or collectively, lead to positive rating action/upgrade:

--Given the uncertainty of implementing a multi-year rate plan, an upgrade is unlikely in the near to intermediate term. Nevertheless, if PE is upgraded, PSE could be upgraded.

Factors that could, individually or collectively, lead to negative rating action/downgrade:

--A downgrade at PE could lead to a downgrade at PSE;

--FFO leverage sustained above 4.8x.

BEST/WORST CASE RATING SCENARIO

International scale credit ratings of Non-Financial Corporate issuers have a best-case rating upgrade scenario (defined as the 99th percentile of rating transitions, measured in a positive direction) of three notches over a three-year rating horizon; and a worst-case rating downgrade scenario (defined as the 99th percentile of rating transitions, measured in a negative direction) of four notches over three years. The complete span of best- and worst-case scenario credit ratings for all rating categories ranges from 'AAA' to 'D'. Best- and worst-case scenario credit ratings are based on historical performance. For more information about the methodology used to determine sector-specific best- and worst-case scenario credit ratings, visit <https://www.fitchratings.com/site/re/10111579>.

ISSUER PROFILE

PE is an energy services holding company and substantially all of its operations are conducted through its regulated and integrated utility PSE. PSE provides electric and natural gas service principally in the Puget Sound region. PE also has a wholly-owned nonregulated subsidiary, named Puget LNG LLC, which owns, develops and finances the

non-regulated activity of a liquefied natural gas (LNG) facility at the Port of Tacoma, Washington.

REFERENCES FOR SUBSTANTIALLY MATERIAL SOURCE CITED AS KEY DRIVER OF RATING

The principal sources of information used in the analysis are described in the Applicable Criteria.

ESG CONSIDERATIONS

Unless otherwise disclosed in this section, the highest level of ESG credit relevance is a score of '3'. This means ESG issues are credit-neutral or have only a minimal credit impact on the entity, either due to their nature or the way in which they are being managed by the entity. For more information on Fitch's ESG Relevance Scores, visit www.fitchratings.com/esg.

RATING ACTIONS

ENTITY / DEBT ⚡	RATING ⚡			PRIOR ⚡
Puget Sound Energy, Inc.	LT IDR	BBB+ Rating Outlook Stable		BBB+ Rating Outlook Negative
	Affirmed			
	ST IDR	F2	Affirmed	F2
senior secured	LT	A	Affirmed	A
senior unsecured	ST	F2	Affirmed	F2

Puget Energy Inc.

LT IDR

BBB- Rating Outlook Stable

BBB- Rating

Outlook

Negative

Affirmed

senior secured

LT

BBB

Affirmed

BBB

[VIEW ADDITIONAL RATING DETAILS](#)

FITCH RATINGS ANALYSTS

Julie Jiang

Director

Primary Rating Analyst

+1 212 908 0708

Fitch Ratings, Inc.

33 Whitehall Street New York, NY 10004

Barbara Chapman, CFA

Senior Director

Secondary Rating Analyst

+1 646 582 4886

Shalini Mahajan, CFA

Managing Director

Committee Chairperson

+1 212 908 0351

MEDIA CONTACTS

Elizabeth Fogerty

New York

+1 212 908 0526

elizabeth.fogerty@thefitchgroup.com

Additional information is available on www.fitchratings.com

PARTICIPATION STATUS

The rated entity (and/or its agents) or, in the case of structured finance, one or more of the transaction parties participated in the rating process except that the following issuer(s), if any, did not participate in the rating process, or provide additional information, beyond the issuer's available public disclosure.

APPLICABLE CRITERIA

[Parent and Subsidiary Linkage Rating Criteria - Effective from 26 August 2020 to 1 December 2021 \(pub. 26 Aug 2020\)](#)

[Corporate Hybrids Treatment and Notching Criteria \(pub. 12 Nov 2020\)](#)

[Corporate Rating Criteria -- Effective from 21 December 2020 to 15 October 2021 \(pub. 21 Dec 2020\) \(including rating assumption sensitivity\)](#)

[Corporates Recovery Ratings and Instrument Ratings Criteria \(pub. 09 Apr 2021\) \(including rating assumption sensitivity\)](#)

[Sector Navigators - Addendum to the Corporate Rating Criteria - Effective from 30 April 2021 to 15 October 2021 \(pub. 30 Apr 2021\)](#)

APPLICABLE MODELS

Numbers in parentheses accompanying applicable model(s) contain hyperlinks to criteria providing description of model(s).

Corporate Monitoring & Forecasting Model (COMFORT Model), v7.9.0 ([1](#))

ADDITIONAL DISCLOSURES

[Dodd-Frank Rating Information Disclosure Form](#)

[Solicitation Status](#)

[Endorsement Policy](#)

ENDORSEMENT STATUS

Puget Energy Inc.

EU Endorsed, UK Endorsed

Puget Sound Energy, Inc.

EU Endorsed, UK Endorsed

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CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400

Change from 9.25% to 10.45% on ROE for Base Year and from 9.25% to 10.7% for Rate Years

CWSNC - Water					Revenue Requirement Change				Sum
	NOI Change								
	Base Year*	Rate Year 1	Rate Year 2	Rate Year 3	Base Year	Rate Year 1	Rate Year 2	Rate Year 3	
Amount Change	426,269	585,754	638,962	655,404	554,192	761,538	830,714	852,090	\$ 2,998,534.79
9.25%	4,934,072	5,611,119	6,120,811	6,278,316	6,414,784	7,295,012	7,957,662	8,162,434	
10.45%/10.7%	5,360,341	6,196,873	6,759,773	6,933,720	6,968,976	8,056,550	8,788,376	9,014,525	
CWSNC - Sewer					Revenue Requirement Change				
	NOI Change								
	Base Year*	Rate Year 1	Rate Year 2	Rate Year 3	Base Year	Rate Year 1	Rate Year 2	Rate Year 3	
Amount Change	400,992	592,329	614,227	735,555	521,329	770,087	798,556	956,295	\$ 3,046,266.63
9.25%	4,641,482	5,674,095	5,883,870	7,046,109	6,034,388	7,376,887	7,649,615	9,160,642	
10.45%/10.7%	5,042,474	6,266,424	6,498,097	7,781,664	6,555,717	8,146,974	8,448,172	10,116,936	
BF/FH/TC - Water					Revenue Requirement Change				
	NOI Change								
	Base Year*	Rate Year 1	Rate Year 2	Rate Year 3	Base Year	Rate Year 1	Rate Year 2	Rate Year 3	
Amount Change	21,582	42,726	49,459	49,468	28,059	55,548	64,302	64,313	\$ 212,221.71
9.25%	249,811	409,285	473,784	473,873	324,779	532,111	615,966	616,082	
10.45%/10.7%	271,393	452,011	523,243	523,341	352,838	587,659	680,268	680,395	
BF/FH - Sewer					Revenue Requirement Change				
	NOI Change								
	Base Year*	Rate Year 1	Rate Year 2	Rate Year 3	Base Year	Rate Year 1	Rate Year 2	Rate Year 3	
Amount Change	58,676	78,504	124,664	126,638	76,285	102,063	162,076	164,642	\$ 505,065.19
9.25%	679,167	752,009	1,194,192	1,213,100	882,985	977,686	1,552,568	1,577,150	
10.45%/10.7%	737,843	830,513	1,318,856	1,339,738	959,269	1,079,749	1,714,644	1,741,792	

* CWSNC proposed a 10.45% ROE for Base year and 10.7% for Rate Years.

TOTAL REVENUE REQUIREMENT CHANGE \$ 6,762,088.32

Docket No. W-354, Sub 400
Public Staff
D'Ascendis Proposed Cross Exhibit No. 9

Exhibit 7
Schedule DWD-5
Page 5 of 5

Carolina Water Service of North Carolina
Notes to Accompany the Application of the CAPM and ECAPM

Notes:

- (1) The market risk premium (MRP) is derived by using six different measures from three sources: Ibbotson, Value Line, and Bloomberg as illustrated below:

	Using Current Interest Rates	Using Projected 2023 Interest Rates	Using Projected 2024 Interest Rates	Using Projected 2025 Interest Rates
<u>Historical Data MRP Estimates:</u>				
<u>Measure 1: Ibbotson Arithmetic Mean MRP (1926-2021)</u>				
Arithmetic Mean Monthly Returns for Large Stocks 1926-2021:	12.37 %	12.37 %	12.37 %	12.37 %
Arithmetic Mean Income Returns on Long-Term Government Bonds:	5.02	5.02	5.02	5.02
MRP based on Ibbotson Historical Data:	7.35 %	7.35 %	7.35 %	7.35 %
<u>Measure 2: Application of a Regression Analysis to Ibbotson Historical Data (1926-2021)</u>	10.27 %	9.34 %	9.38 %	9.05 %
<u>Measure 3: Application of the PRPM to Ibbotson Historical Data: (January 1926 - April 2022)</u>	9.35 %	9.35 %	9.35 %	9.35 %
<u>Value Line MRP Estimates:</u>				
<u>Measure 4: Value Line Projected MRP (Thirteen weeks ending May 13, 2022)</u>				
Total projected return on the market 3-5 years hence*:	13.16 %	13.16 %	13.16 %	13.16 %
Projected Risk-Free Rate (see note 2):	2.49	3.33	3.30	3.60
MRP based on Value Line Summary & Index:	10.67 %	9.83 %	9.86 %	9.56 %
*Forecasted 3-5 year capital appreciation plus expected dividend yield				
<u>Measure 5: Value Line Projected Return on the Market based on the S&P 500</u>				
Total return on the Market based on the S&P 500:	16.42 %	16.42 %	16.42 %	16.42 %
Projected Risk-Free Rate (see note 2):	2.49	3.33	3.30	3.60
MRP based on Value Line data	13.93 %	13.09 %	13.12 %	12.82 %
<u>Measure 6: Bloomberg Projected MRP</u>				
Total return on the Market based on the S&P 500:	13.93 %	13.93 %	13.93 %	13.93 %
Projected Risk-Free Rate (see note 2):	2.49	3.33	3.30	3.60
MRP based on Bloomberg data	11.44 %	10.60 %	10.63 %	10.33 %
<u>Average of Value Line, Ibbotson, and Bloomberg MRP:</u>	10.50 %	9.93 %	9.95 %	9.74 %

B8 | Tuesday, November 22, 2022

MARKETS DIGEST

EQUITIES

Dow Jones Industrial Average

33700.28 ▼45.41, or 0.13%

High, low, open and close for each trading day of the past three months.

	Last	Year ago
Trailing P/E ratio	20.95	22.11
P/E estimate*	18.36	18.53
Dividend yield	2.01	1.91
All-time high	36799.65, 01/04/22	

S&P 500 Index

3949.94 ▼15.40, or 0.39%

High, low, open and close for each trading day of the past three months.

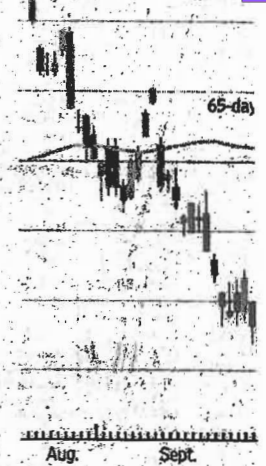
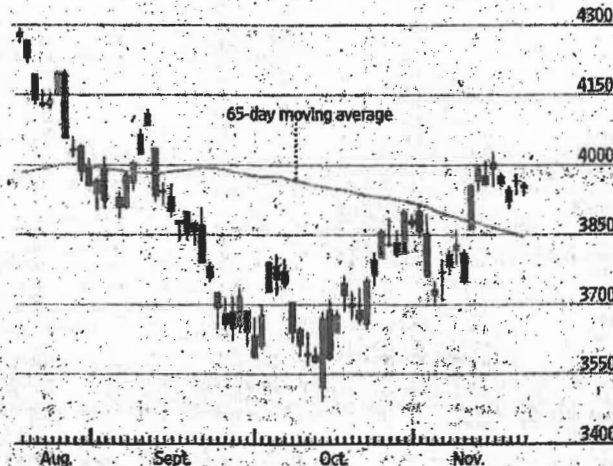
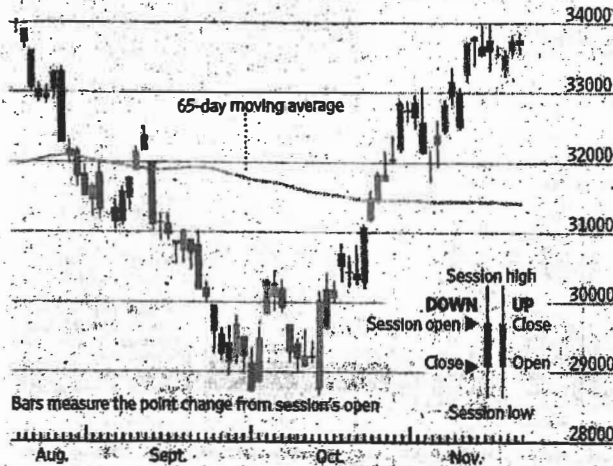
	Last	Year ago
Trailing P/E ratio*	19.22	28.90
P/E estimate*	17.75	22.43
Dividend yield*	1.68	1.28
All-time high	4796.56, 01/03/22	

Nasdaq Composite

11024.51 ▼121.55, or 1.1%

High, low, open and close for each trading day of the past three months.

Current divisor 015172752695384



Bars measure the point change from session's open

*Weekly P/E data based on as-reported earnings from Bionity Associates Inc. †Based on Nasdaq-100 Index

Major U.S. Stock-Market Indexes

	High	Low	Latest Close	Net chg	% chg	High	Low	% chg	YTD	3-yr. ann.
Dow Jones										
Industrial Average	33864.59	33559.18	33700.28	-45.41	-0.13	36799.65	28725.51	-5.4	-7.3	6.7
Transportation Avg	14325.50	14179.35	14295.40	40.69	0.29	16874.53	11999.40	-14.6	-13.2	10.2
Utility Average	949.45	938.32	945.37	6.04	0.64	1071.75	838.99	2.4	-3.6	2.4
Total Stock Market	39795.09	39500.75	39668.06	-179.39	-0.45	48929.18	36056.21	-17.3	-18.4	7.7
Barron's 400	961.19	948.97	958.31	-2.87	-0.30	1114.47	825.73	-14.4	-13.4	10.9
Nasdaq Stock Market										
Nasdaq Composite	11128.78	10999.75	11024.51	-121.55	-1.09	15871.26	10321.39	-30.3	-29.5	9.8
Nasdaq-100	11664.94	11524.44	11553.45	-123.57	-1.06	16567.50	10690.60	-29.3	-29.2	11.0
S&P										
500 Index	3962.00	3933.34	3949.94	-15.40	-0.39	4796.56	3577.03	-15.7	-17.1	8.4
MidCap 400	2510.17	2492.71	2504.48	-6.15	-0.24	2875.24	2200.75	-12.9	-11.9	8.1
SmallCap 600	1215.32	1206.30	1214.15	-3.99	-0.33	1433.01	1064.45	-15.3	-13.4	8.8
Other Indexes										
Russell 2000	1842.96	1828.99	1839.14	-10.59	-0.57	2331.46	1649.84	-21.1	-18.1	5.1
NYSE Composite	15309.77	15180.19	15278.26	-31.51	-0.21	17353.76	13472.18	-9.8	-11.0	4.5
Value Line	554.75	549.40	552.30	-2.45	-0.44	680.36	491.56	-18.3	-17.8	1.9
NYSE Arca Biotech	5187.15	5143.96	5149.42	-35.15	-0.68	5649.54	4208.43	-4.9	-6.7	2.4
NYSE Arca Pharma	836.32	826.45	833.33	4.33	0.52	887.27	737.84	7.7	0.8	10.7
KBW Bank	106.46	105.52	106.22	0.35	0.34	147.56	94.66	-23.4	-19.7	0.6
PHLX Gold/Silver	113.19	111.17	113.04	-0.76	-0.67	167.76	91.40	-14.4	-14.7	8.4
PHLX Oil Service	83.18	78.91	83.06	-1.95	-2.29	88.37	49.14	-57.3	-57.6	7.3
PHLX Semiconductor	2696.70	2669.35	2675.43	-48.20	-1.77	4039.51	2162.32	-30.4	-32.2	14.5
Chos Volatility	24.12	22.30	22.38	-0.76	-3.29	36.45	16.60	-14.6	-29.8	19.4

Late Trading

Most active and biggest movers among NYSE, NYSE Arca, NYSE Amex and Nasdaq issues from 4 p.m. to 6 p.m. ET as reported by electronic trading services, securities dealers and regional exchanges. Minimum share price of \$2 and minimum after-hours volume of 50,000 shares.

Most active issues in late trading

Company	Symbol	Volume (000)	Last	Net chg	After Hours % chg	High
Invesco Senior Loan ETF	BKLN	6,514.7	20.73	0.03	0.14	20.78
SPDR S&P 500	SPY	6,390.2	394.57	-0.02	-0.01	400.00
KE Holdings ADR	BEKE	4,940.3	14.86	0.15	1.02	14.86
iShares iBoxx \$ HY Cn Bd	HYG	4,676.2	74.17	-0.03	-0.04	74.29
Bank of America	BAC	3,913.7	37.28	-0.03	-0.08	37.37
CSX	CSX	3,680.4	31.29	...	unch	31.32
Infosys ADR	INFY	3,091.4	19.12	-0.18	-0.93	19.38
iShares MSCI EAFE ETF	EFA	3,089.7	64.48	-0.18	-0.28	64.67

Percentage gainers...

Company	Symbol	Volume (000)	Last	Net chg	% chg	High
Harsco	HSC	320.6	6.93	0.33	5.08	6.93
Simmons First Natl CIA	SFNC	63.3	24.76	1.17	4.96	24.76
Agilent Technologies	A	104.4	151.30	6.16	4.24	152.40
Newell Brands	NWL	153.1	13.55	0.50	3.83	13.55
Ardagh Metal Packaging	AMBP	281.9	4.54	0.16	3.65	4.54

And losers

Company	Symbol	Volume (000)	Last	Net chg	% chg	High
scPharmaceuticals	SCPH	51.0	5.40	-0.69	-11.33	6.09
Gallagher	AUG	81.6	175.37	-20.38	-11.62	195.75
Ampco-Pittsburgh	AP	1,776.6	2.50	-0.25	-9.09	2.50
Gaming Leisure Prod	GLPI	68.7	46.41	-4.09	-8.81	50.50
FirstEnergy	FE	145.0	36.41	-2.20	-5.99	38.80

Nasdaq PHLX

Source: FactSet, Dow Jones Market Data

COMMONWEALTH OF VIRGINIA
STATE CORPORATION COMMISSION

AT RICHMOND, NOVEMBER 29, 2017

W-354, Sub 400
Public Staff
D'Ascendis Proposed Cross Exhibit No. 17

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2017 NOV 29 A 9:04

APPLICATION OF

VIRGINIA ELECTRIC AND POWER COMPANY

CASE NO. PUR-2017-00038

For the determination of the fair
rate of return on common equity to be
applied to its rate adjustment clauses

FINAL ORDER

On March 31, 2017, Virginia Electric and Power Company ("Dominion" or "Company") filed with the State Corporation Commission ("Commission") an application ("Application") for the determination of the fair rate of return on common equity ("ROE") to be applied to its rate adjustment clauses ("RACs") for the next two years pursuant to § 56-585.1:1 of the Code of Virginia ("Code").¹ Enacted in 2015, this provision of the Code requires that:

Commencing in 2017 and concluding in 2019, the State Corporation Commission, after notice and opportunity for a hearing, shall conduct a proceeding every two years to determine the fair rate of return on common equity to be used by a Phase II Utility as the general rate of return applicable to rate adjustment clauses under subdivisions A 5 or A 6 of § 56-585.1. A Phase II [U]tility's filing in such proceedings shall be made on or before March 31 of 2017 and 2019.²

The Company requests that the Commission approve an ROE of 10.5% for Dominion's RACs approved under Subdivision A 5 or A 6 of Code § 56-585.1, to be applied prospectively,

¹ Ex. 2 (Application) at 1.

² Code § 56-585.1:1 C 2. Dominion is a Phase II Utility. See Code § 56-585.1 A 1.

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effective with the date of the Commission's final order in this proceeding.³ Dominion currently has a total of nine RACs subject to the ROE to be determined in this proceeding.⁴

On April 21, 2017, the Commission issued an Order for Notice and Hearing that, among other things, docketed the Application; required Dominion to publish notice of its Application; gave interested persons the opportunity to comment on or participate in the proceeding; and scheduled a public hearing. Notices of participation were filed in this proceeding by the Virginia Committee for Fair Utility Rates ("Committee") and the Office of the Attorney General's Division of Consumer Counsel ("Consumer Counsel"). On July 26, 2017, Consumer Counsel filed the testimony and exhibits of its witness. On August 9, 2017, the Commission's Staff ("Staff") filed the testimony and exhibits of its witness. On August 23, 2017, the Company filed rebuttal testimony. No public comments were received on the Application.

The Commission convened a hearing, as scheduled, on September 6, 2017. No public witnesses appeared to testify at the hearing. The Company, the Committee, Consumer Counsel and Staff participated at the hearing. During the hearing, the Commission received testimony from witnesses on behalf of the participants, admitted evidence on the Application, and received closing argument from counsel.

NOW THE COMMISSION, upon consideration of this matter, is of the opinion and finds as follows.

As noted above, the sole purpose of this case is a determination of the fair ROE to be used by Dominion as the general return applicable to RACs under subdivisions A 5 or A 6 of

³ Ex. 2 (Application) at 4.

⁴ Dominion's RACs, and subsequent revisions thereto, approved under these statutes include Riders B, BW, C1/C2, GV, R, S, U, US-2, and W.

Code § 56-585.1 A.⁵ "Such fair rate of return shall be calculated pursuant to the methodology set forth in subdivisions A 2 a and b of § 56-585.1. . . ."⁶ Thus, the Commission follows a similar process in determining a fair ROE herein as has been done in prior proceedings using the methodology set forth in Code § 56-585.1 A 2 a and b. First, the Commission determines the market cost of equity. Next, the statutory peer group ROE floor is applied.

Market Cost of Equity

Company witness Hevert calculated Dominion's cost of equity to be between 10.25% and 10.75% and determined that, considering the economic requirements necessary to support continuous access to capital, an ROE of 10.5% represents Dominion's cost of equity.⁷ Consumer Counsel witness Woolridge calculated Dominion's market cost of equity to be between 7.6% and 8.75% and determined that 8.75% represents Dominion's market cost of equity.⁸ Staff witness Oliver calculated Dominion's market cost of equity to be between 8.25% and 9.25% and determined that establishing the Company's cost of capital at 9.1% was appropriate.⁹ The Committee examined the testimony presented by Company witness Hevert, Staff witness Oliver, and Consumer Counsel witness Woolridge and recommended that the Commission adopt a market cost of equity that is no higher than the 9.1% recommended by Staff witness Oliver.¹⁰

The Commission finds that a market cost of equity within a range of 8.5% and 9.5% fairly represents the actual cost of equity in capital markets for companies comparable in risk to

⁵ Code § 56-585.1:1 C 2.

⁶ Code § 56-585.1:1 C 3.

⁷ Ex. 3 (Hevert Direct) at 4-50, 54-56.

⁸ Ex. 4 (Woolridge Direct) at 1-82.

⁹ Ex. 5 (Oliver Direct) at 1-16, 24-34.

¹⁰ See Tr. 18.

Dominion seeking to attract equity capital. Furthermore, under the circumstances of this case and for purposes of implementing Code § 56-585.1:1, the Commission finds that using a cost of equity of 9.2% is fair and reasonable for these purposes. The Commission concludes that this return is supported by the evidence in the record, results in a fair and reasonable ROE, and satisfies the following constitutional standards as stated by Staff witness Oliver: "maintenance of financial integrity, the ability to attract capital on reasonable terms, and earnings commensurate with returns on investments of comparable risk."¹¹ Conversely, the Commission further finds that Dominion's proposed cost of equity of 10.25% to 10.75% represents neither the actual cost of equity in the marketplace nor a reasonable ROE for the Company.

We conclude that a market cost of equity of 9.2% is supported by reasonable proxy groups, growth rates, discounted cash flow ("DCF") methods, and risk premium analyses.¹² Indeed, we conclude that the evidence supports a market cost of equity at the midpoint of the range, *i.e.*, 9.0%. We find that approving an ROE above the midpoint of the range found reasonable (9.2%) is supported by the concept of gradualism in ROE determinations.

While the market cost of equity approved herein is supported by reasonable proxy groups, growth rates, DCF methods, risk premium analyses, and gradualism in ROE determinations, the Commission finds that Dominion's proposed market cost of equity of 10.5% is not supported by reasonable growth rates, DCF methods or risk premium analyses. For example, the Company continues to use only earnings per share as the measure of growth in its DCF model.¹³ As the Commission has previously stated, using only earnings per share as the

¹¹ Ex. 5 (Oliver Direct) at 4.

¹² *See, e.g.*, Ex. 5 (Oliver Direct) at 4-16, 24-34; Ex. 4 (Woolridge Direct) at 1-82.

¹³ Ex. 3 (Hevert Direct) at 19-21; Ex. 4 (Woolridge Direct) at 68-70; Ex. 5 (Oliver Direct) at 26-27; Tr. 166-67.

measure of long-term growth results in unreasonably high growth rates that upwardly skew results.¹⁴ Moreover, the Company's Capital Asset Pricing Model ("CAPM") analysis is also flawed. For example, the Company's highest ROE estimates result from the use of a 2019 projected 30-year Treasury bond yield of 4.2% and a 2021 projected 30-year Treasury bond yield of 4.4%.¹⁵ The Commission has explicitly rejected the use of such projected interest rates in prior cases, stating that inclusion of these projected rates inflates the results of the utility's risk premium analysis.¹⁶ In addition, the Company exclusively used earnings per share as the measure of long-term growth to develop the market risk premium component of its CAPM analysis, which results in an overstatement of the cost of equity.¹⁷ The Company's Bond Yield Plus Risk Premium analysis contains similar flaws as its CAPM analysis.¹⁸

¹⁴ See, e.g., *Application of Virginia Electric and Power Company, For a 2013 biennial review of the rates, terms and conditions for the provision of generation, distribution and transmission services pursuant to § 56-585.1 A of the Code of Virginia*, Case No. PUE-2013-00020, 2013 S.C.C. Ann. Rept. 371, 374, Final Order (Nov. 26, 2013); *Application of Appalachian Power Company, For an increase in electric rates*, Case No. PUE-2006-00065, 2007 S.C.C. Ann. Rept. 321, 327, Final Order (May 15, 2007) (stating that significant biases were embodied in Appalachian Power Company's ("APCo") DCF analysis because the utility's growth rate "primarily emphasized projected earnings per share growth rates and ignored other projected rates of growth for dividends, book value, and retained earnings to estimate a long-term sustainable growth rate assumed by the DCF model and reflected in the rates developed by the other witnesses.").

¹⁵ Ex. 3 (Hevert Direct) at 27; Ex. 9 (Hevert Rebuttal) at 96. Use of the 2021 projected 30-year Treasury bond yield of 4.4% in the Company's original CAPM analysis suggested an ROE range of 10.59% to 12.39%. Ex. 3 (Hevert Direct) at 27. In contrast, use of a current 30-year Treasury bond yield in the Company's original CAPM analysis suggested an ROE range of 9.26% to 11.06%. *Id.*

¹⁶ See, e.g., *Application of Appalachian Power Company, For the determination of the fair rate of return on common equity to be applied to its rate adjustment clauses*, Case No. PUE-2016-00038, 2016 S.C.C. Ann. Rept. 393, 395, Final Order (Oct. 6, 2016); *Application of Aqua Virginia, Inc., For an increase in rates*, Case No. PUE-2014-00045, 2016 S.C.C. Ann. Rept. 206, 209, Final Order (Jan. 7, 2016); *Application of Appalachian Power Company, For an increase in electric rates*, Case No. PUE-2006-00065, 2007 S.C.C. Ann. Rept. 321, 327, Final Order (May 15, 2007). See also Ex. 5 (Oliver Direct) at 27-29.

¹⁷ See, e.g., Ex. 3 (Hevert Direct) at 25-26, Schedule 2; Ex. 4 (Woolridge Direct) at 71-80; Ex. 5 (Oliver Direct) at 29-30.

¹⁸ See Ex. 3 (Hevert Direct) at 27-30; Ex. 4 (Woolridge Direct) at 80-82; Ex. 5 (Oliver Direct) at 29-30.

Further, we reject claims that certain business risks facing Dominion warrant a 10.5% ROE.¹⁹ For example, while Company witness Hevert claims that risks associated with the Company's anticipated capital expenditures warrant a 10.5% ROE, of the approximately \$8.5 billion of additional planned capital expenditures the Company anticipates making, the record indicates that Dominion plans to recover over \$5 billion of this projected amount through RACs, which permit the timely and current recovery of all reasonable and prudent costs on a dollar-for-dollar basis.²⁰

Dominion suggests that its ROE should not be any lower than 9.4%.²¹ The Commission first approved an ROE of 9.4% for Dominion in a February 16, 2017 Order issued in Case Nos. PUE-2016-00059, PUE-2016-00060, PUE-2016-00061, PUE-2016-00062 and PUE-2016-00063.²² The midpoint of the range found reasonable in those cases was 9.0%. The Commission, however, did not direct an ROE of 9.0% but, rather, approved 9.4% based on the concept of gradualism in ROE cases. In addition, the Commission's decision in those proceedings was based on the record of evidence presented there, which reflects earlier financial data. For example, in those proceedings Staff and the Company relied upon financial data from late 2016.²³ In contrast, in the instant case, the Company updated its ROE results with financial data through July 2017.²⁴ Moreover, the record presented in this proceeding shows that

¹⁹ Ex. 3 (Hevert Direct) at 30-37; Ex. 5 (Oliver Direct) at 31-34.

²⁰ Ex. 3 (Hevert Direct) at 30-31; Ex. 5 (Oliver Direct) at 31.

²¹ Tr. 17.

²² See, e.g., *Application of Virginia Electric and Power Company d/b/a Dominion Virginia Power, For revision of rate adjustment clause: Rider S, Virginia City Hybrid Energy Center*, Case No. PUE-2016-00062, Doc. Con. Cen. No. 170220479, Order (Feb. 16, 2017).

²³ *Id.* at 11-12.

²⁴ See, e.g., Ex. 9 (Hevert Rebuttal) at Schedule 1.

The participants differed on which utilities should be included in the statutory peer group in this proceeding. First, Dominion excluded Mississippi Power Company ("Mississippi Power") from the statutory peer group solely because "its Moody's long term bond rating (Ba1) has dropped below the required level of at least Baa."²⁶ Staff and Consumer Counsel included Mississippi Power in their statutory peer group analyses because "Mississippi Power had a Moody's long-term bond rating of Baa3 at the end of the test period."²⁷

Code § 56-585.1 A 2 b mandates that "an investor-owned electric utility shall be deemed part of such peer group if ... (iii) it had a long-term bond rating assigned by Moody's Investors Service of at least Baa at the end of the most recent test period subject to such biennial review...." Code § 56-585.1:1 C 3 states that the ROE "shall be calculated [utilizing] ... a 12-month test period ending December 31 immediately preceding the year in which the proceeding is conducted." Factually, December 31, 2014, is "the end of the most recent test period subject to [a] biennial review"²⁸ for Dominion. Calendar year 2016 is the "12-month test period ending December 31 immediately preceding the year in which the [present] proceeding is conducted."²⁹ Notably, under either plain language interpretation identified above, Mississippi Power's downgrade would not affect its inclusion in the statutory peer group because the downgrade occurred on March 1, 2017, which is clearly after the end of either review period.³⁰ The Commission therefore finds that, for purposes of this proceeding, Mississippi Power shall be considered part of the peer group.

²⁶ Ex. 2 (Application) at Filing Schedule 45 - Statement 3A.

²⁷ Ex 4 (Woolridge Direct) at 86. *See also* Ex. 5 (Oliver Direct) at 19-20.

²⁸ Code § 56-585.1 A 2 b.

²⁹ Code § 56-585.1:1 C 3.

³⁰ Ex 4 (Woolridge Direct) at 86; Ex. 5 (Oliver Direct) at 19; Tr. 132.

The participants also differed on whether APCo should be considered part of the peer group. Staff and Consumer Counsel included APCo in their proposed peer groups, while Dominion excluded APCo from its proposed peer group.³¹ However, as discussed below, we have selected a statutory floor majority that is lower than the ROE approved herein regardless of whether APCo is included as part of the total peer group; thus, we need not address APCo's inclusion or exclusion as part of this proceeding.

The majority that the Commission selects had, on average, a return on average equity close to the ROE found fair and reasonable herein.³² This results in a statutory floor below the ROE approved herein.³³ The Commission concludes that the specific majority chosen herein is reasonable and does not violate any constitutional or statutory provision.³⁴

³¹ Ex. 3 (Hevert Direct) at 51-54; Ex 4 (Woolridge Direct) at 85-86; Ex. 5 (Oliver Direct) at 18-19; Ex. 9 (Hevert Rebuttal) at 55-56, 95.

³² Based upon the facts in this case, the Commission finds that it is reasonable to utilize returns on average equity for this purpose.

³³ The statutory floor without APCo in the peer group is 9.09% and is comprised of the following companies: Entergy Mississippi, Inc., Louisville Gas & Electric Company, Duke Energy Progress, Inc., South Carolina Electric & Gas Company, and Duke Energy Carolinas, LLC. The statutory floor with APCo in the peer group is 9.07% and is comprised of the following companies: Entergy Mississippi, Inc., Louisville Gas & Electric Company, Duke Energy Progress, Inc., South Carolina Electric & Gas Company, Duke Energy Carolinas, LLC, and APCo. *See* Ex. 5 (Oliver Direct) at Schedule 12.

³⁴ The Code clearly leaves the selection of the "majority" to the Commission's discretion. If the General Assembly wanted the Commission to apply a particular approach or evaluation methodology in selecting a majority, it could have directed as such; it did not. As the Commission has previously determined, it is reasonable in this proceeding to select a majority that has an earned return that is close to the market cost of equity capital found fair and consistent with the public interest herein. The Commission does not, and need not, find that this is the only majority that is reasonable. *See, e.g., Application of Virginia Electric and Power Company, For a 2013 biennial review of the rates, terms and conditions for the provision of generation, distribution and transmission services pursuant to § 56-585.1 A of the Code of Virginia*, Case No. PUE-2013-00020, 2013 S.C.C. Ann. Rept. 371, 375-76, Final Order (Nov. 26, 2013).

In sum, the Commission concludes that the fair ROE in this proceeding for Dominion is 9.2%.³⁵ The Commission finds that this ROE is supported by the record, is fair and reasonable to the Company within the meaning of the Code, permits the attraction of capital on reasonable terms, fairly compensates investors for the risks assumed, enables the Company to maintain its financial integrity, and satisfies all applicable constitutional standards.

Accordingly, IT IS SO ORDERED and this matter is dismissed.

AN ATTESTED COPY hereof shall be sent by the Clerk of the Commission to all persons on the official Service List in this matter. The Service List is available from the Clerk of the Commission, c/o Document Control Center, 1300 East Main Street, First Floor, Tyler Building, Richmond, Virginia 23219. A copy also shall be sent to the Commission's Office of General Counsel and Divisions of Public Utility Regulation and Utility Accounting and Finance.

³⁵ Pursuant to Code § 56-585.1:1 C 3, "any adjustment to the fair rate of return for applicable rate adjustment clauses under subdivisions A 5 and A 6 of § 56-585.1 [shall take] effect on the date of the Commission's final order in the proceeding, utilizing rate adjustment clause true-up protocols as the Commission may in its discretion determine." Accordingly, the 9.2% ROE found appropriate herein shall become effective with respect to the Company RACs under Code § 56-585.1 A 5 and A 6 on the date of this Order and any resulting over- or under-recovery shall be addressed through appropriate true-up protocols in future RAC proceedings.

**STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH**

DOCKET NO. W-354, SUB 363
DOCKET NO. W-354, SUB 364
DOCKET NO. W-354, SUB 365

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

DOCKET NO. W-354, SUB 363)
)
In the Matter of)
Application by Carolina Water Service, Inc.)
of North Carolina, 4944 Parkway Plaza)
Boulevard, Suite 375, Charlotte, North)
Carolina, 28217, for an Accounting Order to)
Defer Incremental Storm Damage Expenses)
Incurred as a Result of Hurricane Florence)
)
DOCKET NO. W-354, SUB 364)
)
In the Matter of)
Application by Carolina Water Service, Inc.)
of North Carolina, 4944 Parkway Plaza)
Boulevard, Suite 375, Charlotte, North)
Carolina, 28217, for Authority to Adjust and)
Increase Rates for Water and Sewer Utility)
Service in All of its Service Areas in North)
Carolina)
)
DOCKET NO. W-354, SUB 365)
)
In the Matter of)
Application by Carolina Water Service, Inc.)
of North Carolina, 4944 Parkway Plaza)
Boulevard, Suite 375, Charlotte, North)
Carolina, 28217, for an Accounting Order to)
Defer Post-In-Service Depreciation and)
Financing Costs Related to Major New)
Projects That Are or Will Be In-Service Prior)
to the Date of An Order in Petitioner's)
Pending Base Rate Case)

ORDER GRANTING PARTIAL
RATE INCREASE AND
REQUIRING CUSTOMER NOTICE

HEARD: Thursday, September 5, 2019, at 7:00 p.m., in Courtroom 5350, Mecklenburg County Courthouse, 832 East 4th Street, Charlotte, North Carolina

Tuesday, September 10, 2019, at 7:00 p.m., in Courtroom A, Dare County Courthouse, 962 Marshall C. Collins Drive, Manteo, North Carolina

Tuesday, October 8, 2019, at 7:00 p.m., in Courtroom #1, Watauga County Courthouse, 842 W. King Street, Boone, North Carolina

Wednesday, October 9, 2019, at 7:00 p.m., in Courtroom 1A, Buncombe County Courthouse, 60 Court Plaza, Asheville, North Carolina

Monday, October 14, 2019, at 7:00 p.m., in Commission Hearing Room 2115, Dobbs Building, 430 North Salisbury Street, Raleigh, North Carolina

Tuesday, October 22, 2019, at 7:00 p.m., in the Superior Courtroom, Onslow County Courthouse, 625 Court Street, Jacksonville, North Carolina

Monday, December 2, 2019, at 2:00 p.m., in Commission Hearing Room 2115, Dobbs Building, 430 North Salisbury Street, Raleigh, North Carolina

BEFORE: Commissioner ToNola D. Brown-Bland, Presiding; Chair Charlotte A. Mitchell; and Commissioners Lyons Gray, Daniel G. Clodfelter, Kimberly W. Duffley, and Jeffrey A. Hughes

APPEARANCES:

For Carolina Water Service, Inc. of North Carolina:

Jo Anne Sanford, Sanford Law Office, PLLC, Post Office Box 28085, Raleigh, North Carolina 27611

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

Mark R. Alson, Ice Miller LLP, One American Square, Suite 290, Indianapolis, Indiana 46282-0200

Christina D. Cress, Nichols, Choi & Lee, PLLC, 4700 Homewood Court, Suite 220, Raleigh, North Carolina 27609

In addition to estimating the cost of equity for his Utility Proxy Group of publicly-traded water utilities, witness D'Ascendis attempted to estimate the cost of equity for another proxy group consisting of 10 domestic, non-price regulated companies. The rebuttal results of the DCF, RPM, and CAPM applied to the non-price regulated proxy group are 11.63%, 11.23%, and 10.39%, respectively. The Commission concludes that these results are unreasonably high. Each of these results is higher than witness D'Ascendis' estimates of the cost of equity for his own Utility Proxy Group and deserves no weight. The Commission further concludes that given the difference in these results, the risk of the two groups is not equal and the Utility Proxy Group is more reliable as a proxy for the investment risk of common equity in CWSNC.

After determining that the indicated cost of equity from the DCF, CAPM, and risk premium methods applied to both of his proxy groups equals in his rebuttal 9.80% rate of return on common equity, witness D'Ascendis then adjusted the indicated cost of equity upward by 0.40% to reflect CWSNC's smaller size compared to companies in his Utility Proxy Group. He testified that the size of the company is a significant element of business risk for which investors expect to be compensated through higher returns. Witness D'Ascendis calculated his size adjustment as described in his prefiled direct testimony and stated that even though a 3.94% upward size adjustment is indicated, he applies a 0.40% size premium to CWSNC's indicated common equity cost rate.

Witness Hinton testified that he does not believe it is appropriate to add a risk premium to the cost of equity of CWSNC due to size for several reasons. First, from a regulatory policy perspective, witness Hinton stated that ratepayers should not be required to pay higher rates because they are located in the franchise area of a utility that is arbitrarily considered to be small. Further, if such adjustments were routinely allowed, an incentive would exist for large utilities to form subsidiaries or split-up subsidiaries to obtain higher returns. In addition, he noted that CWSNC operates in a franchise environment that insulates the Company from the competition with procedures in place for rate adjustments for circumstances that impact its earnings. Finally, while witness Hinton stated that while there are studies that address how the small size of a company relates to higher returns, he is aware of only one study that focuses on the size of regulated utilities and risk and that study concluded that utility stocks do not exhibit a significant differential in risk due to size. In rebuttal, witness D'Ascendis maintained that a small size adjustment was necessary based on the results of studies he cited and discussed. He contended that the study concerning size premiums for utilities discussed by witness Hinton was flawed.

The uncontroverted evidence is that both CWSNC and the Public Staff used the Utilities, Inc. capital structure and debt cost in this proceeding. CWSNC obtains all its debt and equity from CWSNC's parent company Utilities, Inc. CWSNC does not participate in the debt markets. The Corix CEO, Gordon Barefoot, testified that Corix, the parent company of Utilities, Inc., provides access to favorable terms for debt financing in capital markets.

Based upon the foregoing and the entire record in this proceeding, the Commission concludes that a size adjustment of 0.40% is not warranted and should not be approved. The Commission determines there is insufficient evidence to authorize an adjustment to the approved rate of return on common equity in this case. The record simply does not indicate the extent to which CWSNC's size alone justifies the added risk premium. While a small water/wastewater utility might face greater risk than a publicly-traded peer group, because for example the service area was confined to a hurricane-prone coastal geographic area, evidence of such factual predicates is absent from the record. CWSNC has water and wastewater systems along the North Carolina coast, in the Piedmont, and in the mountains. The Commission notes that the witnesses also disagreed with respect to whether the studies discussed in the testimony concerning size and risk are reliable or even applicable to regulated utilities. The Commission concludes that the testimony regarding these studies is not convincing and does not support a size adjustment.

Having determined that the appropriate rate of return on common equity based upon the evidence in this proceeding is 9.50%, the Commission notes that there is considerable testimony concerning the authorized returns on equity for water utilities in other jurisdictions. While the Commission has relied upon the record in this proceeding and is certainly aware that returns in other jurisdictions can be influenced by many factors, such as different capital market conditions during different periods of time, settlements versus full litigation, the Commission concludes that the rate of return on common equity trends and decisions by other regulatory authorities deserve some weight as (1) they provide a check or additional perspective on the case-specific circumstances, and (2) the Company must compete with other regulated utilities in the capital markets, meaning that a rate of return significantly lower than that approved for other utilities of comparable risk would undermine the Company's ability to raise necessary capital, while a rate of return significantly higher than other utilities of comparable risk would result in customers paying more than necessary.

Public Staff D'Ascendis Cross-Examination Exhibit 2, which has RRA approved rate of return on common equity listings showing approved return on equity decisions for water utilities across the country from January 2014 through June 30, 2019, is helpful in illustrating that the average rate of return on common equity for water utilities was 9.59% in 2014, 9.79% in 2015, 9.71% in 2016, 9.31% in 2017, 9.45% in 2018, and in the only five reported cases for the first six months of 2019 the average is 9.60%. This authorized return data is generally supportive of the Commission approved return on equity of 9.50% based upon all the evidence in this proceeding.

These factors lead the Commission to conclude that a 9.50% rate of return on common equity is supported by the substantial weight of the evidence in this proceeding. However, to meet its obligation in accord with the holding in *Cooper I*, the Commission will next address the impact of changing economic conditions on customers.

In this case all parties had the opportunity to present the Commission with evidence concerning changing economic conditions as they affect customers. The testimony of witnesses D'Ascendis and Hinton, which the Commission finds entitled to

customers, and that other bills produced, such as final bills, late notices, re-bills, or other miscellaneous bills are not included in the NCUC Form W-1, Item 26 filing; and

17. That the Chief Clerk shall establish Docket No. W-354, Sub 364A as the single docket to be used for all future WSIC and SSIC filings, orders, and reporting requirements and shall close Docket No. W-354, Sub 360A.

ISSUED BY ORDER OF THE COMMISSION.

This the 31st day of March, 2020.

NORTH CAROLINA UTILITIES COMMISSION

A handwritten signature in black ink that reads "Kimberley A. Campbell". The signature is written in a cursive, flowing style.

Kimberley A. Campbell, Chief Clerk

**STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH**

DOCKET NO. E-2, SUB 1131
DOCKET NO. E-2, SUB 1142
DOCKET NO. E-2, SUB 1103
DOCKET NO. E-2, SUB 1153

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

DOCKET NO. E-2, SUB 1131)	
)	
In the Matter of)	
Application by Duke Energy Progress, LLC,)	
for Accounting Order to Defer Incremental)	
Storm Damage Expenses)	
	)	ORDER ACCEPTING
DOCKET NO. E-2, SUB 1142	)	STIPULATION, DECIDING
	)	CONTESTED ISSUES AND
In the Matter of	)	GRANTING PARTIAL RATE
Application by Duke Energy Progress, LLC,	)	INCREASE
For Adjustment of Rates and Charges)	
Applicable to Electric Utility Service in North)	
Carolina)	
)	
DOCKET NO. E-2, SUB 1103)	
)	
In the Matter of)	
Joint Application by Duke Energy Progress,)	
LLC, and Duke Energy Carolinas, LLC, for)	
Accounting Order to Defer Environmental)	
Compliance Costs)	
)	
DOCKET NO. E-2, SUB 1153)	
)	
In the Matter of)	
Petition of Duke Energy Progress, LLC, for an)	
Order Approving a Job Retention Rider)	

HEARD: Tuesday, September 12, 2017, at 7:00 p.m., Richmond County Courthouse,
Courtroom A, 105 W. Franklin Street, Rockingham, North Carolina

Monday, September 25, 2017, at 7:00 p.m., Commission Hearing Room
2115, Dobbs Building, 430 North Salisbury Street, Raleigh, North Carolina

Wednesday, September 27, 2017, at 7:00 p.m., Buncombe County
Courthouse, Courtroom 1A, 60 Court Plaza, Asheville, North Carolina

Wednesday, October 11, 2017, at 7:00 p.m., Greene County Courthouse,
301 N. Greene Street, Snow Hill, North Carolina

Thursday, October 12, 2017, at 7:00 p.m., New Hanover County
Courthouse, 316 Princess Street, Wilmington, North Carolina

Monday, November 27, 2017, at 1:30 p.m., Commission Hearing Room
2115, Dobbs Building, 430 North Salisbury Street, Raleigh, North Carolina

BEFORE: Chairman Edward S. Finley, Jr., Presiding; Commissioners Bryan E.
Beatty,¹ ToNola D. Brown-Bland, Jerry C. Dockham, James G. Patterson,
Lyons Gray, and Daniel G. Clodfelter

APPEARANCES:

For Duke Energy Progress, LLC:

Lawrence B. Somers
Deputy General Counsel
410 South Wilmington Street, NCRH 20
Raleigh, North Carolina 27602

Heather Shirley Smith
Deputy General Counsel
40 West Broad Street, Suite 690
Greenville, South Carolina 29601

Camal O. Robinson, Senior Counsel
Duke Energy Corporation
550 South Tryon Street
Charlotte, North Carolina 28202

John T. Burnett
Deputy General Counsel
Duke Energy Florida
299 1st Avenue N, DEF-151
St. Petersburg, Florida 33701

¹ Commissioner Bryan E. Beatty's term ended before the Commission issued its decision in this proceeding.

Commission approved rate of return on equity for a vertically integrated electric company for the period of 2014 through the hearing in 2017 was 9.2%. Witness Parcell's specific DCF result was 8.85%, witness Polich's was 8.48%, and the mid-point of witness O'Donnell's was 8.25%. The average of Hevert's constant growth DCF means was 8.92%, and the mid-point of the range of witness Hevert's Multi-Stage DCF analysis was 9.0%. The Commission considers all of these DCF results to be outliers, being well below the lowest vertically-integrated rate of return on equity of 9.2%. The Commission determines that all of these DCF analyses in the current market produce unrealistic low results.

The Commission gives no weight to any of the witnesses' CAPM analyses. The analyses of witness Parcell with a mid-point of 6.4% is unrealistically low, and witness Parcell agreed as much in his testimony. The CAPM analysis of witness O'Donnell resulted in a CAPM rate of return on equity mid-point of 6.05%, which is an outlier well below the 9.2% previously discussed. Witness Polich's CAPM weighted median rate of return on equity of 7.56% is also an outlier and unrealistically low. DEP Witness Hevert's CAPM range of 9.15% to 11.49% is also an outlier and upwardly biased due to his use of the near-term projected 30-year Treasury interest rate of 3.52%, which witness Parcell testified greatly exceeds the current level of long-term Treasury of about 2.8%. Witness Hevert's risk premium component of this CAPM uses a constant growth DCF for the S&P 500 companies using analysts projected earnings per share forecasts as the growth component. Witness Hevert's DCF dividend growth, component based solely on analysts' earnings per share growth projections, without consideration of any historical results, is upwardly biased and unreliable.

The rate of return on equity testimonies of Commercial Group witnesses Chriss and Rosa focused on the commission-approved rates of return on equity authorized for vertically-integrated electric utilities in 2014, 2015, 2016, and year-to-date 2017 listed in Commercial Group Exhibit CR-3. The Commission gives weight to this testimony only as a check on the Commission's approved 9.9% rate of return on equity and to evaluate outlier rate of return on equity recommendations. CIGFUR witness Phillips' testimony focused on the RRA report Major Rate Case Decisions. The 9.61% average authorized rate of return on equity for electric utilities included both vertically-integrated electric utilities and distribution-only electric utilities. Since DEP is a vertically-integrated electric utility, the Commission gives witness Phillips' rate of return on equity testimony limited weight regarding authorized rates of return on equity for distribution-only electric utilities. Rather, as noted above, recently authorized rates of return on equity for vertically-integrated electric utilities since 2014 average 9.85%, and in jurisdictions with constructive regulatory environments average 10.03%, and serve as a better check.

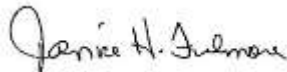
The 9.9% rate of return on equity approved in this proceeding for DEP is also consistent with the 9.9% rate of return on equity the Commission approved for DNCP in the Order dated December 22, 2016, in Docket No. E-22, Sub 532.

The Commission notes further that its approval of a rate of return on equity at the level of 9.9% – or for that matter, at any level – is not a guarantee to the Company that it will earn a rate of return on equity at that level. Rather, as North Carolina law requires, setting the rate of return on equity at this level merely affords DEP the opportunity to

32. That if DEP receives revenue for any deferred cost for a longer period of time than the amortization period approved by the Commission for that deferred cost, the Company shall continue to record all revenue received for that deferred cost in the specific regulatory asset account established for that deferred cost until the Company's next general rate case.

This 23rd day of February, 2018.

NORTH CAROLINA UTILITIES COMMISSION



Janice H. Fulmore, Deputy Clerk

Commissioner ToNola D. Brown-Bland dissents in part.

Commissioner Daniel G. Clodfelter concurs in part, and dissents in part.

Commissioner Charlotte A. Mitchell did not participate in this decision.

**STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH**

DOCKET NO. E-7, SUB 1146
DOCKET NO. E-7, SUB 819
DOCKET NO. E-7, SUB 1152
DOCKET NO. E-7, SUB 1110

DOCKET NO. E-7, SUB 1146)

In the Matter of)
Application of Duke Energy Carolinas, LLC,)
for Adjustment of Rates and Charges)
Applicable to Electric Utility Service in North)
Carolina)

DOCKET NO. E-7, SUB 819)

In the Matter of)
Amended Application by Duke Energy)
Carolinas, LLC, for Approval of Decision to)
Incur Nuclear Generation Project)
Development Costs)

ORDER ACCEPTING STIPULATION,
DECIDING CONTESTED ISSUES,
AND REQUIRING REVENUE
REDUCTION

DOCKET NO. E-2, SUB 1152)

In the Matter of)
Petition of Duke Energy Carolinas, LLC, for)
an Order Approving a Job Retention Rider)

DOCKET NO. E-7, SUB 1110)

In the Matter of)
Joint Application by Duke Energy Progress,)
LLC, and Duke Energy Carolinas, LLC, for)
Accounting Order to Defer Environmental)
Compliance Costs)

HEARD: Tuesday, January 16, 2018, at 7:00 p.m., in the Macon County Courthouse,
Courtroom A, 5 W. Main Street, Franklin, North Carolina

Wednesday, January 24, 2018, at 7:00 p.m., in the Guilford County
Courthouse, Courtroom 1C, 201 S. Eugene Street, Greensboro, North
Carolina

Tuesday, January 30, 2018, at 6:30 p.m., in the Mecklenburg County Courthouse, 832 E. 4th Street, Charlotte, North Carolina

Monday, March 5, 2018, at 1:30 p.m., Commission Hearing Room 2115, Dobbs Building, 430 North Salisbury Street, Raleigh, North Carolina

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

APPEARANCES:

For Duke Energy Carolinas, LLC (DEC):

John T. Burnett, Deputy General Counsel
Duke Energy Corporation
550 South Tryon Street, Charlotte, North Carolina 28202

Heather Shirley Smith, Deputy General Counsel
Duke Energy Corporation
40 W. Broad Street, Suite 690, Greenville, South Carolina 29601

Lawrence B. Somers, Deputy General Counsel
Duke Energy Corporation
P.O. Box 1551, Raleigh, North Carolina 27602

Camal O. Robinson, Senior Counsel
Duke Energy Corporation
550 South Tryon Street, Charlotte, North Carolina 28202

Jack E. Jirak, Associate General Counsel
Duke Energy Corporation
401 S. Wilmington Street, NCRH 20, Raleigh, North Carolina 27601

Kiran H. Mehta
Molly McIntosh Jagannathan
Troutman Sanders LLP
301 S. College Street, Suite 3400, Charlotte, North Carolina 28202

Brandon F. Marzo
Troutman Sanders LLP
600 Peachtree Street NE, Suite 5200, Atlanta, Georgia 30308

In its post-hearing brief, Tech Customers state that while the Stipulation is material evidence entitled to appropriate weight in determining DEC's rate of return on equity and other rate of return inputs, the return approved by the Commission must be justified by substantial, competent evidence in the record as a whole. Tech Customers acknowledge that the 9.9% rate of return agreed to in the Stipulation is comfortably within the range advocated by the parties to the Stipulation, but argues that the Stipulation, standing alone, cannot support the 9.9% recommended return on equity, particularly when the rate at one side of the range lacks any indicia of a rational basis.

Tech Customers state that a utility advocating a rate of return on equity figure that substantially exceeds the output of widely-recognized empirical models and that exceeds recently authorized returns must justify that proposed upward adjustment with a quantitative analysis that shows the applicants risk profile to be materially higher than that of the proxy group. Tech Customers state that its witness Strunk outlined several empirical measures of risk in his testimony and the associated exhibits and none suggests DEC presents a higher risk profile than the proxy group companies. Given the results of the empirical models and the lack of objective evidence by DEC that it presents a higher risk profile than the proxy group warranting an upward departure from these measures, a rate of return on equity of 9.9% is unreasonably high. Accordingly, Tech Customers contend that the evidence presented concerning other authorized rates of return on equity, when put into proper context, lends substantial support to an authorized rate of return on equity of 9.70%.

The Commission has carefully evaluated the DCF analysis recommendations of witnesses Parcell, Hevert, Woolridge, Strunk, and O'Donnell, and the Commission gives limited weight to these analyses. As shown on Commercial Group's Exhibit CR-3, the lowest Commission-approved rate of return on equity for a vertically-integrated electric company for the period of 2015 through 2017 was 9.1%. Witness Parcell's specific DCF result was 8.7%, as stated in AGO witness Woolridge's Supplemental Exhibit JRW-2, p.1, his DCF recommendation was 8.80%, and the mid-point of witness O'Donnell's DCF was 8.5%. The average of Hevert's constant growth DCF means, as stated in Table 11 of his rebuttal testimony, was 8.45%, and the mid-point of the range of witness Hevert's Multi-Stage DCF analysis was 8.78%. The Commission considers all of these DCF results to be outliers, being well below the lowest vertically-integrated authorized rate of return on equity of 9.1%. The Commission determines that all of these DCF analyses in the current market produce unrealistically low results.

The Commission gives no weight to any of the witnesses' CAPM analyses. The analyses of witness Parcell with a mid-point of 6.5% is unrealistically low, and witness Parcell agreed as much in his testimony. The CAPM analysis of witness O'Donnell resulted in a CAPM rate of return on equity mid-point of 6.29%, which is an outlier well below the 9.1% previously discussed. Witness Woolridge's CAPM weighted median rate of return on equity of 7.90% is also an outlier and unrealistically low. DEC Witness Hevert's CAPM range of 9.18% to 11.88% is also an outlier and upwardly biased due to witness Hevert's risk premium component of his CAPM using a constant growth DCF for

the S&P 500 companies solely using analysts projected EPS forecasts as the growth component. Witness Hevert's DCF dividend growth, component based solely on analysts' EPS growth projections, without consideration of any historical results, is upwardly biased and unreliable.

The rate of return on equity testimonies of Commercial Group witnesses Chriss and Rosa focused on the commission-approved rates of return on equity authorized for vertically-integrated electric utilities in 2015, 2016, and 2017 listed in Commercial Group Exhibit CR-3. The Commission gives weight to this testimony only as a check on the Commission's approved 9.9% rate of return on equity and to evaluate outlier rate of return on equity recommendations. CIGFUR III witness Phillips' testimony focused on the RRA report Major Rate Case Decisions, which showed a 9.61% average authorized rate of return on equity for electric utilities including both vertically-integrated electric utilities and distribution-only electric utilities. Since DEC is a vertically-integrated electric utility, the Commission gives witness Phillips' rate of return on equity testimony limited weight regarding authorized rates of return on equity for distribution-only electric utilities. Rather, as stated in Commercial Group Exhibit CR-3, recently authorized rates of return on equity for vertically-integrated electric utilities since 2015 average 9.78%, and in jurisdictions with RRA rated Average 1 constructive regulatory environments, being the same A1 rating as North Carolina, as shown in Hevert Exhibit RBH-R27 for the 16 decisions for vertically integrated electric utilities in the years 2015, 2016, and 2017, the average approved rate of return on equity was 9.93%. These two vertically-integrated electric utilities averages serve as a better check.

The 9.9% rate of return on equity approved in this proceeding for DEC is also consistent with the 9.9% rate of return on equity that the Commission approved for DNCP in the 2016 Rate Order and DEP in the 2018 Rate Order.

The Commission notes further that its approval of a rate of return on equity at the level of 9.9% – or for that matter, at any level – is not a guarantee to the Company that it will earn a rate of return on equity at that level. Rather, as North Carolina law requires, setting the rate of return on equity at this level merely affords DEC the opportunity to achieve such a return. The Commission finds and concludes, based upon all the evidence presented, that the rate of return on equity provided for herein will indeed afford the Company the opportunity to earn a reasonable and sufficient return for its shareholders, while at the same time producing rates that are just and reasonable to its customers.

Capital Structure

DEC originally proposed using a capital structure of 53% members' equity and 47% long-term debt. Tr. Vol. 4, p. 43. The Stipulation provides for a capital structure of 52% equity and 48% long-term debt. For the reasons set forth herein, the Commission finds that a 52/48 capital structure as set out in the Stipulation is just and reasonable.

Witness De May testified that the Company's specific debt/equity ratio will vary over time, depending on the timing and size of debt issuances, seasonality of earnings,

48. That DEC shall submit a proposed customer notice to the Commission for review and approval, and upon approval of the notice by the Commission, shall give appropriate notice of the approved rate adjustment by mailing the notice to each of its North Carolina retail customers during the billing cycle following the effective date of the new rates.

ISSUED BY ORDER OF THE COMMISSION.

This the 22nd day of June, 2018.

NORTH CAROLINA UTILITIES COMMISSION



Linnetta Threatt, Deputy Clerk

Commissioner ToNola D. Brown-Bland concurring in part and dissenting in part.

Commissioner Daniel G. Clodfelter concurring in part and dissenting in part.

Commissioner Charlotte A. Mitchell did not participate in this decision.

Mr. D'Ascendis Return on Equity Recommendations and Authorized Returns on Equity

(June 2019 through September 2022)

Company Name	Case No.	State	D'Ascendis Percent Recommended ROE	Date Authorized	Percent Authorized ROE	Basis Points Authorized ROE Below D'Ascendis
Carolina Water Service, Inc.	W-354 Sub 364	NC	10.20%	6/2019	9.50%	70
Aqua North Carolina Inc.	W-218 Sub 526	NC	10.1.%	12/2019	9.40% (1)	70
Arizona Water Company	W01445A-19-0278	AR	9.73%	12/2019	9.00%	73
Blue Granite Water	2019-290WS	SC	10.00% midpoint	12/2019	7.46%	254
Utilities Inc. Florida	20200139-WS	FL	11.75%	6/2020	9.75%	200
Aqua Virginia	PUR 8020-00106	VA	11.20%	7/2020	9.30% (1)	190
Bluegrass Water Utility	2020-00290	KY	11.80%	10/2020	9.90%	190
EPCOR Water Arizona	WS-0103A-20-0177	AZ	10.24%	2/1/2022	9.83%	41
Aquarion Water Company of New Hampshire, Inc	DW 20-184	NH	10.25%	7/29/2022	9.10% (1)	115
Launiupoko Irrigation Co., Inc.	2020-0217	HI	13.00%	Ongoing		
Utility Services of Illinois, Inc.	21-0198	IL	10.80%	12/1/2021	9.52%	128
Community Utilities of Pennsylvania, Inc.	R-2021-302507	PA	10.35%	1/13/2022	N/A (1)	

Middlesex Water Company	WR21050813	NJ	10.65%	Ongoing		
Utilities, Inc. of Louisiana	U-36003	LA	11.00%	8/4/2022	9.50% (1)	150
Aqua Ohio, Inc.	21-0595-WW-AIR	OH	10.75%	9/21/2022	9.50% (1)	125
Carolina Water Service, Inc.	W-354 Sub 384	NC	10.50%	4/8/2022	9.40% (1)	110
The Maine Water Company	2021-00053	ME	10.25%	Ongoing		
Water Service Corporation of Kentucky	2022-00147	KY	10.60%	Ongoing		
Borough of Ambler - Bureau of Water	2022-3031704	PA	10.75%	11/10/2022	N/A (1)	

(1) Result is product of settlement/stipulation

Mr. D'Ascendis Return on Equity Recommendations and Authorized Returns on Equity 2015 through 2019 Year-to-Date

Company Name	Case Number	State	D'Ascendis Percent Recommended ROE	Date Authorized	Percent Authorized ROE	Basis Points D'Ascendis Below Authorized ROE
Middlesex Water Company	WR15030391	NJ	10.40	7/27/2015	9.75 ⁽¹⁾	65
Utility Services of Illinois, Inc.	14-0741	IL	N/A	9/22/2015	N/A ⁽¹⁾	
Carolina Water Service, Inc.	2015-199-WS	SC	10.00-10.50	12/22/2015	9.34 ⁽¹⁾	91
Aqua Indiana, Inc. Aboite Wastewater Division	44752	IN	10.15-10.70	8/4/2016	9.70 ⁽¹⁾	72
Aqua Ohio, Inc.	16-0907-WW-AIR	OH	10.25-10.65	2/14/2017	9.87 ⁽¹⁾	58
Raccoon Creek Utility Operating Company, Inc.	SR-2016-0202	MO	15.75	10/17/2016	12.15 ⁽¹⁾	360
Aqua Illinois, Inc.	17-0259	IL	10.85	3/2/2018	9.60 ⁽¹⁾	125
Aqua Virginia, Inc.	PUR-2017-00082	VA	10.60	10/19/2018	9.25 ⁽¹⁾	135
Columbia Water Company	R-2017-2598203	PA	11.30	3/1/2018	N/A ⁽¹⁾	
Middlesex Water Company	WR17101049	NJ	10.70	3/6/2018	9.60 ⁽¹⁾	110
Indian Hills Utility Operating Company, Inc.	WR-2017-0259	MO	15.20	11/21/2017	12.00 ⁽¹⁾	220
Kaupulehu Water Company	2016-0363	HI	11.60	Ongoing		
Carolina Water Service, Inc.	2017-292-WS	SC	10.45-10.95	5/26/2018	10.50	20
Colorado Natural Gas Company	18AL-305G	CO	11.75-11.90	10/10/2018	10.30 ⁽¹⁾	152
SUEZ Water Pennsylvania, Inc.	R-2018-3000834	PA	10.40-11.50	10/10/2028	N/A ⁽¹⁾	N/A
Aqua North Carolina, Inc.	W-218, Sub 497	NC	10.80	12/18/2018	9.70	110
Arizona Water Company - Northern Group	W-01445A-18-0164	AZ	10.80-11.35	8/19/2019	9.33	174
Carolina Water Service, Inc. of North Carolina	W-354, Sub 360	NC	10.80-11.20	2/21/2019	9.75	125
Aqua New Jersey, Inc.	WR18121351	NJ	10.45	5/8/2019	9.60 ⁽¹⁾	85
Carolina Water Service, Inc. of North Carolina	W-354, Sub 364	NC	10.75	Ongoing		

Average Authorized ROE Basis Points below Mr. D'Ascendis Recommended ROE = 127 basis points

N/A: Not Applicable

⁽¹⁾ Result is a product of a settlement/stipulation.

Source: CWSNC Response to Public Staff Data Request 14.2

Note: Where Mr. D'Ascendis recommended a range for ROE, the midpoint of the range used for calculations.

D'Ascendis Proxy Companies
Approved ROEs – Last Three Years

Company	Decision Date	Approved ROE
Illinois American Water Co.	12-13-16	9.80%
Iowa American Water Co.	2-27-17	9.60%
New York American Water Co.	5-18-17	9.10%
Virginia American Water Co.	5-24-17	9.30%
California American Water Co.	3-22-18	9.20%
California Water Service Co.	3-22-18	9.20%
Golden State Water Co.	3-22-18	8.90%
New Jersey American Water Co.	10-29-18	9.60%
West Virginia American Water Co.	2-8-19	9.75%
Kentucky American Water Co.	6-27-19	9.70%
3 Year Average	=	9.42%

Mr. D'Ascendis Return on Equity Recommendations and Authorized Returns on Equity

(June 2019 through September 2022)

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Carolina Water Service, Inc.	W-354 Sub 364	NC	10.20%	6/2019	9.50%	70
Aqua North Carolina Inc.	W-218 Sub 526	NC	10.1.%	12/2019	9.40% (1)	70
Arizona Water Company	W01445A-19-0278	AR	9.73%	12/2019	9.00%	73
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Community Utilities of Pennsylvania, Inc.	R-2021-302507	PA	10.35%	1/13/2022	N/A (1)	

Middlesex Water Company	WR21050813	NJ	10.65%	Ongoing		
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The Maine Water Company	2021-00053	ME	10.25%	Ongoing		
Water Service Corporation of Kentucky	2022-00147	KY	10.60%	Ongoing		
Borough of Ambler - Bureau of Water	2022-3031704	PA	10.75%	11/10/2022	N/A (1)	

(1) Result is product of settlement/stipulation

UTILITY STOCKS AND THE SIZE EFFECT: AN EMPIRICAL ANALYSIS

Annie Wong*

I. Introduction

The objective of this study is to examine whether the firm size effect exists in the public utility industry. Public utilities are regulated by federal, municipal, and state authorities. Every state has a public service commission with board and varying powers. Often their task is to estimate a fair rate of return to a utility's stockholders in order to determine the rates charged by the utility. The legal principles underlying rate regulation are that "the return to the equity owner should be commensurate with returns on investments in other enterprises having corresponding risks," and that the return to a utility should be sufficient to "attract capital and maintain credit worthiness." However, difficulties arise from the ambiguous interpretation of the legal definition of *fair and reasonable rate of return* to an equity owner.

Some finance researchers have suggested that the Capital Asset Pricing Model (CAPM) should be used in rate regulation because the CAPM beta can serve as a risk measure, thus making risk comparisons possible. This approach is consistent with the spirit of a Supreme Court ruling that equity owners sharing similar level of risk should be compensated by similar rate of return.

The empirical studies of Banz (1981) and Reinganum (1981) showed that small firms tend to earn higher returns than large firms after adjusting for beta. This phenomenon leads to the proposition that firm size is a proxy for omitted risk factors in determining stock returns. Barry and Brown (1984) and Brauer (1986) suggested that the omitted risk factor could be the differential information environment between small and large firms. Their argument is based on the fact that investors often have less publicly available information to assess the future cash flows of small firms than that of large

firms. Therefore, an additional risk premium should be included to determine the appropriate rate of return to shareholders of small firms.

The samples used in prior studies are dominated by industrial firms, no one has examined the size effect in public utilities. The objective of this study is to extend the empirical findings of the existing studies by investigating whether the size effect is also present in the utility industry. The findings of this study have important implications for investors, public utility firms, and state regulatory agencies. If the size effect does exist in the utility industry, this would suggest that the size factor should be considered when the CAPM is being used to determine the fair rate of return for public utilities in regulatory proceedings.

II. Information Environment of Public Utilities

In general, utilities differ from industrials in that utilities are heavily regulated and they follow similar accounting procedures. A public utility's financial reporting is mainly regulated by the Securities and Exchange Commission (SEC) and the Federal Energy Regulatory Commission (FERC). Under the Public Utility Holding Company Act of 1935, the SEC is empowered to regulate the holding company systems of electric and gas utilities. The Act requires registration of public utility holding companies with the SEC. Only under strict conditions would the purchase, sale or issuance of securities by these holding companies be permitted. The purpose of the Act is to keep the SEC and investors informed of the financial conditions of these firms. Moreover, the FERC is in charge of the interstate operations of electric and gas companies. It requires utilities to follow the accounting procedures set forth in its Uniform Systems of Accounts. In particular, electric and gas utilities must request their Certified Public Accountants to certify that certain schedules in the financial reports are in conformity with the Commission's accounting requirements. These detailed reports are submitted annually and are open to the public.

*Western Connecticut State University. The author thanks Philip Perry, Robert Hagerman, Eric Press, the anonymous referee, and Clay Singleton for their helpful comments.

The FERC requires public utilities to keep accurate records of revenues, operating costs, depreciation expenses, and investment in plant and equipment. Specific financial accounting standards for these purposes are also issued by the Financial Accounting Standards Board (FASB). Uniformity is required so that utilities are not subject to different accounting regulations in each of the states in which they operate. The ultimate objective is to achieve comparability in financial reporting so that factual matters are not hidden from the public view by accounting flexibility.

Other regulatory reports tend to provide additional financial information about utilities. For example, utilities are required to file the FERC Form No. 1 with the state commission. This form is designed for state commissions to collect financial and operational information about utilities, and serves as a source for statistical reports published by state commissions.

Unlike industrials, a utility's earnings are predetermined to a certain extent. Before allowed earnings requests are approved, a utility's performance is analyzed in depth by the state commission, interest groups, and other witnesses. This process leads to the disclosure of substantial amount of information.

III. Hypothesis and Objective

Due to the Act of 1935, the Uniform Systems of Accounts, the uniform disclosure requirements, and the predetermined earnings, all utilities are reasonably homogeneous with respect to the information available to the public. Barry and Brown (1984) and Brauer (1986) suggested that the difference of risk-adjusted returns between small and large firms is due to their differential information environment. Assuming that the differential information hypothesis is true, then uniformity of information availability among utility firms would suggest that the size effect should not be observed in the public utility industry. The objective of this paper is to provide a test of the size effect in public utilities.

IV. Methodology

1. Sample and Data

To test for the size effect, a sample of public utilities and a sample of industrials matched by equity value are formed so that their results can be compared. Companies in both samples are listed on the Center for Research in Security Prices (CRSP)

Daily and Monthly Returns files. The utility sample includes 152 electric and gas companies. For each utility in the sample, two industrial firms with similar firm size (one is slightly larger and the other is slightly smaller than the utility) are selected. Thus, the industrial sample includes 304 non-regulated firms.

The size variable is defined as the natural logarithm of market value of equity at the beginning of each year. Both the equally-weighted and value-weighted CRSP indices are employed as proxies for the market returns. Daily, weekly and monthly returns are used. The Fama-MacBeth (1973) procedure is utilized to examine the relation between risk-adjusted returns and firm size.

2. Research Design

All utilities in the sample are ranked according to the equity size at the beginning of the year, and the distribution is broken down into deciles. Decile one contains the stocks with the lowest market values while decile ten contains those with the highest market values. These portfolios are denoted by MV_1 , MV_2 , ..., and MV_{10} , respectively.

The combinations of the ten portfolios are updated annually. In the year after a portfolio is formed, equally-weighted portfolio returns are computed by combining the returns of the component stocks within the portfolio. The betas for each portfolio at year t , β_{pt} 's, are estimated by regressing the previous five years of portfolio returns on market returns:

$$\tilde{R}_{pt} = \alpha_p + \beta_{pt}\tilde{R}_{mt} + \tilde{U}_{pt} \quad (1)$$

where

R_{pt} = periodic return in year t on portfolio p

R_{mt} = periodic market return in year t

U_{pt} = disturbance term.

Banz (1981) applied both the ordinary and generalized least squares regressions to estimate β ; and concluded that the results are essentially identical (p.8). Since adjusting for heteroscedasticity does not necessarily lead to more efficient estimators, the ordinary least squares procedures are used in this study to estimate β in equation (1).

The following cross-sectional regression is then run for the portfolios to estimate γ_i , $i = 0, 1$, and 2 :

$$R_{pt} = \gamma_0 + \gamma_1 \hat{\beta}_{pt} + \gamma_2 \hat{S}_{pt} + U_{pt} \quad (2)$$

where

$\hat{\beta}_{pt}$ = estimated beta for portfolio p at year t, t=1968, ..., 1987

\hat{S}_{pt} = mean of the logarithm of firm size in portfolio p at the beginning of year t

U_{pt} = disturbance term.

Depending on whether daily, weekly or monthly returns are used, a portfolio's average return changes periodically while its beta and size only change once a year. The γ_1 and γ_2 coefficients are estimated over the following four subperiods: 1968-72, 1973-77, 1978-82 and 1983-1987. If portfolio betas can fully account for the differences in returns, one would expect the average coefficient for the beta variable to be positive and for the size variable to be zero. A t-statistic will be used to test the hypothesis. The coefficients of a matched sample are also examined so that the results between industrial and utility firms can be compared.

V. Analysis of Results

1. Equity Value of the Utility Portfolios

The mean equity values of the ten size-based utility portfolios are reported in Table 1. Panels A and B present the average firm size of these portfolios at the beginning and end of the test period, 1968-1987. The first interesting observation from Table 1 is that the difference in magnitude between the smallest and the largest market value utility portfolios is tremendous. In Panel A, the average size of MV_1 is about \$31 million while that of MV_{10} is over \$1.4 billion. In Panel B, that is twenty years later, they are \$62 million and \$5.2 billion, respectively. Another interesting finding is that there is a substantial increase in average firm size from MV_9 to MV_{10} . Since these two findings are consistent over the entire test period, the average portfolio market values for interim years are not reported. These results are similar to the empirical evidence provided by Reinganum (1981).

The utility sample in this study contains 152 firms whereas Reinganum's sample contains 535 firms that are mainly industrial companies. Two conclusions may be drawn from the results of the Reinganum study and this one. First, utilities and industrials are similar in the sense that their market

values vary over a wide spectrum. Second, the fact that there is a huge jump in firm size from MV_9 to MV_{10} indicates that the distribution of firm size is positively skewed. To correct for the skewness problem, the natural logarithm of the mean equity value of each portfolio is calculated. This variable is then used in later regressions instead of the actual mean equity value.

2. Betas of the Utility and Industrial Samples

The betas based on monthly, weekly and daily returns are reported for the utility and industrial samples. For simplicity, they will be referred to as monthly, weekly, and daily betas. In all cases, five years of returns are used to estimate the systematic risk. The betas estimated over the 1963-67 time period are used to proxy for the betas in 1968, which is the beginning of the test period. By the same token, the betas obtained from the time period 1982-86 are used as proxies for the betas in 1987, which is the end of the test period.

The betas from using the equally-weighted and value-weighted indices are calculated in order to check whether the results are affected by the choice of market index. Since the results are similar, only those obtained from the equally-weighted index are reported and analyzed.

Table 2 reports the monthly, weekly and daily betas of the two samples at the beginning and end of the test period. Panel A shows the various betas of the industrial portfolios. Two conclusions may be drawn. First, in the 1960's, smaller market value portfolios tend to have relatively larger betas. This is consistent with the empirical findings by Banz (1981) and Reinganum (1981). Second, this trend seems to vanish in the 1980's, especially when weekly and daily returns are used.

The betas of the utility portfolios are presented in Panel B. The table shows that none of the utility betas are greater than 0.71. A comparison between Panels A and B reveals that utility portfolios are relatively less risky than industrial portfolios after controlling for firm size. The comparison also reveals that, unlike industrial stocks, betas of the utility portfolios are not related to the market values of equity.

The negative correlation between firm size and beta in the industrial sample may introduce a multicollinearity problem in estimating equation (2). Banz (p.11) had addressed this issue and concluded that the test results are not sensitive to the

multicollinearity problem. For the utility sample, this problem does not exist.

3. Tests on the Coefficients of Beta and Size

The beta and firm size are used to estimate γ_1 and γ_2 in equation (2). A t-statistic is used to test if the mean values of the gammas are significantly different from zero. The tests were performed for four 5-year periods which are reported in Table 3. The mean of the gammas and their t-statistic are presented in Panel A for the utilities and in Panel B for the industrial firms.

The empirical results for the utility sample are reported in Panel A of Table 3. When monthly returns are used, 60 regressions were run to obtain 60 pairs of gammas for each of the 5-year periods. When daily returns are used, over 1200 regressions were run for each period to obtain the gammas. The results are similar: in all of the time periods tested, none of the average coefficients for beta and size are significantly different from zero. When weekly returns are used, 260 pairs of gammas were obtained. The average coefficients for beta are not significant in any test period, and the average coefficients for size are not significant in three of the test periods. For the test period of 1978-82, the average coefficient for size is significantly negative at a 5% level.

The test results for the industrial sample are reported in Panel B of Table 3. When monthly returns are used, the average coefficient estimates for size and beta are significant and have the expected sign only in the 1983-87 test period. When weekly returns are used, only the size variable is significantly negative in the 1978-82 period. When daily returns are used, the coefficient estimates for betas and size are not significant at any conventional level.

According to the CAPM, beta is the sole determinant of stock returns. It is expected that the coefficient for beta is significantly positive. However, the empirical findings reported in this study and in Fama and French (1992) only provide weak support for beta in explaining stock returns. The empirical findings in this study also suggest that the size effect varies over time. It is not unusual to document the firm size effect at certain time periods but not at others. Banz (1981) found that the size effect is not stable over time with substantial differences in the magnitude of the coefficient of the size factor (p.9, Table 1). Brown, Kleidon and Marsh (1983) not only have shown that size effect is not constant over time but also have reported a reversal of the size anomaly for certain years.

The research design of this study allows us to keep the sample, test period, and methodology the same with the holding-period being the only variable. The size effect is documented for the industrial sample in one of the four test periods when monthly returns are used and in another when weekly returns are used. When daily returns are used, no size effect is observed. For the utility sample, the size effect is significant in only one test period when weekly returns are used. When monthly and daily returns are used, no size effect is found. Therefore, this study concludes that the size effect is not only time-period specific but also holding-period specific.

VI. Concluding Remarks

The fact that the two samples show different, though weak, results indicates that utility and industrial stocks do not share the same characteristics. First, given firm size, utility stocks are consistently less risky than industrial stocks. Second, industrial betas tend to decrease with firm size but utility betas do not. These findings may be attributed to the fact that all public utilities operate in an environment with regional monopolistic power and regulated financial structure. As a result, the business and financial risks are very similar among the utilities regardless of their sizes. Therefore, utility betas would not necessarily be expected to be related to firm size.

The objective of this study is to examine if the size effect exists in the utility industry. After controlling for equity values, there is some weak evidence that firm size is a missing factor from the CAPM for the industrial but not for the utility stocks. This implies that although the size phenomenon has been strongly documented for the industrials, the findings suggest that there is no need to adjust for the firm size in utility rate regulations.

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Table 1

Average Equity Size of the Utility Portfolios at the
Beginning and End of the Test Period
(Dollar figures in millions)

	A: Beginning (1968)	B: End (1987)
MV ₁	\$31	\$62
MV ₂	\$77	\$177
MV ₃	\$113	\$334
MV ₄	\$161	\$475
MV ₅	\$220	\$715
MV ₆	\$334	\$957
MV ₇	\$437	\$1,279
MV ₈	\$505	\$1,805
MV ₉	\$791	\$2,665
MV ₁₀	\$1,447	\$5,399

Table 2

Betas of the Two Samples at the Beginning and End of the Test Period

	<u>Monthly Betas</u>		<u>Weekly Betas</u>		<u>Daily Betas</u>	
	1963-67	1982-86	1963-67	1982-86	1963-67	1982-86
Panel A: Industrial Firms						
MV ₁	0.89	1.00	1.15	0.95	1.11	0.92
MV ₂	0.94	0.87	1.07	1.01	1.14	1.01
MV ₃	0.88	0.82	1.12	0.86	1.14	1.04
MV ₄	0.69	0.74	1.00	0.83	1.03	0.86
MV ₅	0.73	0.80	1.05	0.96	1.13	1.01
MV ₆	0.66	0.82	1.03	1.01	1.05	1.04
MV ₇	0.64	0.81	0.97	1.04	0.98	1.09
MV ₈	0.62	0.75	0.97	1.11	1.00	1.20
MV ₉	0.52	0.78	0.84	1.06	0.94	1.16
MV ₁₀	0.43	0.65	0.78	1.01	0.86	1.22
Panel B: Public Utilities						
MV ₁	0.30	0.37	0.31	0.43	0.30	0.40
MV ₂	0.28	0.38	0.37	0.47	0.36	0.44
MV ₃	0.22	0.42	0.33	0.42	0.31	0.49
MV ₄	0.27	0.35	0.36	0.52	0.34	0.54
MV ₅	0.25	0.45	0.37	0.61	0.35	0.62
MV ₆	0.25	0.41	0.39	0.54	0.40	0.65
MV ₇	0.20	0.35	0.34	0.54	0.37	0.63
MV ₈	0.17	0.38	0.34	0.65	0.33	0.68
MV ₉	0.19	0.34	0.35	0.60	0.34	0.71
MV ₁₀	0.18	0.29	0.38	0.59	0.39	0.71

UTILITY STOCKS AND THE SIZE EFFECT: AN EMPIRICAL ANALYSIS

Annie Wong*

I. Introduction

The objective of this study is to examine whether the firm size effect exists in the public utility industry. Public utilities are regulated by federal, municipal, and state authorities. Every state has a public service commission with board and varying powers. Often their task is to estimate a fair rate of return to a utility's stockholders in order to determine the rates charged by the utility. The legal principles underlying rate regulation are that "the return to the equity owner should be commensurate with returns on investments in other enterprises having corresponding risks," and that the return to a utility should be sufficient to "attract capital and maintain credit worthiness." However, difficulties arise from the ambiguous interpretation of the legal definition of *fair and reasonable rate of return* to an equity owner.

Some finance researchers have suggested that the Capital Asset Pricing Model (CAPM) should be used in rate regulation because the CAPM beta can serve as a risk measure, thus making risk comparisons possible. This approach is consistent with the spirit of a Supreme Court ruling that equity owners sharing similar level of risk should be compensated by similar rate of return.

The empirical studies of Banz (1981) and Reinganum (1981) showed that small firms tend to earn higher returns than large firms after adjusting for beta. This phenomenon leads to the proposition that firm size is a proxy for omitted risk factors in determining stock returns. Barry and Brown (1984) and Brauer (1986) suggested that the omitted risk factor could be the differential information environment between small and large firms. Their argument is based on the fact that investors often have less publicly available information to assess the future cash flows of small firms than that of large

firms. Therefore, an additional risk premium should be included to determine the appropriate rate of return to shareholders of small firms.

The samples used in prior studies are dominated by industrial firms, no one has examined the size effect in public utilities. The objective of this study is to extend the empirical findings of the existing studies by investigating whether the size effect is also present in the utility industry. The findings of this study have important implications for investors, public utility firms, and state regulatory agencies. If the size effect does exist in the utility industry, this would suggest that the size factor should be considered when the CAPM is being used to determine the fair rate of return for public utilities in regulatory proceedings.

II. Information Environment of Public Utilities

In general, utilities differ from industrials in that utilities are heavily regulated and they follow similar accounting procedures. A public utility's financial reporting is mainly regulated by the Securities and Exchange Commission (SEC) and the Federal Energy Regulatory Commission (FERC). Under the Public Utility Holding Company Act of 1935, the SEC is empowered to regulate the holding company systems of electric and gas utilities. The Act requires registration of public utility holding companies with the SEC. Only under strict conditions would the purchase, sale or issuance of securities by these holding companies be permitted. The purpose of the Act is to keep the SEC and investors informed of the financial conditions of these firms. Moreover, the FERC is in charge of the interstate operations of electric and gas companies. It requires utilities to follow the accounting procedures set forth in its Uniform Systems of Accounts. In particular, electric and gas utilities must request their Certified Public Accountants to certify that certain schedules in the financial reports are in conformity with the Commission's accounting requirements. These detailed reports are submitted annually and are open to the public.

*Western Connecticut State University. The author thanks Philip Perry, Robert Hagerman, Eric Press, the anonymous referee, and Clay Singleton for their helpful comments.

Table 3

Tests on the Mean Coefficients of Beta (γ_1) and Size (γ_2)

$$R_{pt} = \gamma_{\alpha} + \gamma_{1t}\hat{\beta}_{pt} + \gamma_{2t}\hat{S}_{pt} + U_{pt}$$

Returns Used:		Monthly (t-value)	Weekly (t-value)	Daily (t-value)
Panel A: Utility Sample				
1968-72	γ_1	-0.46% (-0.26)	-0.32% (-0.42)	-0.02% (-0.18)
	γ_2	-0.07% (-0.78)	-0.01% (-0.51)	-0.00% (-0.46)
1973-77	γ_1	-0.28% (-0.13)	0.14% (0.14)	-0.03% (-0.21)
	γ_2	-0.11% (-0.70)	-0.03% (-0.67)	-0.00% (-0.53)
1978-82	γ_1	0.55% (0.36)	0.54% (1.00)	0.05% (0.43)
	γ_2	-0.10% (-0.75)	-0.05% (-1.71)*	-0.01% (-1.60)
1983-87	γ_1	1.74% (1.28)	-0.24% (-0.51)	-0.02% (-0.18)
	γ_2	-0.16% (-1.54)	-0.03% (-0.86)	-0.01% (-0.63)
Panel B: Industrial Sample				
1968-72	γ_1	-0.36% (-0.27)	-0.28% (-0.55)	-0.02% (-0.32)
	γ_2	0.07% (0.43)	-0.01% (-0.19)	0.00% (0.51)
1973-77	γ_1	1.34% (0.64)	-0.23% (-0.31)	0.14% (1.45)
	γ_2	-0.01% (-0.06)	-0.04% (-0.85)	-0.00% (-0.64)
1978-82	γ_1	-0.84% (-0.28)	-0.56% (-0.91)	-0.09% (-0.81)
	γ_2	-0.29% (-0.75)	-0.01% (-1.72)*	-0.00% (-1.33)
1983-87	γ_1	2.51% (1.83)*	0.34% (0.64)	0.11% (1.40)
	γ_2	-0.25% (-1.90)*	-0.01% (-0.43)	0.00% (0.14)

* Significant at the 5% level based on a one-tailed test.

Table 3

Tests on the Mean Coefficients of Beta (γ_1) and Size (γ_2)

$$R_{pt} = \gamma_{\alpha} + \gamma_{1t}\hat{\beta}_{pt} + \gamma_{2t}\hat{S}_{pt} + U_{pt}$$

Returns Used:		Monthly (t-value)	Weekly (t-value)	Daily (t-value)
Panel A: Utility Sample				
1968-72	γ_1	-0.46% (-0.26)	-0.32% (-0.42)	-0.02% (-0.18)
	γ_2	-0.07% (-0.78)	-0.01% (-0.51)	-0.00% (-0.46)
1973-77	γ_1	-0.28% (-0.13)	0.14% (0.14)	-0.03% (-0.21)
	γ_2	-0.11% (-0.70)	-0.03% (-0.67)	-0.00% (-0.53)
1978-82	γ_1	0.55% (0.36)	0.54% (1.00)	0.05% (0.43)
	γ_2	-0.10% (-0.75)	-0.05% (-1.71)*	-0.01% (-1.60)
1983-87	γ_1	1.74% (1.28)	-0.24% (-0.51)	-0.02% (-0.18)
	γ_2	-0.16% (-1.54)	-0.03% (-0.86)	-0.01% (-0.63)
Panel B: Industrial Sample				
1968-72	γ_1	-0.36% (-0.27)	-0.28% (-0.55)	-0.02% (-0.32)
	γ_2	0.07% (0.43)	-0.01% (-0.19)	0.00% (0.51)
1973-77	γ_1	1.34% (0.64)	-0.23% (-0.31)	0.14% (1.45)
	γ_2	-0.01% (-0.06)	-0.04% (-0.85)	-0.00% (-0.64)
1978-82	γ_1	-0.84% (-0.28)	-0.56% (-0.91)	-0.09% (-0.81)
	γ_2	-0.29% (-0.75)	-0.01% (-1.72)*	-0.00% (-1.33)
1983-87	γ_1	2.51% (1.83)*	0.34% (0.64)	0.11% (1.40)
	γ_2	-0.25% (-1.90)*	-0.01% (-0.43)	0.00% (0.14)

* Significant at the 5% level based on a one-tailed test.

Water utility rate case data, Jan. 1, 2021 - Nov. 3, 2022

State	Company	Docket No.	(Water or WW)	Case type	Increase authorized		
					Order date	Decision type	Return on equity (%)
Pennsylvania	Pennsylvania American Water Co.	R-2020-3019369 R-2020-3019371	Water/WW	Base rate case	02/25/21	Settled	NA
Missouri	Missouri American Water Co.	WR-2020-0344 SR-2020-0345	Water/WW	Base rate case	04/07/21	Settled	NA
Idaho	Veolia Water Idaho	SUZ-W-20-02	Water	Base rate case	04/30/21	Settled	NA
New Jersey	Veolia Water New Jersey	D-WR20110729	Water/WW	Base rate case	05/19/21	Settled	9.60
Iowa	Iowa American Water	RPU-2020-0001	Water	Base rate case	06/28/21	Litigated	9.60
Virginia	Aqua Virginia Inc.	PUR-2020-00106	Water/WW	Base rate case	06/22/21	Settled	NA
Connecticut	Connecticut Water Co.	20-12-30	Water	Base rate case	07/28/21	Litigated	9.00
California	California American Water	A-19-07-004	Water	Base rate case	12/30/21	Settled	NA
Illinois	Utility Services of Illinois Inc.	21-0198	Water	Base rate case	12/31/21	Litigated	9.52
New Jersey	Middlesex Water Co.	D-WR 21050813	Water/WW	Base rate case	09/30/21	Settled	9.60
West Virginia	West Virginia American Water Co.	C-21-0369-W-42T C-21-0370-S-42T	Water/WW	Base rate case	02/24/22	Litigated	9.80
Maine	The Maine Water Co. (Biddeford & Saco)	D-2021-00289	Water	Base rate case	04/07/22	Settled	9.70
North Carolina	Carolina Water Service Inc. of North Carolina	W-354 Sub 384	Water/WW	Base rate case	04/08/22	Settled	9.40
Pennsylvania	Aqua	D-R-2021-3027385 D-R-2021-3027386	Water/WW	Base rate case	05/16/22	Litigated	10.00
New Hampsh.	Aquarion Water Co. of New Hampshire Inc.	D-DW-20-184	Water	Base rate case	07/29/22	Settled	9.10
New Jersey	New Jersey-American Water Co. Inc.	D-WR22010019	Water/WW	Base rate case	08/17/22	Settled	9.60
Ohio	Aqua Ohio Inc.	C-21-0595-WW-AIR	Water	Base rate case	09/21/22	Settled	9.50

As of Nov. 3, 2022.

W = water; WW = wastewater.

Source: Regulatory Research Associates, a group within S&P Global Commodity Insights.

2022 Average 9.59

2021 Average 9.46

**STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH**

DOCKET NO. W-354, SUB 360

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of
Application by Carolina Water Service, Inc., of) ORDER APPROVING JOINT
North Carolina, 4944 Parkway Plaza Boulevard,) PARTIAL SETTLEMENT
Suite 375, Charlotte, North Carolina 28217, for) AGREEMENT AND STIPULATION,
Authority to Adjust and Increase Rates for) GRANTING PARTIAL RATE
Water and Sewer Utility Service in All of its) INCREASE, AND REQUIRING
Service Areas in North Carolina, Except Corolla) CUSTOMER NOTICE
Light and Monteray Shores Service Area)

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

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

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

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

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

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

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

that these results are unreasonably high. Each of these results are higher than witness D'Ascendis' estimates of the cost of equity for his own Utility Proxy Group and deserve no weight, particularly with respect to the DCF. The Commission further concludes that given the difference in these results, the risk of the two groups is not equal and the Utility Proxy Group is more reliable as a proxy for the investment risk of common equity in CWSNC.

After determining that the indicated cost of equity from the DCF, CAPM, and risk premium methods applied to both of his proxy groups equals 10.80%, witness D'Ascendis then adjusted the indicated cost of equity upward by 0.40% to reflect CWSNC's smaller size compared to companies in his Utility Proxy Group. He testified that the size of the company is a significant element of business risk for which investors expect to be compensated through higher returns. Witness D'Ascendis calculated his size adjustment as described in his prefiled direct testimony and stated that even though a 4.61% upward size adjustment is indicated, he applies a 0.40% size premium to CWSNC's indicated common equity cost rate. Witness Hinton testified that he does not believe it is appropriate to add a risk premium to the cost of equity of CWSNC due to size for several reasons. First, from a regulatory policy perspective, witness Hinton stated that ratepayers should not be required to pay higher rates because they are located in the franchise area of a utility which is arbitrarily considered to be small. Further, if such adjustments were routinely allowed, an incentive would exist for large utilities to form subsidiaries or split-up subsidiaries to obtain higher returns. In addition, he noted that CWSNC operates in a franchise environment that insulates the Company from competition with procedures in place for rate adjustments for circumstances that impact its earnings. Finally, while witness Hinton stated that while there are studies that address how the small size of a company relates to higher returns, he is aware of only one study that focuses on the size of regulated utilities and risk and that study concluded that utility stocks do not exhibit a significant size premium. In rebuttal, witness D'Ascendis maintained that a small size adjustment was necessary based on the results of studies he cited and discussed and contended that the study concerning size premiums for utilities discussed by witness Hinton was flawed.

Based upon the foregoing and the entire record in this proceeding, the Commission concludes that a size adjustment of 0.40% is not warranted and should not be approved. The Commission determines there is insufficient evidence to authorize an adjustment to the approved rate of return on equity in this case. The record simply does not indicate the extent to which CWSNC's size alone justifies added risk. While a small water/wastewater utility might face greater risk than a publicly-traded peer group, because for example the service area was confined to a hurricane prone coastal geographic area, evidence of such factual predicates is absent from the record. The Commission notes that the witnesses also disagreed with respect to whether the studies discussed in the testimony concerning size and risk are reliable or even applicable to regulated utilities. The Commission concludes that the testimony regarding these studies is not convincing and does not support a size adjustment. In addition, while witness D'Ascendis calculates and testifies that a 4.61% upward size adjustment is indicated, he applies a size premium of 0.40% to

CWSNC's indicated cost of equity. The Commission thus concludes that the 0.40% adjustment is not supported by his testimony and is rather arbitrary.

Having determined that the appropriate rate of return on equity based upon the evidence in this proceeding is 9.75%, the Commission notes that there is considerable testimony concerning the authorized returns on equity for water utilities in other jurisdictions. While the Commission has relied upon the record in this proceeding and is certainly aware that returns in other jurisdictions can be influenced by many factors, such as different capital market conditions during different periods of time, settlements versus full litigation, the Commission concludes that the rate of return on equity trends and decisions by other regulatory authorities deserve some weight as (1) they provide a check or additional perspective on the case-specific circumstances, and (2) the Company must compete with other regulated utilities in the capital markets, meaning that a rate of return significantly lower than that approved for other utilities of comparable risk would undermine the Company's ability to raise necessary capital, while a rate of return significantly higher than other utilities of comparable risk would result in customers paying more than necessary. Public Staff D'Ascendis Cross-Examination Exhibit 3, the RRA Water Advisory publication showing approved return on equity decisions for water utilities across the country from January 2014 through June 30, 2018, is helpful in illustrating that the average rate of return on equity for water utilities is 9.59% in 2014, 9.76% in 2015, 9.71% in 2016, 9.56% in 2017, and in the only seven cases reported on for the first six months of 2018 the average is 9.41% with a range of 8.9% to 10.5%. This authorized return data is generally supportive of the Commission approved return on equity of 9.75% based upon the evidence in this proceeding. To the extent it is not, the record evidence justifies any such difference.

In its post-hearing brief, the AGO notes that the 10.80% to 11.20% range for rate of return on equity requested by CWSNC is substantially higher than the 9.6% return on equity stipulated to in the Sub 356 Proceeding. In this case, the AGO, in its role as consumer advocate, argues that the DCF model is relied upon by investors using widely available current market data and the DCF results produced by expert witnesses for CWSNC and the Public Staff show that a 9.2% return on equity is more than sufficient to attract the investment dollars needed for adequate service. However, unlike the AGO, the Commission cannot ignore the other evidence in this proceeding. When other such evidence is considered and weighed by the Commission as discussed hereinabove, the Commission finds that the reasonable and appropriate return on equity is 9.75%.

The Commission notes further that its approval of a rate of return on equity at the level of 9.75% or for that matter at any level, is not a guarantee to the Company that it will earn a rate of return on equity at that level. Rather, as North Carolina law requires, setting the rate of return on equity at this level merely affords CWSNC the opportunity to achieve such a return. The Commission finds, based upon all the evidence presented, that the rate of return on equity provided for herein will indeed afford the Company the opportunity to earn a reasonable and sufficient return for its shareholders while at the same time producing rates that are just and reasonable to its customers.

11. That, within 180 days of the date of this Order, CWSNC shall file a report with the Commission on the progress of the capital project intended to resolve the quality of service concern identified by Ms. Brown, one of the public witnesses appearing at the public hearing in Asheville, as is discussed in more detail in this Order. Such report shall state whether Ms. Brown has indicated to CWSNC that the final resolution of the issue is satisfactory;

12. That the two certificate of deposit bond sureties previously filed by Utilities, Inc. (as noted above) from BB&T for Amherst Subdivision in Wake County and for the Carolina Pines Service Area in Craven County, North Carolina shall be released to Utilities, Inc. The Chief Clerk shall file a copy of the letter to Utilities, Inc. from the Deputy Clerk releasing the bond sureties in Docket Nos. W-354, Sub 326, W-1152, Sub 8, W-1151, Sub 7, and this docket;

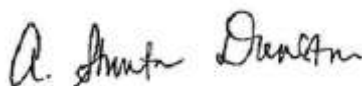
13. That the Chief Clerk shall establish Docket No. W-354, Sub 360A as the single docket to be used for all future WSIC/SSIC filings, orders, and reporting requirements. To that end, the Chief Clerk shall copy CWSNC's WSIC/SSIC pending application filed on January 31, 2019, in Docket No. W-354, Sub 356A and Sub 360 into Docket No. W-354, Sub 360A; and

14. That the Chief Clerk shall close Docket No. W-354, Subs 356A, 344A, and 336A.

ISSUED BY ORDER OF THE COMMISSION.

This the 21st day of February, 2019.

NORTH CAROLINA UTILITIES COMMISSION



A. Shonta Dunston, Deputy Clerk

Commissioner Daniel G. Clodfelter concurring in part and dissenting in part.

RATING ACTION COMMENTARY

Fitch Affirms PE and PSE; Outlooks Revised to Stable

Tue 01 Jun, 2021 - 12:47 PM ET

Fitch Ratings - New York - 01 Jun 2021: Fitch Ratings has affirmed Puget Energy Inc.'s (PE) Long-Term Issuer Default Rating (LT IDR) at 'BBB-' and Puget Sound Energy, Inc.'s (PSE) LT IDR at 'BBB+'. The Rating Outlook for both entities has been revised to Stable from Negative.

PE and PSE's Rating Outlooks improved as a result of the Senate Bill 5295, which was signed into law in May 2021. The legislation allows for multi-year rate plans, reducing regulatory lag. Certain rate adjustments and mitigating actions after the July 2020 rate order are expected to stabilize FFO leverage at around 5.5x in the next two years. FFO leverage could further improve to below 5.5x assuming Washington Utilities and Transportation Commission (WUTC) implements the legislation in a credit-supportive manner in the next rate case.

KEY RATING DRIVERS

New Legislation Reduces Regulatory Lag

On May 3, 2021, Washington Governor Jay Inslee signed into law the Senate Bill 5295 to transform utility regulation into multi-year rate plan and performance-based rate-making. Fitch believes that the legislation is largely positive, but it is subject to interpretation and implementation by the WUTC.

Under the law, beginning Jan. 1, 2022, utilities will file multi-year rate plans between two to four years in length, which would reduce regulatory lag and provide greater certainties on earnings and cash flow going forward. Rates after the first year can be based on forecast data. This is an improvement from the historic test year.

If the commission approves a multiyear rate plan with a duration of three or four years, utilities are bound by rates of the first and second year, but can file a new rate plan in year three and four. Utilities must also defer refund for earnings exceeding 0.5% above the authorized returns. The commission must, in approving a multiyear rate plan, determine a set of performance measures that will be used to assess a gas or electrical company operating under a multiyear rate plan. Fitch expects PSE to file a multi-year rate case in early 2022 with an order to follow 11-month later.

Favorable Rate Adjustments

PSE received an unfavorable rate order in July 2020. Since then, PSE has secured some positive rate adjustments. WUTC increased the revenue requirement for the rate order to \$27.8 million from \$2.2 million, primary due to errors related to EDIT and power costs. New rates took effect on Oct. 1, 2020.

Puget began to recover certain deferred power and gas costs totaling \$124 million in late 2020 and secured revenue decoupling revenue of \$36.4 million in 2021.

In April 2021, a settlement was reached for the 2020 power cost only rate case (PCORC). The settlement would result a revenue increase of \$65.3 million or 3.1%. Pending approval by the Washington Commission, the increase is expected to be effective June 2021.

Credit Metrics Expected to Improve

PSE's and PE's credit metrics in 2019 and 2020 have been negatively affected by mixed rate case outcomes, fuel cost deferral and cash recoveries and refunds due to tax reform. In the next two years, FFO leverage could decline to mid-5x. Assuming a reasonable rate case outcome, Fitch expects FFO leverage to improve to low 5x by 2023.

Parent-Subsidiary Linkage

Fitch applies a bottom-up approach in rating PSE and PE. PSE's ratings reflect its standalone credit profile, as well as its linkage with PE, while PE's ratings reflect a

consolidated credit profile. Fitch typically limits PSE's IDR to a maximum of two notches above PE's IDR. Currently, the notching differential is two notches.

Fitch generally considers PSE to be stronger than PE due to its lower leverage and lower operating risks as a regulated utility. A high level of parent-only debt (approximately 30%) results in weaker credit metrics at PE. While operational and strategic ties are strong, a prescribed regulatory capital structure provides reasonable protection, allowing PSE to be notched above PE.

The notching differential also reflects the ring-fencing measures in place as conditions to receive Washington commission's approval of PE's 2009 buyout by a consortium of investors. They include a non-consolidation opinion and a requirement that at least one of PSE's directors is an independent director. Without the unanimous vote of all directors, including the independent director, PSE will not consent to the institution of bankruptcy proceedings or the inclusion of PSE in any bankruptcy proceeding by PE or its affiliates.

PSE is prohibited from lending or pledging utility assets to PE or upstream owners without the permission of the commission and there will be no cross-subsidization by PSE customers for unregulated activities. PSE is prohibited from making upstream distributions if the common equity ratio is less than 44%. Dividends are also restricted if PSE's issuer rating is below investment grade. If PSE is downgraded below investment grade, while its EBITDA interest coverage is equal to or greater than 3.0x on an annualized basis, PSE is allowed to distribute dividends only up to an amount sufficient to service debt at PE, and to satisfy financial covenants in PE's credit facilities. Under this scenario, PE is prohibited from distributing to its equity owners.

PE's ability to pay upstream dividends is limited by the merger order issued by WUTC. Pursuant to the merger order, PE may not declare or make a distribution unless on such date PE's ratio of consolidated EBITDA to consolidated interest expense for the four most recently ended fiscal quarters prior to such date is equal to or greater than 2x.

DERIVATION SUMMARY

PE's peers include Cleco Corporate Holdings, LLC (Cleco; BBB-/Stable), IPALCO Enterprises, Inc. (BBB-/Stable) and DPL Inc. (BB/Negative), all of which are holding companies operating one primary utility. All four companies have sizable parent-only debt.

PE has approximately 30% parent-only debt, which is similar to IPALCO and lower than both Cleco's and DPL's 60%.

PSE operates an electric and gas utility with a larger customer base and higher gross revenue than Cleco Power LLC (BBB/Stable), Dayton Power & Light Company (BBB-/Negative) and Indianapolis Power & Light Co. (BBB+/Stable). However, PSE's service territory is less favorable than its peers, as it is subject to restrictive regulation and progressive energy goals in Washington, a primary credit concern.

PE's credit metrics weakened in recent years due to capex, mixed rate case results, fuel cost deferrals and tax reform. PE's FFO leverage is likely to hover around 5.5x in the next two years, modestly stronger than that of Cleco and DPL but weaker than IPALCO. Similar to Cleco Power, DP&L and IPL, PSE's standalone credit metrics remain consistent with its current rating, but it is upward-restricted by PE's ownership.

KEY ASSUMPTIONS

- \$3.1 billion capex from 2021 to 2023;
- PCORC implemented per settlement in April 2021;
- Certain assumptions were made regarding future rate cases;
- Certain management mitigation actions were assumed.

RATING SENSITIVITIES

PE

Factors that could, individually or collectively, lead to positive rating action/upgrade:

- Given the uncertainty of implementing a multi-year rate plan, an upgrade is unlikely in the near to intermediate term. Nevertheless, if PE's FFO leverage declines to below 4.2x, and/or there is a track record of constructive rate case proceedings, PE could be upgraded.

Factors that could, individually or collectively, lead to negative rating action/downgrade:

--PE will be downgraded if the 2022 rate case is unfavorable, causing FFO leverage to exceed 5.5x on a sustained basis;

--A downgrade at PSE could lead to the same at PE.

PSE

Factors that could, individually or collectively, lead to positive rating action/upgrade:

--Given the uncertainty of implementing a multi-year rate plan, an upgrade is unlikely in the near to intermediate term. Nevertheless, if PE is upgraded, PSE could be upgraded.

Factors that could, individually or collectively, lead to negative rating action/downgrade:

--A downgrade at PE could lead to a downgrade at PSE;

--FFO leverage sustained above 4.8x.

BEST/WORST CASE RATING SCENARIO

International scale credit ratings of Non-Financial Corporate issuers have a best-case rating upgrade scenario (defined as the 99th percentile of rating transitions, measured in a positive direction) of three notches over a three-year rating horizon; and a worst-case rating downgrade scenario (defined as the 99th percentile of rating transitions, measured in a negative direction) of four notches over three years. The complete span of best- and worst-case scenario credit ratings for all rating categories ranges from 'AAA' to 'D'. Best- and worst-case scenario credit ratings are based on historical performance. For more information about the methodology used to determine sector-specific best- and worst-case scenario credit ratings, visit <https://www.fitchratings.com/site/re/10111579>.

ISSUER PROFILE

PE is an energy services holding company and substantially all of its operations are conducted through its regulated and integrated utility PSE. PSE provides electric and natural gas service principally in the Puget Sound region. PE also has a wholly-owned nonregulated subsidiary, named Puget LNG LLC, which owns, develops and finances the

non-regulated activity of a liquefied natural gas (LNG) facility at the Port of Tacoma, Washington.

REFERENCES FOR SUBSTANTIALLY MATERIAL SOURCE CITED AS KEY DRIVER OF RATING

The principal sources of information used in the analysis are described in the Applicable Criteria.

ESG CONSIDERATIONS

Unless otherwise disclosed in this section, the highest level of ESG credit relevance is a score of '3'. This means ESG issues are credit-neutral or have only a minimal credit impact on the entity, either due to their nature or the way in which they are being managed by the entity. For more information on Fitch's ESG Relevance Scores, visit www.fitchratings.com/esg.

RATING ACTIONS

ENTITY / DEBT ⚡	RATING ⚡			PRIOR ⚡
Puget Sound Energy, Inc.	LT IDR	BBB+ Rating Outlook Stable		BBB+ Rating Outlook Negative
	Affirmed			
	ST IDR	F2	Affirmed	F2
senior secured	LT	A	Affirmed	A
senior unsecured	ST	F2	Affirmed	F2

Puget Energy Inc.

LT IDR

BBB- Rating Outlook Stable

BBB- Rating
Outlook
Negative

Affirmed

senior secured

LT

BBB

Affirmed

BBB

[VIEW ADDITIONAL RATING DETAILS](#)

FITCH RATINGS ANALYSTS

Julie Jiang

Director

Primary Rating Analyst

+1 212 908 0708

Fitch Ratings, Inc.

33 Whitehall Street New York, NY 10004

Barbara Chapman, CFA

Senior Director

Secondary Rating Analyst

+1 646 582 4886

Shalini Mahajan, CFA

Managing Director

Committee Chairperson

+1 212 908 0351

MEDIA CONTACTS

Elizabeth Fogerty

New York

+1 212 908 0526

elizabeth.fogerty@thefitchgroup.com

Additional information is available on www.fitchratings.com

PARTICIPATION STATUS

The rated entity (and/or its agents) or, in the case of structured finance, one or more of the transaction parties participated in the rating process except that the following issuer(s), if any, did not participate in the rating process, or provide additional information, beyond the issuer's available public disclosure.

APPLICABLE CRITERIA

[Parent and Subsidiary Linkage Rating Criteria - Effective from 26 August 2020 to 1 December 2021 \(pub. 26 Aug 2020\)](#)

[Corporate Hybrids Treatment and Notching Criteria \(pub. 12 Nov 2020\)](#)

[Corporate Rating Criteria -- Effective from 21 December 2020 to 15 October 2021 \(pub. 21 Dec 2020\) \(including rating assumption sensitivity\)](#)

[Corporates Recovery Ratings and Instrument Ratings Criteria \(pub. 09 Apr 2021\) \(including rating assumption sensitivity\)](#)

[Sector Navigators - Addendum to the Corporate Rating Criteria - Effective from 30 April 2021 to 15 October 2021 \(pub. 30 Apr 2021\)](#)

APPLICABLE MODELS

Numbers in parentheses accompanying applicable model(s) contain hyperlinks to criteria providing description of model(s).

Corporate Monitoring & Forecasting Model (COMFORT Model), v7.9.0 ([1](#))

ADDITIONAL DISCLOSURES

[Dodd-Frank Rating Information Disclosure Form](#)

[Solicitation Status](#)

[Endorsement Policy](#)

ENDORSEMENT STATUS

Puget Energy Inc.

EU Endorsed, UK Endorsed

Puget Sound Energy, Inc.

EU Endorsed, UK Endorsed

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CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400

Change from 9.25% to 10.45% on ROE for Base Year and from 9.25% to 10.7% for Rate Years

CWSNC - Water					Revenue Requirement Change				Sum
	Base Year*	Rate Year 1	Rate Year 2	Rate Year 3	Base Year	Rate Year 1	Rate Year 2	Rate Year 3	
Amount Change	426,269	585,754	638,962	655,404	554,192	761,538	830,714	852,090	\$ 2,998,534.79
9.25%	4,934,072	5,611,119	6,120,811	6,278,316	6,414,784	7,295,012	7,957,662	8,162,434	
10.45%/10.7%	5,360,341	6,196,873	6,759,773	6,933,720	6,968,976	8,056,550	8,788,376	9,014,525	
CWSNC - Sewer					Revenue Requirement Change				
	Base Year*	Rate Year 1	Rate Year 2	Rate Year 3	Base Year	Rate Year 1	Rate Year 2	Rate Year 3	
Amount Change	400,992	592,329	614,227	735,555	521,329	770,087	798,556	956,295	\$ 3,046,266.63
9.25%	4,641,482	5,674,095	5,883,870	7,046,109	6,034,388	7,376,887	7,649,615	9,160,642	
10.45%/10.7%	5,042,474	6,266,424	6,498,097	7,781,664	6,555,717	8,146,974	8,448,172	10,116,936	
BF/FH/TC - Water					Revenue Requirement Change				
	Base Year*	Rate Year 1	Rate Year 2	Rate Year 3	Base Year	Rate Year 1	Rate Year 2	Rate Year 3	
Amount Change	21,582	42,726	49,459	49,468	28,059	55,548	64,302	64,313	\$ 212,221.71
9.25%	249,811	409,285	473,784	473,873	324,779	532,111	615,966	616,082	
10.45%/10.7%	271,393	452,011	523,243	523,341	352,838	587,659	680,268	680,395	
BF/FH - Sewer					Revenue Requirement Change				
	Base Year*	Rate Year 1	Rate Year 2	Rate Year 3	Base Year	Rate Year 1	Rate Year 2	Rate Year 3	
Amount Change	58,676	78,504	124,664	126,638	76,285	102,063	162,076	164,642	\$ 505,065.19
9.25%	679,167	752,009	1,194,192	1,213,100	882,985	977,686	1,552,568	1,577,150	
10.45%/10.7%	737,843	830,513	1,318,856	1,339,738	959,269	1,079,749	1,714,644	1,741,792	

* CWSNC proposed a 10.45% ROE for Base year and 10.7% for Rate Years.

TOTAL REVENUE REQUIREMENT CHANGE \$ 6,762,088.32

B8 | Tuesday, November 22, 2022

MARKETS DIGEST

EQUITIES

Dow Jones Industrial Average

33700.28 ▼45.41, or 0.13%

High, low, open and close for each trading day of the past three months.

	Last	Year ago
Trailing P/E ratio	20.95	22.11
P/E estimate*	18.36	18.53
Dividend yield	2.01	1.91
All-time high	36799.65, 01/04/22	

S&P 500 Index

3949.94 ▼15.40, or 0.39%

High, low, open and close for each trading day of the past three months.

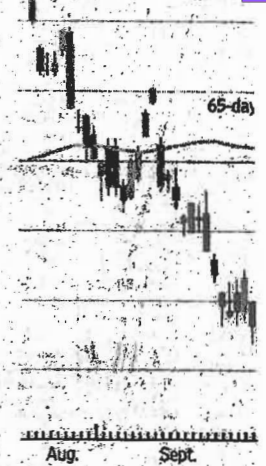
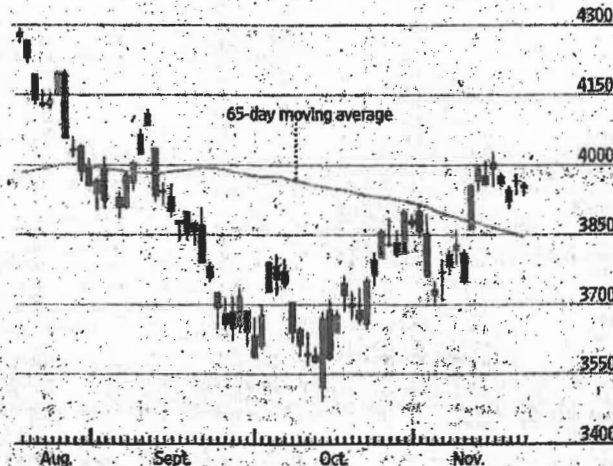
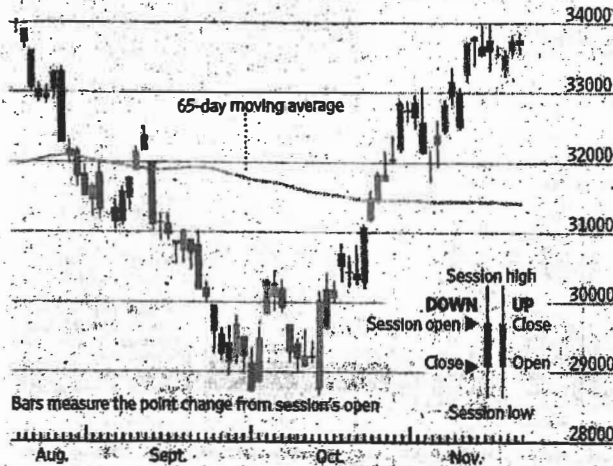
	Last	Year ago
Trailing P/E ratio*	19.22	28.90
P/E estimate*	17.75	22.43
Dividend yield*	1.68	1.28
All-time high	4796.56, 01/03/22	

Nasdaq Composite

11024.51 ▼121.55, or 1.1%

High, low, open and close for each trading day of the past three months.

Current divisor 015172752695384



*Weekly P/E data based on as-reported earnings from Bionity Associates Inc. *Based on Nasdaq-100 Index

Major U.S. Stock-Market Indexes

	High	Low	Latest Close	Net chg	% chg	High	Low	% chg	YTD	3-yr. ann.
Dow Jones										
Industrial Average	33864.59	33559.18	33700.28	-45.41	-0.13	36799.65	28725.51	-5.4	-7.3	6.7
Transportation Avg	14325.50	14179.35	14295.40	40.69	0.29	16874.53	11999.40	-14.6	-13.2	10.2
Utility Average	949.45	938.32	945.37	6.04	0.64	1071.75	838.99	2.4	-3.6	2.4
Total Stock Market	39795.09	39500.75	39668.06	-179.39	-0.45	48929.18	36056.21	-17.3	-18.4	7.7
Barron's 400	961.19	948.97	958.31	-2.87	-0.30	1114.47	825.73	-14.4	-13.4	10.9
Nasdaq Stock Market										
Nasdaq Composite	11128.78	10999.75	11024.51	-121.55	-1.09	15871.26	10321.39	-30.3	-29.5	9.8
Nasdaq-100	11664.94	11524.44	11553.45	-123.57	-1.06	16567.50	10690.60	-39.3	-29.2	11.0
S&P										
500 Index	3962.00	3933.34	3949.94	-15.40	-0.39	4796.56	3577.03	-15.7	-17.1	6.4
MidCap 400	2510.17	2492.71	2504.48	-6.15	-0.24	2875.24	2200.75	-12.9	-11.9	4.1
SmallCap 600	1215.32	1206.30	1214.15	-3.99	-0.33	1433.01	1064.45	-15.3	-13.4	4.8

Other Indexes

Russell 2000	1842.96	1828.99	1839.14	-10.59	-0.57	2331.46	1649.84	-21.1	-18.1	5.1
NYSE Composite	15309.77	15180.19	15278.26	-31.51	-0.21	17353.76	13472.18	-9.8	-11.0	4.3
Value Line	554.75	549.40	552.30	-2.45	-0.44	680.36	491.56	-18.3	-17.8	1.9
NYSE Arca Biotech	5187.15	5143.96	5149.42	-35.15	-0.68	5649.54	4208.43	-4.9	-6.7	2.4
NYSE Arca Pharma	836.32	826.45	833.33	4.33	0.52	887.27	737.84	7.7	0.8	10.7
KBW Bank	106.46	105.52	106.22	0.35	0.34	147.56	94.66	-23.4	-19.7	0.6
PHLX Gold/Silver	113.19	111.17	113.04	-0.76	-0.67	167.76	91.40	-14.4	-14.7	6.4
PHLX Oil Service	83.18	78.91	83.06	-1.95	-2.29	88.37	49.14	57.3	57.6	7.3
PHLX Semiconductor	2696.70	2669.35	2675.43	-48.20	-1.77	4039.51	2162.32	-39.4	-32.2	14.9
Chos Volatility	24.12	22.30	22.38	-0.76	-3.29	36.45	16.60	-14.6	-29.8	19.4

*Nasdaq PHLX

Source: FactSet, Dow Jones Market Data

Late Trading

Most active and biggest movers among NYSE, NYSE Arca, NYSE Amex and Nasdaq issues from 4 p.m. to 6 p.m. ET as reported by electronic trading services, securities dealers and regional exchanges. Minimum share price of \$2 and minimum after-hours volume of 50,000 shares.

Most active issues in late trading

Company	Symbol	Volume (000)	Last	Net chg	% chg	After Hours	High
Invesco Senior Loan ETF	BKLN	6,514.7	20.73	0.03	0.14	20.78	
SPDR S&P 500	SPY	6,390.2	394.57	-0.02	-0.01	400.00	
KE Holdings ADR	BEKE	4,940.3	14.86	0.15	1.02	14.86	
iShares iBoxx \$ HY Cn Bd	HYG	4,676.2	74.17	-0.03	-0.04	74.29	
Bank of America	BAC	3,913.7	37.28	-0.03	-0.08	37.37	
CSX	CSX	3,680.4	31.29	...	...	31.32	
Infosys ADR	INFY	3,091.4	19.12	-0.18	-0.93	19.38	
iShares MSCI EAFE ETF	EFA	3,089.7	64.48	-0.18	-0.28	64.67	

Percentage gainers...

Harsco	HSC	320.6	6.93	0.33	5.08	6.93	
Simmons First Natl CIA	SFNC	63.3	24.76	1.17	4.96	24.76	
Agilent Technologies	A	104.4	151.30	6.16	4.24	152.40	
Newell Brands	NWL	153.1	13.55	0.50	3.83	13.55	
Ardagh Metal Packaging	AMBP	281.9	4.54	0.16	3.65	4.54	

And losers

scPharmaceuticals	SCPH	51.0	5.40	-0.69	-11.33	6.09	
Gallagher	AUG	81.6	175.37	-20.38	-10.41	195.75	
Ampco-Pittsburgh	AP	1,776.6	2.50	-0.25	-9.99	2.50	
Gaming Leisure Prod	GLPI	68.7	46.41	-4.09	-8.80	50.50	
FirstEnergy	FE	145.0	36.41	-2.20	-5.99	38.80	

Docket No. W-354, Sub 400
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D'Ascendis Proposed Cross Exhibit No. 9

Exhibit 7
Schedule DWD-5
Page 5 of 5

Carolina Water Service of North Carolina
Notes to Accompany the Application of the CAPM and ECAPM

Notes:

- (1) The market risk premium (MRP) is derived by using six different measures from three sources: Ibbotson, Value Line, and Bloomberg as illustrated below:

	Using Current Interest Rates	Using Projected 2023 Interest Rates	Using Projected 2024 Interest Rates	Using Projected 2025 Interest Rates
<u>Historical Data MRP Estimates:</u>				
<u>Measure 1: Ibbotson Arithmetic Mean MRP (1926-2021)</u>				
Arithmetic Mean Monthly Returns for Large Stocks 1926-2021:	12.37 %	12.37 %	12.37 %	12.37 %
Arithmetic Mean Income Returns on Long-Term Government Bonds:	5.02	5.02	5.02	5.02
MRP based on Ibbotson Historical Data:	7.35 %	7.35 %	7.35 %	7.35 %
<u>Measure 2: Application of a Regression Analysis to Ibbotson Historical Data (1926-2021)</u>	10.27 %	9.34 %	9.38 %	9.05 %
<u>Measure 3: Application of the PRPM to Ibbotson Historical Data: (January 1926 - April 2022)</u>	9.35 %	9.35 %	9.35 %	9.35 %
<u>Value Line MRP Estimates:</u>				
<u>Measure 4: Value Line Projected MRP (Thirteen weeks ending May 13, 2022)</u>				
Total projected return on the market 3-5 years hence*:	13.16 %	13.16 %	13.16 %	13.16 %
Projected Risk-Free Rate (see note 2):	2.49	3.33	3.30	3.60
MRP based on Value Line Summary & Index:	10.67 %	9.83 %	9.86 %	9.56 %
*Forecasted 3-5 year capital appreciation plus expected dividend yield				
<u>Measure 5: Value Line Projected Return on the Market based on the S&P 500</u>				
Total return on the Market based on the S&P 500:	16.42 %	16.42 %	16.42 %	16.42 %
Projected Risk-Free Rate (see note 2):	2.49	3.33	3.30	3.60
MRP based on Value Line data	13.93 %	13.09 %	13.12 %	12.82 %
<u>Measure 6: Bloomberg Projected MRP</u>				
Total return on the Market based on the S&P 500:	13.93 %	13.93 %	13.93 %	13.93 %
Projected Risk-Free Rate (see note 2):	2.49	3.33	3.30	3.60
MRP based on Bloomberg data	11.44 %	10.60 %	10.63 %	10.33 %
<u>Average of Value Line, Ibbotson, and Bloomberg MRP:</u>	10.50 %	9.93 %	9.95 %	9.74 %

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(<https://www.linkedin.com/in/carolina-water-north-carolina-b19384163>)

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Carolina Water Service
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Dec 05 2022

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About Carolina Water Service of North Carolina

Carolina Water Service of North Carolina is a private water and wastewater utility provider. We take great pride in delivering safe and reliable utility services to residential and commercial customers in 38 counties across North Carolina.

But our commitment goes beyond providing essential utility services. We care about the health and wellbeing of our customers, employees, and our environment. And we actively contribute to the communities where we live and work. This commitment is expressed in our Company Purpose.

"We help people enjoy a better life and communities thrive."

You can learn more about us and the work we do in your community by following our [News \(/carolinawater/news\)](#) page.

Your Utility at a Glance

Carolina Water Service has been providing utility services for over 50 years, and all our activities are regulated by the [North Carolina Utilities Commission](#) (<https://www.ncuc.net/index.html>) and [North Carolina Department of Environmental Quality](#) (<https://deq.nc.gov/>). We employ utility professional who are a part of the community, and our head office is located in Charlotte.

Drinking Water Infrastructure



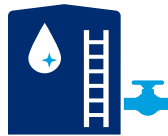
Production Capacity
11,850,480 MGD



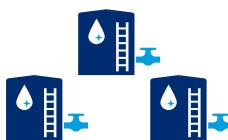
Distribution Mains
516 miles



Potable Wells
284 Wells

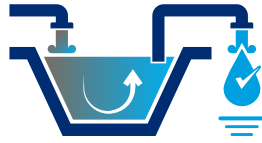


Storage Capacity
8,383,115 MG

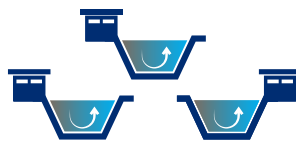


Storage Tanks
229 Tanks

Wastewater Infrastructure



Treatment Capacity
6,858,694 MGD



Treatment Plants
24 Plants



Collection Mains
63.9 miles

Investing in Your Utility

We're committed (and obligated by regulators) to invest in older systems to bring them up to modern standards, and maintaining all systems in optimal operating condition through upgrade and replacement programs. To that end, Carolina Water Service of North Carolina has invested over \$20 million in capital improvements since its last rate case.

Even the smallest utility systems require significant investments. But unlike other public infrastructure – roads, bridges, airports, transit, etc. – most water and wastewater infrastructure is never seen, yet we rely on it 24/7. Learn more about [how utility systems work \(/carolinawater/water-smart/utility-systems\)](https://carolinawater.com/water-smart/utility-systems).

Our Service Areas

We provide utility services to these North Carolina communities.

- Abington
- Amber Acres
- Amber Acres North
- Amber Ridge
- Amherst
- Ashley Hills
- Bahia Bay
- Bear Paw
- Beechbrook
- Belvedere Plantation
- Bent Creek
- Blue Ridge Manor - Ashe Lake - Beaver Creek
- Blue Ridge Manor - Ashe Lake - Holiday Ln
- Blue Ridge Manor - Ashe Lake - Nikanor
- Bradfield Farms
- Brandywine Bay
- Buffalo Creek
- Carolina Forest
- Carolina Trace
- Chapel Hills
- College Park
- Connetsee Falls
- Country Club Annex
- Country Cross
- Country Hills - Lemmond Acres
- Crestview Estates
- Crystal Mountain
- Eagles Crossing
- Eastgate
- Eastwood Forest
- Elk River
- Fairfield Harbour
- Fairfield Mountain

- Fairfield Sapphire
- FFM Apple Valley
- Forest Hills

- Forestbrook
- Grandview
- Harbor House
- Harbour Point Farm
- Heather Glen
- Heathfield
- Hidden Hollow
- High Meadows
- High Vista
- Holly Acres
- Hound Ears
- Huntington Forest
- Jordan Woods
- Kings Grant
- Larkhaven
- Lindsey Point
- Linville Ridge
- LVS-Danby
- Mason Landing
- Meadow Glen
- Misty Mountain
- Monterrey
- Mountain Air
- Mt Mitchell
- Neuse Woods
- Oakdale Terrace
- Oakes Plantation
- Olde Lamp Place
- Olde Pointe
- Pinnacle Shores
- Powder Horn
- Quail Ridge
- Queens Harbor
- Ransdell Forest
- Riverbend Estates
- Riverpointe

- Riverwood
- Rutledge Landing North
- Saddlewood

- Sandy Trail
- Sherwood Forest
- Sherwood Park
- Silverton
- Ski Country
- Ski Mountain
- Stewarts Ridge
- Stone Hollow
- Suburban Heights
- Sugar Mountain
- Tanglewood Estates
- Tanglewood South
- The Ridges
- Treasure Cove
- Tuckahoe
- Watauga Vista
- Waterglyn
- Westwood Forest
- Whispering Pines
- White Oak Plantation
- Wilders Village
- Wildlife Bay
- Wildwood Green
- Willowbrook
- Winston Plantation
- Winston Pointe
- Wolf Laurel
- Wood Trace
- Woodhaven
- Woodrun
- Yorktown
- Zemosa Acres



Manage Your Utility Account Anytime Anywhere!

Manage Your Account, pay your bill, receive notifications and more ...

[Learn More & Register \(/carolinawater/account-billing/my-utility-connect\)](/carolinawater/account-billing/my-utility-connect)

[Account Login](#)



<https://apps.apple.com/ca/app/my-utility-connect/id1447552942>



https://play.google.com/store/apps/details?id=com.wsc.scm_mobile&hl=en&gl=US

[About Us \(/carolinawater/about-us\)](/carolinawater/about-us)

[Careers \(/carolinawater/careers\)](/carolinawater/careers)

Customer Service

(800) 525-7990 (M-F, 8 AM to 5 PM Eastern)

[Contact Us Online \(/my-utility-contact-us\)](/my-utility-contact-us)

Emergencies

(800) 525-7990 (24 Hours)



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<https://twitter.com/carolinawaternc>



<https://www.linkedin.com/in/carolina-water-north-carolina-b19384163>

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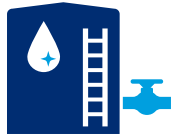
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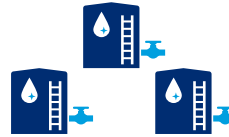
[Developers](#)



Storage Capacity

10 MG

37,854 m³



Storage Tanks

115 Tanks

The Case for Regulated Water Companies

Private water and wastewater utility ownership and management is an increasingly viable solution for communities navigating the challenges of providing safe, reliable utility services.

Closing the Infrastructure Gap

Many community utilities are grappling with the complex issues of aging infrastructure, rising operational costs, and increasingly stringent regulatory and environmental requirements. In fact, the US Environmental Protection Agency estimates \$472.6 Billion in additional water infrastructure investment will be required over the next 20 years. Managing this scale of investment and risk requires specialized experience and expertise.



Water and Wastewater Utilities Are Regulated

Virtually all private utility systems are regulated by government mandate, and regulation touches every aspect of systems design, operation, and service delivery, including the setting of user rates.

Water and wastewater utilities are monopolies by nature, but are strictly regulated to ensure services meet jurisdictional standards and rates are fair and reasonable. Communities always have a voice in the operation of their utilities, whether public or private.

Learn more about the benefits of regulated water companies at the National Association of Water Companies (NAWC) [website](#).



The Corix Advantage

At Corix, we believe in building strong community relationships to deliver long-term, cost effective, and efficient essential utility services. Our growing list of water systems is a direct result of matching the right resources – human, financial, technological – to local requirements.

We're Local

As our name suggests, Corix is a *group* of companies, who leverage shared economies and efficiencies, but provide localized services through regional and state operations. Local operations are backed-up by regional and national teams, which provides operational redundancy and risk mitigation in emergencies, such as severe weather events.

So choosing Corix brings the full breadth of our North American resources, expertise, and on-the-ground know-how to your local utility.



Our People Are Everything

We take great pride in our greatest strength – our people. Our North American team numbers over 800 professionals working in all areas of utility infrastructure management. And we're proud to have one of North America's largest private workforces of qualified water and wastewater systems operators and technicians.

Our lean and agile management, coupled with locally focused operations, lets us take advantage of human resources and efficiencies simply unavailable to smaller utilities. Even our smallest systems have the support of industry leading professionals in areas such as finance, regulation, technology, engineering, safety, and environment.

Investing in our people never stops, and we ensure all our teams are continually trained in the latest operational, safety, and environmental standards and protocols.

Our **Purpose** — *"We help people enjoy a better life and communities thrive."* — inspires our people to care for the communities they serve. Our **Core Values** of **Safety**, **Integrity**, **Connection**, and **Excellence**, underpin our daily activities, and we apply them consistently across all operations.



Utilities is Our Only Business

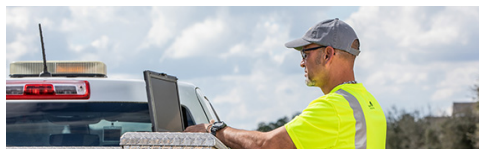
With over 20 years of experience in the utility industry, Corix knows community utilities.

Water and wastewater are at the core of our business, and unlike some of our competitors, we offer these services separately or combined. The ability to bundle services can produce significant operating efficiencies and economies of scale. As a result, most of our customers enjoy one-supplier water and wastewater services.

We also own and operate several systems that enjoy multi-utility services – typically water and wastewater together with one or more of gas, electricity, or geothermal. And we're always looking for new, innovative ways to provide essential utility services to the communities we serve.

We Invest for the Long-Term

A reliable, stable source of financing and capital is key to maintain utility services, implement major system improvements, or build new infrastructure. Corix has that financial expertise, with access to non-traditional sources of capital, and the ability to unlock the equity value of existing capital assets. We're able to do that because we're backed by the **British Columbia Investment Management Corp.** (BCI), one of North America's largest asset management companies.



We Embrace Technology

Corix applies industry-leading technologies to manage our systems, resources, and information. Our seamless integration of these platforms results in quality utility services for our customers.

Computerized Maintenance and Management System

Lowers costs and improves customer service

Geographic Information System

Helps keep systems running efficiently and reliably, and quickly respond to any issues

Asset Management

Manages maintenance and end-of-life replacement for highest value to customers

Supervisor Control and Data Acquisition

Realtime control and monitoring to lower costs, and enhance safety and security

Customer Care and Billing

Billing and call center support integrated with online customer services

Our command of these technologies ensures efficiency, safety, health and environmental compliance, and the provision of quality, essential utility services for customers at fair and reasonable rates.

We're Customer Experience Focused

Customers shouldn't have to worry about their utility services. Our approach to providing customer care services is to ensure customers stay happy, while providing communities with reliability, accountability, regulatory compliance, and risk management. We provide:

Customer billing, payment, and collections services

24/7 Call Center and online account services

Informational and communications services

Emergency response



We Care Deeply About Health, Safety, and the Environment

The protection and enhancement of the health, safety, and environment of the communities where we live and work is deeply engrained into our culture.

We apply technologies to meet and exceed the strictest health and environmental standards

We proactively test for and treat pathogens and contaminants

We strive to use environmentally friendly chemicals in our treatment processes

We continually inform and train our personnel in safety, health, and environmental protocols

We take cyber security concerns seriously and have implemented security measures to ensure the safety of our utility systems

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With regulated water, wastewater, and energy operations throughout the United States and Canada, we're experts in all things regulatory. Corix companies have the experience, relationships, and resources needed to anticipate and address all regulatory requirements.



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2,502 km

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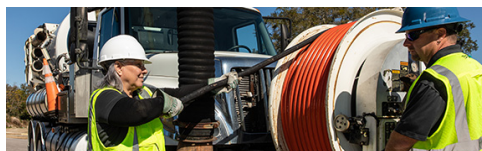
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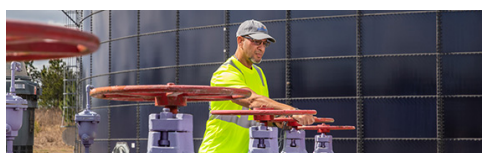
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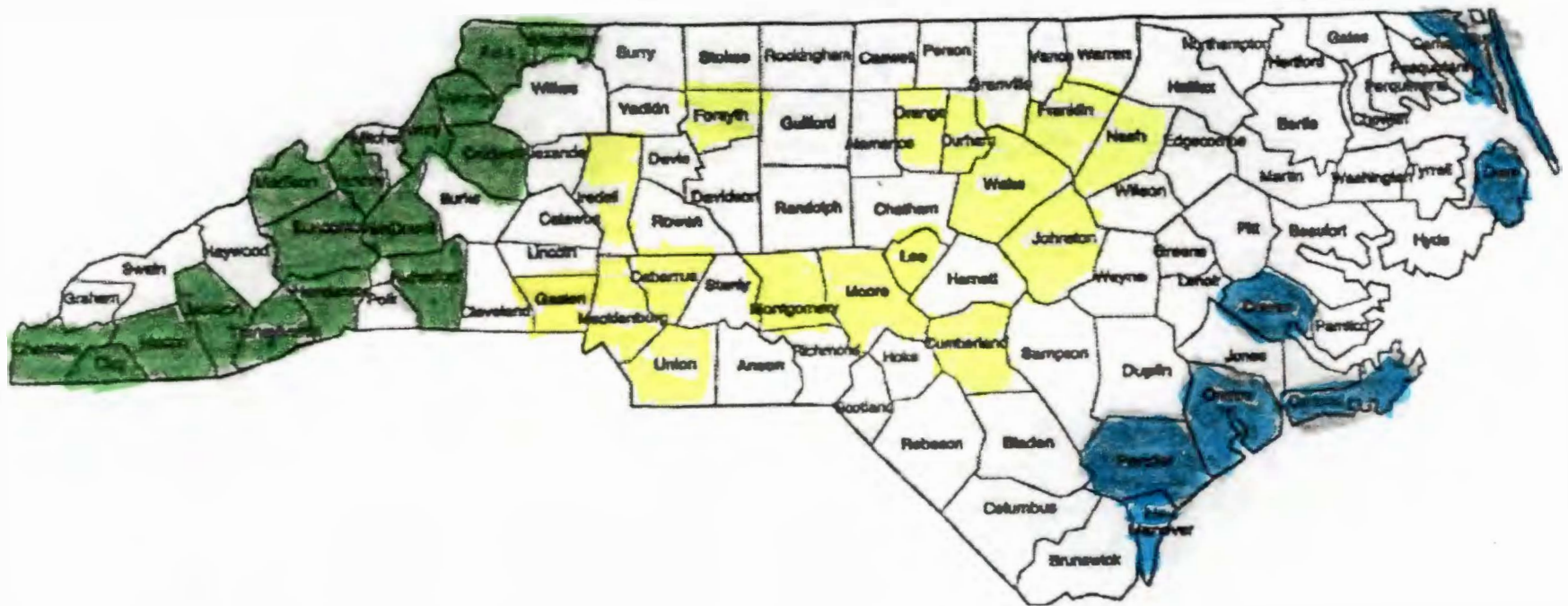
Carolina Water Service, Inc. of North Carolina
W-354, Sub 400
Test Year: March 31, 2022
WSIP Period: April 1, 2023 - March 31, 2026

Docket No. W-354, Sub 400
Appendix 8
Schedule G
Page 1 of 1

Counties in which Water and Sewer service is provided:

<u>County</u>	<u>Water</u>	<u>Sewer</u>
Alleghany	W	
Ashe	W	
Avery	W	S
Buncombe	W	S
Cabarrus	W	
Caldwell	W	
Carteret	W	S
Cherokee	W	S
Clay	W	S
Craven	W	S
Cumberland	W	
Currituck		S
Dare		S
Durham	W	
Forsyth	W	S
Franklin	W	
Gaston	W	S
Henderson	W	
Iredell	W	S
Jackson	W	S
Johnston	W	S
Lee	W	S
Macon	W	
Madison	W	S
McDowell	W	
Mecklenburg	W	S
Montgomery	W	
Moore	W	
Nash	W	
New Hanover	W	
Onslow		S
Pender	W	S
Rutherford	W	S
Transylvania	W	S
Union	W	S
Wake	W	S
Watauga	W	S
Yancey	W	S

Counties Served by CWSNC



- Mountain Counties
- Piedmont Counties
- Coastal Counties

COMMISSION APPROVED COMMON EQUITY RATIOS & ROEs

State	Utility	Docket No.	Order date	Equity Ratio	Return on Equity
IA	Iowa American Water Co.	RPU-2013-0002	2/28/14	52.57%	9.41%
NC	Carolina Water Service of NC	W-354, Sub 338	3/10/14	50.27%	9.75%
NC	Aqua North Carolina	W-218, Sub 383	5/2/14	50.00%	9.75%
HI	Waikoloa Utilities	2011-0331	5/23/14	50.00%	9.89%
NJ	Middlesex Water Co.	WR-13111059	8/18/14	50.71%	9.75%
NY	SUEZ Water New York Inc.	13-W-0295	8/24/14	44.00%	9.20%
NY	SUEZ Water Westchester	13-W-0584	8/24/14	47.00%	9.20%
DE	Tidewater Utilities, Inc.	13-466	8/19/14	50.98%	9.75%
NJ	Aqua New Jersey	WR-14010019	8/20/14	52.47%	9.75%
OH	Aqua Ohio Water Co.	13-2124-WWW-AJR	9/10/14	51.60%	9.80%
NY	SUEZ Water New Rochelle, Inc.	13-W-0889	11/14/14	47.00%	9.20%
Average				49.89%	9.69%
HI	Waikoloa Water	2012-0148	2/19/15	50.00%	9.89%
ME	Maine Water	2014-00349	3/11/15	48.50%	9.50%
IL	Aqua Illinois	14-0419	3/25/15	53.28%	9.81%
HI	Kona Water Service	2013-0375	6/29/15	53.00%	10.10%
NJ	SUEZ Toms River	WR-15020289	8/19/15	53.00%	9.75%
NJ	Middlesex Water Co.	WR-15030391	8/19/15	51.38%	9.75%
NJ	New Jersey American Water Co.	WR-15010035	9/11/15	52.00%	9.75%
NC	Carolina Water Service of NC	W-354, Sub 344	12/7/15	51.00%	9.75%
Average				51.82%	9.79%
VA	Aqua Virginia, Inc.	PUE-2014-00045	1/7/16	49.20%	9.25%
DE	Artesian Water	14-132	1/19/16	50.54%	9.75%
NV	Utilities, Inc. of Central Nevada	15-06083	1/25/16	49.45%	9.50%
WV	West Virginia American Water Co.	15-0678-W-42T	2/24/16	45.84%	9.75%
NC	CWS Systems, Inc.	W-778 Sub 91	2/24/16	51.00%	9.75%
NJ	SUEZ New Jersey Inc.	WR-15101177	4/27/16	53.00%	9.75%
NJ	Aqua New Jersey	WR15010089	6/9/16	52.86%	9.75%
HI	Hawaii Water Service	2015-0230	9/12/16	53.00%	10.1%
IL	Aqua American Water Co.	16-0093	12/13/16	49.80%	9.79%
Average				50.82%	9.71%
NY	SUEZ Water New York	C-16-W-0130	1/27/17	46.00%	9.0%
IA	Iowa American Water	D-RPU-2016-0002	2/27/17	52.04%	9.6%
NY	New York American Water Co.	C-16-W-0259	5/18/17	46.00%	9.1%
VA	Virginia American Water	C-PUE-2015-00097	5/24/17	46.00%	9.3%
NC	Carolina Water Service, Inc. of NC	W-354 Sub 356	11/9/17	52.00%	9.6%
Average				48.43%	9.31%
IL	Aqua Illinois	D-17-0259	3/7/18	53.22%	9.60%
CA	California American Water Co.	A17-04-003	3/22/18	55.39%	9.20%
CA	California Water Service Co	A17-04-006	3/22/18	53.40%	9.20%
CA	Golden State Water Co.	A17-04-002	3/22/18	57.00%	8.90%
CA	San Jose Water Co.	A17-04-001	3/22/18	53.28%	8.90%
NJ	Middlesex Water Co.	D-WR-17-101049	3/24/18	52.75%	9.60%
SC	Carolina Water Service, Inc.	D-2017-292-WS	5/2/18	51.89%	10.50%
NY	SUEZ Water Oswego-Nicolls Inc.	C-17-W-0528	7/13/18	46.00%	8.90%
IL	Utility Services of IL, Inc. Water	D-17-1106	9/24/18	52.15%	9.23%
IL	Utility Services of IL, Inc. Water/Water	D-17-1106	9/24/18	52.15%	9.31%
RI	Suez Water Rhode Island	D-R-4800	10/5/18	53.91%	9.40%
NJ	New Jersey American Water	D-WR-17-090985	10/29/18	54.00%	9.60%
MD	Aquarion Water Co. of Mass.	D.P.U. 17-90	10/31/18	47.04%	10.50%
NJ	SUEZ Water New Jersey	D-WR-18050593	11/19/18	54.00%	9.60%
NC	Aqua North Carolina	D-W-218, Sub 497	12/18/18	50.00%	9.70%
CA	Suburban Water Systems	A-18-05-004	12/20/18	60.00%	9.25%
VA	Massachusetts Public Service Corp.	C-PUR-2017-00089	12/31/18	52.19%	9.25%
Average				52.86%	9.46%
HI	Hawaii Water Service	D-2017-0350	1/7/19	53.40%	9.20%
MD	Maryland American Water	C-9487	2/5/19	48.88%	NA
WV	West Virginia American Water Co	C-18-0573-W-42T	2/8/19	49.79%	9.75%
NC	Carolina Water Service of NC	D-W-354, Sub 380	2/21/19	50.91%	9.75%
NJ	Aqua New Jersey	WR-18121351	5/28/19	53.00%	9.60%
KY	Kentucky American Water Co.	2018-00358	6/27/19	48.76%	9.70%
Average				50.75%	9.60%
Average of Annual Averages				50.81%	9.57%
Average Across Years				51.04%	9.57%

Three Year

Source: RRA

Average of 30 ROE decisions 7-1-2016 through 6-30-19 = 9.50%

W-354, SUB 400
PUBLIC STAFF
D'ASCENDIS PROPOSED CROSS EXHIBIT NO. 14

UTILITIES, INC. AND SUBSIDIARY COMPANIES

CONSOLIDATED STATEMENTS OF CAPITALIZATION
AS OF AUGUST 31, 2022 AND DECEMBER 31, 2021

	Unaudited August 31, 2022	December 31, 2021
COMMON SHAREHOLDERS' EQUITY:		
Common shares, \$.10 par value; authorized and issued 1,100 shares	\$ 110	\$ 110
Paid-in capital	257,265,034	237,265,034
Retained earnings	124,759,970	108,281,563
TOTAL COMMON SHAREHOLDERS' EQUITY	\$ 382,025,114	\$ 345,546,707
LONG-TERM DEBT:		
Collateral trust notes- 6.58%, \$9,000,000 due in annual installments beginning in 2017 through 2035	\$ 367,000,000	\$ 326,000,000
Debt financing cost	\$ (1,564,144)	\$ (1,501,429)
TOTAL LONG-TERM DEBT	\$ 365,435,856	\$ 324,498,571
Less-Current maturities	-	-
TOTAL LONG-TERM DEBT, NET	\$ 365,435,856	\$ 324,498,571
CAPITALIZATION, exclusive of short-term financing	\$ 747,460,971	\$ 670,045,278

Libor	8,000,000		
Long-term debt (\$50M) - 6/22	49,855,375		
Long-term debt (\$50M) - 5/20	49,787,873		
Long-term debt (\$50M) - 5/20	49,767,345		
Long-term debt (\$180M) - 7/06	125,411,097		
Long-term debt (\$100M) - 10/18	99,614,166	49.60%	Debt
Equity	382,025,114	50.40%	Equity
Total Capital	756,460,971	100.00%	
	LTD	374,435,856	
	LTD + Libor	382,435,856	

Actual Rate	Blended Rates
3.86%	0.05%
3.88%	0.52%
3.15%	0.42%
3.35%	0.45%
6.58%	2.21%
4.37%	1.16%
	4.75%

(1) Blended interest rate is calculated by dividing each note amount by total debt, multiplied by the interest rate on the note. The weighted rates are added together to calculate the total blended rate.

The accompanying notes to consolidated financial statements
are an integral part of these statements.

Carolina Water Service Inc. of North Carolina
Market Capitalization of Carolina Water Service Inc. of North Carolina and the
Proxy Group of Six Water Companies

Company	Exchange	[1] Common Stock Shares Outstanding at Fiscal Year End 2021 (millions)	[2] Book Value per Share at Fiscal Year End 2021 (1)	[3] Total Common Equity at Fiscal Year End 2021 (millions) <i>Aug 31 2022</i>	[4] Closing Stock Market Price on October 14, 2022	[5] Market-to-Book Ratio on October 14, 2022 (2)	[6] Market Capitalization on October 14, 2022 (3) (millions)
Carolina Water Service Inc. of North Carolina		NA	NA	\$ <i>382.025(4)</i> 96.889 (4)	NA		<i>1,465.373</i>
Based upon Proxy Group of Six Water Companies						283.9 (5)	\$ 275.065 (6)
Proxy Group of Six Water Companies							
American States Water Company	NYSE	36.936	\$ 18.571	\$ 685.947	\$ 84.880	457.1 %	\$ 3,135.152
American Water Works Company, Inc.	NYSE	181.611	40.185	7,298.000	128.440	319.6	23,326.128
California Water Service Group	NYSE	53.716	22.023	1,182.980	54.670	248.2	2,936.654
Essential Utilities Inc.	NYSE	252.868	20.503	5,184.450	39.910	194.7	10,091.947
Middlesex Water Company	NASDAQ	17.522	20.987	367.726	81.020	386.0	1,419.632
SJW Group	NYSE	30.181	34.277	1,034.519	62.200	181.5	1,877.280
Median		45.326	\$ 21.505	\$ 1,108.750	\$ 71.610	283.9 %	\$ 3,035.903

NA= Not Available

Notes: (1) Column 3 / Column 1.

(2) Column 4 / Column 2.

(3) Column 1 * Column 4.

(4) Combined book common equity from Company 2021 annual report filed with the Commission.

(5) The market-to-book ratio of Carolina Water Service Inc. of North Carolina on October 14, 2022 is assumed to be equal to the market-to-book ratio of Proxy Group of Six Water Companies on October 14, 2022 as appropriate.

(6) Column [3] multiplied by Column [5].

Source of Information: 2021 Annual Forms 10K
Bloomberg Financial Services

*(4) Common Equity Utilities, Inc
and Subsidiaries 31 August 2022*

RRA REGULATORY FOCUS

Authorized water ROEs remain above 2021 levels, based on small dataset

Tuesday, November 8, 2022 10:15 AM ET

By Heike Doerr
Market Intelligence

In the first nine months of 2022, seven water utility rate cases were completed with an average return on equity of 9.59%, as monitored by Regulatory Research Associates.

The Take

* While the average electric and gas authorized ROEs remained near all-time lows in the first nine months of 2022, the average has remained higher than 2021 for the water utility group, albeit based on a small sample set. Base rate proceedings for RRA-tracked water utilities across seven states were completed from January to September, with returns on equity ranging from 9.1% to 10.0%.

* Ten major water utility rate cases were completed in 2021. Cost-of-capital parameters and authorized rate base values were disclosed in just half of these proceedings, however, with an average ROE of 9.46%.

* The average ROE authorized electric distribution-only utilities was 9.13% in rate cases decided in the first nine months of 2022, up from the 9.04% average for full year 2021. The average ROE authorized gas utilities was 9.42% in cases decided in the same period of 2022 versus 9.56% for full year 2021.

For the trailing 12 months ended Sept. 30, 10 water utility rate cases were completed, with the cost of capital parameters disclosed in nine proceedings and the ROE authorization averaging 9.58%.

At the low end, the New Hampshire Public Utilities Commission authorized Eversource Energy subsidiary Aquarion Water Co. of New Hampshire Inc. a 9.1% ROE in a settled proceeding completed in July.

In a litigated proceeding, the Pennsylvania Public Utility Commission authorized Essential Utilities Inc. subsidiaries Aqua Pennsylvania Inc. and Aqua Pennsylvania Wastewater Inc. a 10.0% return on equity, which included a 25-basis-point management performance bonus. The PUC has granted management performance adjustments to ROE in previous rate cases, ranging from 5 to 25 basis points.

As shown in the table below, the common equity component of capital across rate proceedings over the trailing 12 months ended Sept. 30 ranged from 47.78% to 54.56%.

Water utility rate case decisions – trailing twelve months, Sept. 30, 2022

Date	Company	State	ROR (%)	ROE (%)	Common equity as percent of capital	Rate base (\$M)	Test year end
Sep. 21, 2022	Aqua Ohio	OH	6.78	9.50	52.10	265	Dec. 2021
Aug. 17, 2022	New Jersey American Water	NJ	7.01	9.60	54.56	4,146	Jun. 2022
Jul. 29, 2022	Aquarion Water Co. of New Hampshire	NH	7.54	9.10	54.42	29	Dec. 2019
May. 16, 2022	Aqua Pennsylvania Inc.	PA	7.24	10.00	53.95	3,810	Mar. 2023
Apr. 8, 2022	Carolina Water Service Inc. of North Carolina	NC	7.14	9.40	50.20	144	Mar. 2021
Apr. 7, 2022	The Maine Water Co. (Biddeford & Saco Division)	ME	6.29	9.70	50.03	NA	Dec. 2020
Feb. 24, 2022	West Virginia American Water Co.	WV	7.01	9.80	47.97	731	Dec. 2020
Dec. 15, 2021	Middlesex Water Co.	NJ	6.35	9.60	53.00	514	Sep. 2021
Dec. 1, 2021	Utility Services of Illinois Inc	IL	7.19	9.52	47.78	52	Dec. 2022
Nov. 18, 2021	California American Water Co.	CA	NA	NA	NA	668	Dec. 2021
LTM	Average rate award		6.95	9.58	51.56		

As of Nov. 3, 2022.

NA = not applicable or not available; ROR = return on rate base; ROE = return on equity.

Source: Regulatory Research Associates, a group within S&P Global Commodity Insights.

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For additional details regarding water utility rate cases from 2010 through Sept. 30, 2022, please refer to this industry document.

Comparison to electric, natural gas utilities

For electric distribution-only cases, the industry average ROE was 9.13% in the first nine months of 2022 versus 9.04% in full year 2021. There were three electric ROE authorizations year-to-date compared with 10 in full year 2021.

The average authorized ROE for gas utilities was 9.42% in cases decided in the first nine months of 2022 versus 9.56% in full year 2021. Seventeen gas cases included an ROE determination year-to-date in 2022 versus 43 in full-year 2021.

For additional details on electric and natural gas utility rate decisions, refer to US energy ROE authorizations hit all-time lows as macroeconomic pressures mount.

RRA currently evaluates water utility regulation in 25 state jurisdictions and monitors rate proceedings involving rate change requests of \$1.0 million or greater for the 12 largest investor-owned and privately held water utilities. The attached industry document provides data for over 175 rate proceedings currently

accumulated, spanning a period between January 2010 and September 2022. The simple mean is utilized for the return averages. The average equity returns indicated may not represent the returns earned by utilities industrywide as it does not include smaller proceedings and every jurisdiction overseeing water utilities

Regulatory Research Associates is a group within S&P Global Commodity Insights.

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For a complete, searchable listing of RRA's in-depth research and analysis, please go to the S&P Capital IQ Pro Energy Research Library.

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Dec 05 2022

Mr. D'Ascendis Return on Equity Recommendations and Authorized Returns on Equity 2015 through 2019 Year-to-Date

Company Name	Case Number	State	D'Ascendis Percent Recommended ROE	Date Authorized	Percent Authorized ROE	Basis Points D'Ascendis Below Authorized ROE
Middlesex Water Company	WR15030391	NJ	10.40	7/27/2015	9.75 ⁽¹⁾	65
Utility Services of Illinois, Inc.	14-0741	IL	N/A	9/22/2015	N/A ⁽¹⁾	
Carolina Water Service, Inc.	2015-199-WS	SC	10.00-10.50	12/22/2015	9.34 ⁽¹⁾	91
Aqua Indiana, Inc. Aboite Wastewater Division	44752	IN	10.15-10.70	8/4/2016	9.70 ⁽¹⁾	72
Aqua Ohio, Inc.	16-0907-WW-AIR	OH	10.25-10.65	2/14/2017	9.87 ⁽¹⁾	58
Raccoon Creek Utility Operating Company, Inc.	SR-2016-0202	MO	15.75	10/17/2016	12.15 ⁽¹⁾	360
Aqua Illinois, Inc.	17-0259	IL	10.85	3/2/2018	9.60 ⁽¹⁾	125
Aqua Virginia, Inc.	PUR-2017-00082	VA	10.60	10/19/2018	9.25 ⁽¹⁾	135
Columbia Water Company	R-2017-2598203	PA	11.30	3/1/2018	N/A ⁽¹⁾	
Middlesex Water Company	WR17101049	NJ	10.70	3/6/2018	9.60 ⁽¹⁾	110
Indian Hills Utility Operating Company, Inc.	WR-2017-0259	MO	15.20	11/21/2017	12.00 ⁽¹⁾	220
Kaupulehu Water Company	2016-0363	HI	11.60	Ongoing		
Carolina Water Service, Inc.	2017-292-WS	SC	10.45-10.95	5/26/2018	10.50	20
Colorado Natural Gas Company	18AL-305G	CO	11.75-11.90	10/10/2018	10.30 ⁽¹⁾	152
SUEZ Water Pennsylvania, Inc.	R-2018-3000834	PA	10.40-11.50	10/10/2028	N/A ⁽¹⁾	N/A
Aqua North Carolina, Inc.	W-218, Sub 497	NC	10.80	12/18/2018	9.70	110
Arizona Water Company - Northern Group	W-01445A-18-0164	AZ	10.80-11.35	8/19/2019	9.33	174
Carolina Water Service, Inc. of North Carolina	W-354, Sub 360	NC	10.80-11.20	2/21/2019	9.75	125
Aqua New Jersey, Inc.	WR18121351	NJ	10.45	5/8/2019	9.60 ⁽¹⁾	85
Carolina Water Service, Inc. of North Carolina	W-354, Sub 364	NC	10.75	Ongoing		

Average Authorized ROE Basis Points below Mr. D'Ascendis Recommended ROE = 127 basis points

N/A: Not Applicable

⁽¹⁾ Result is a product of a settlement/stipulation.

Source: CWSNC Response to Public Staff Data Request 14.2

Note: Where Mr. D'Ascendis recommended a range for ROE, the midpoint of the range used for calculations.

D'Ascendis Proxy Companies
Approved ROEs – Last Three Years

Company	Decision Date	Approved ROE
Illinois American Water Co.	12-13-16	9.80%
Iowa American Water Co.	2-27-17	9.60%
New York American Water Co.	5-18-17	9.10%
Virginia American Water Co.	5-24-17	9.30%
California American Water Co.	3-22-18	9.20%
California Water Service Co.	3-22-18	9.20%
Golden State Water Co.	3-22-18	8.90%
New Jersey American Water Co.	10-29-18	9.60%
West Virginia American Water Co.	2-8-19	9.75%
Kentucky American Water Co.	6-27-19	9.70%
3 Year Average	=	9.42%

COMMONWEALTH OF VIRGINIA
STATE CORPORATION COMMISSION

AT RICHMOND, NOVEMBER 29, 2017

W-354, Sub 400
Public Staff
D'Ascendis Proposed Cross Exhibit No. 17

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APPLICATION OF

VIRGINIA ELECTRIC AND POWER COMPANY

CASE NO. PUR-2017-00038

For the determination of the fair
rate of return on common equity to be
applied to its rate adjustment clauses

FINAL ORDER

On March 31, 2017, Virginia Electric and Power Company ("Dominion" or "Company") filed with the State Corporation Commission ("Commission") an application ("Application") for the determination of the fair rate of return on common equity ("ROE") to be applied to its rate adjustment clauses ("RACs") for the next two years pursuant to § 56-585.1:1 of the Code of Virginia ("Code").¹ Enacted in 2015, this provision of the Code requires that:

Commencing in 2017 and concluding in 2019, the State Corporation Commission, after notice and opportunity for a hearing, shall conduct a proceeding every two years to determine the fair rate of return on common equity to be used by a Phase II Utility as the general rate of return applicable to rate adjustment clauses under subdivisions A 5 or A 6 of § 56-585.1. A Phase II [U]tility's filing in such proceedings shall be made on or before March 31 of 2017 and 2019.²

The Company requests that the Commission approve an ROE of 10.5% for Dominion's RACs approved under Subdivision A 5 or A 6 of Code § 56-585.1, to be applied prospectively,

¹ Ex. 2 (Application) at 1.

² Code § 56-585.1:1 C 2. Dominion is a Phase II Utility. See Code § 56-585.1 A 1.

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Dec 05 2022

effective with the date of the Commission's final order in this proceeding.³ Dominion currently has a total of nine RACs subject to the ROE to be determined in this proceeding.⁴

On April 21, 2017, the Commission issued an Order for Notice and Hearing that, among other things, docketed the Application; required Dominion to publish notice of its Application; gave interested persons the opportunity to comment on or participate in the proceeding; and scheduled a public hearing. Notices of participation were filed in this proceeding by the Virginia Committee for Fair Utility Rates ("Committee") and the Office of the Attorney General's Division of Consumer Counsel ("Consumer Counsel"). On July 26, 2017, Consumer Counsel filed the testimony and exhibits of its witness. On August 9, 2017, the Commission's Staff ("Staff") filed the testimony and exhibits of its witness. On August 23, 2017, the Company filed rebuttal testimony. No public comments were received on the Application.

The Commission convened a hearing, as scheduled, on September 6, 2017. No public witnesses appeared to testify at the hearing. The Company, the Committee, Consumer Counsel and Staff participated at the hearing. During the hearing, the Commission received testimony from witnesses on behalf of the participants, admitted evidence on the Application, and received closing argument from counsel.

NOW THE COMMISSION, upon consideration of this matter, is of the opinion and finds as follows.

As noted above, the sole purpose of this case is a determination of the fair ROE to be used by Dominion as the general return applicable to RACs under subdivisions A 5 or A 6 of

³ Ex. 2 (Application) at 4.

⁴ Dominion's RACs, and subsequent revisions thereto, approved under these statutes include Riders B, BW, C1/C2, GV, R, S, U, US-2, and W.

Code § 56-585.1 A.⁵ "Such fair rate of return shall be calculated pursuant to the methodology set forth in subdivisions A 2 a and b of § 56-585.1. . . ."⁶ Thus, the Commission follows a similar process in determining a fair ROE herein as has been done in prior proceedings using the methodology set forth in Code § 56-585.1 A 2 a and b. First, the Commission determines the market cost of equity. Next, the statutory peer group ROE floor is applied.

Market Cost of Equity

Company witness Hevert calculated Dominion's cost of equity to be between 10.25% and 10.75% and determined that, considering the economic requirements necessary to support continuous access to capital, an ROE of 10.5% represents Dominion's cost of equity.⁷ Consumer Counsel witness Woolridge calculated Dominion's market cost of equity to be between 7.6% and 8.75% and determined that 8.75% represents Dominion's market cost of equity.⁸ Staff witness Oliver calculated Dominion's market cost of equity to be between 8.25% and 9.25% and determined that establishing the Company's cost of capital at 9.1% was appropriate.⁹ The Committee examined the testimony presented by Company witness Hevert, Staff witness Oliver, and Consumer Counsel witness Woolridge and recommended that the Commission adopt a market cost of equity that is no higher than the 9.1% recommended by Staff witness Oliver.¹⁰

The Commission finds that a market cost of equity within a range of 8.5% and 9.5% fairly represents the actual cost of equity in capital markets for companies comparable in risk to

⁵ Code § 56-585.1:1 C 2.

⁶ Code § 56-585.1:1 C 3.

⁷ Ex. 3 (Hevert Direct) at 4-50, 54-56.

⁸ Ex. 4 (Woolridge Direct) at 1-82.

⁹ Ex. 5 (Oliver Direct) at 1-16, 24-34.

¹⁰ See Tr. 18.

Dominion seeking to attract equity capital. Furthermore, under the circumstances of this case and for purposes of implementing Code § 56-585.1:1, the Commission finds that using a cost of equity of 9.2% is fair and reasonable for these purposes. The Commission concludes that this return is supported by the evidence in the record, results in a fair and reasonable ROE, and satisfies the following constitutional standards as stated by Staff witness Oliver: "maintenance of financial integrity, the ability to attract capital on reasonable terms, and earnings commensurate with returns on investments of comparable risk."¹¹ Conversely, the Commission further finds that Dominion's proposed cost of equity of 10.25% to 10.75% represents neither the actual cost of equity in the marketplace nor a reasonable ROE for the Company.

We conclude that a market cost of equity of 9.2% is supported by reasonable proxy groups, growth rates, discounted cash flow ("DCF") methods, and risk premium analyses.¹² Indeed, we conclude that the evidence supports a market cost of equity at the midpoint of the range, *i.e.*, 9.0%. We find that approving an ROE above the midpoint of the range found reasonable (9.2%) is supported by the concept of gradualism in ROE determinations.

While the market cost of equity approved herein is supported by reasonable proxy groups, growth rates, DCF methods, risk premium analyses, and gradualism in ROE determinations, the Commission finds that Dominion's proposed market cost of equity of 10.5% is not supported by reasonable growth rates, DCF methods or risk premium analyses. For example, the Company continues to use only earnings per share as the measure of growth in its DCF model.¹³ As the Commission has previously stated, using only earnings per share as the

¹¹ Ex. 5 (Oliver Direct) at 4.

¹² *See, e.g.*, Ex. 5 (Oliver Direct) at 4-16, 24-34; Ex. 4 (Woolridge Direct) at 1-82.

¹³ Ex. 3 (Hevert Direct) at 19-21; Ex. 4 (Woolridge Direct) at 68-70; Ex. 5 (Oliver Direct) at 26-27; Tr. 166-67.

measure of long-term growth results in unreasonably high growth rates that upwardly skew results.¹⁴ Moreover, the Company's Capital Asset Pricing Model ("CAPM") analysis is also flawed. For example, the Company's highest ROE estimates result from the use of a 2019 projected 30-year Treasury bond yield of 4.2% and a 2021 projected 30-year Treasury bond yield of 4.4%.¹⁵ The Commission has explicitly rejected the use of such projected interest rates in prior cases, stating that inclusion of these projected rates inflates the results of the utility's risk premium analysis.¹⁶ In addition, the Company exclusively used earnings per share as the measure of long-term growth to develop the market risk premium component of its CAPM analysis, which results in an overstatement of the cost of equity.¹⁷ The Company's Bond Yield Plus Risk Premium analysis contains similar flaws as its CAPM analysis.¹⁸

¹⁴ See, e.g., *Application of Virginia Electric and Power Company, For a 2013 biennial review of the rates, terms and conditions for the provision of generation, distribution and transmission services pursuant to § 56-585.1 A of the Code of Virginia*, Case No. PUE-2013-00020, 2013 S.C.C. Ann. Rept. 371, 374, Final Order (Nov. 26, 2013); *Application of Appalachian Power Company, For an increase in electric rates*, Case No. PUE-2006-00065, 2007 S.C.C. Ann. Rept. 321, 327, Final Order (May 15, 2007) (stating that significant biases were embodied in Appalachian Power Company's ("APCo") DCF analysis because the utility's growth rate "primarily emphasized projected earnings per share growth rates and ignored other projected rates of growth for dividends, book value, and retained earnings to estimate a long-term sustainable growth rate assumed by the DCF model and reflected in the rates developed by the other witnesses.").

¹⁵ Ex. 3 (Hevert Direct) at 27; Ex. 9 (Hevert Rebuttal) at 96. Use of the 2021 projected 30-year Treasury bond yield of 4.4% in the Company's original CAPM analysis suggested an ROE range of 10.59% to 12.39%. Ex. 3 (Hevert Direct) at 27. In contrast, use of a current 30-year Treasury bond yield in the Company's original CAPM analysis suggested an ROE range of 9.26% to 11.06%. *Id.*

¹⁶ See, e.g., *Application of Appalachian Power Company, For the determination of the fair rate of return on common equity to be applied to its rate adjustment clauses*, Case No. PUE-2016-00038, 2016 S.C.C. Ann. Rept. 393, 395, Final Order (Oct. 6, 2016); *Application of Aqua Virginia, Inc., For an increase in rates*, Case No. PUE-2014-00045, 2016 S.C.C. Ann. Rept. 206, 209, Final Order (Jan. 7, 2016); *Application of Appalachian Power Company, For an increase in electric rates*, Case No. PUE-2006-00065, 2007 S.C.C. Ann. Rept. 321, 327, Final Order (May 15, 2007). See also Ex. 5 (Oliver Direct) at 27-29.

¹⁷ See, e.g., Ex. 3 (Hevert Direct) at 25-26, Schedule 2; Ex. 4 (Woolridge Direct) at 71-80; Ex. 5 (Oliver Direct) at 29-30.

¹⁸ See Ex. 3 (Hevert Direct) at 27-30; Ex. 4 (Woolridge Direct) at 80-82; Ex. 5 (Oliver Direct) at 29-30.

Further, we reject claims that certain business risks facing Dominion warrant a 10.5% ROE.¹⁹ For example, while Company witness Hevert claims that risks associated with the Company's anticipated capital expenditures warrant a 10.5% ROE, of the approximately \$8.5 billion of additional planned capital expenditures the Company anticipates making, the record indicates that Dominion plans to recover over \$5 billion of this projected amount through RACs, which permit the timely and current recovery of all reasonable and prudent costs on a dollar-for-dollar basis.²⁰

Dominion suggests that its ROE should not be any lower than 9.4%.²¹ The Commission first approved an ROE of 9.4% for Dominion in a February 16, 2017 Order issued in Case Nos. PUE-2016-00059, PUE-2016-00060, PUE-2016-00061, PUE-2016-00062 and PUE-2016-00063.²² The midpoint of the range found reasonable in those cases was 9.0%. The Commission, however, did not direct an ROE of 9.0% but, rather, approved 9.4% based on the concept of gradualism in ROE cases. In addition, the Commission's decision in those proceedings was based on the record of evidence presented there, which reflects earlier financial data. For example, in those proceedings Staff and the Company relied upon financial data from late 2016.²³ In contrast, in the instant case, the Company updated its ROE results with financial data through July 2017.²⁴ Moreover, the record presented in this proceeding shows that

¹⁹ Ex. 3 (Hevert Direct) at 30-37; Ex. 5 (Oliver Direct) at 31-34.

²⁰ Ex. 3 (Hevert Direct) at 30-31; Ex. 5 (Oliver Direct) at 31.

²¹ Tr. 17.

²² See, e.g., *Application of Virginia Electric and Power Company d/b/a Dominion Virginia Power, For revision of rate adjustment clause: Rider S, Virginia City Hybrid Energy Center*, Case No. PUE-2016-00062, Doc. Con. Cen. No. 170220479, Order (Feb. 16, 2017).

²³ *Id.* at 11-12.

²⁴ See, e.g., Ex. 9 (Hevert Rebuttal) at Schedule 1.

The participants differed on which utilities should be included in the statutory peer group in this proceeding. First, Dominion excluded Mississippi Power Company ("Mississippi Power") from the statutory peer group solely because "its Moody's long term bond rating (Ba1) has dropped below the required level of at least Baa."²⁶ Staff and Consumer Counsel included Mississippi Power in their statutory peer group analyses because "Mississippi Power had a Moody's long-term bond rating of Baa3 at the end of the test period."²⁷

Code § 56-585.1 A 2 b mandates that "an investor-owned electric utility shall be deemed part of such peer group if ... (iii) it had a long-term bond rating assigned by Moody's Investors Service of at least Baa at the end of the most recent test period subject to such biennial review...." Code § 56-585.1:1 C 3 states that the ROE "shall be calculated [utilizing] ... a 12-month test period ending December 31 immediately preceding the year in which the proceeding is conducted." Factually, December 31, 2014, is "the end of the most recent test period subject to [a] biennial review"²⁸ for Dominion. Calendar year 2016 is the "12-month test period ending December 31 immediately preceding the year in which the [present] proceeding is conducted."²⁹ Notably, under either plain language interpretation identified above, Mississippi Power's downgrade would not affect its inclusion in the statutory peer group because the downgrade occurred on March 1, 2017, which is clearly after the end of either review period.³⁰ The Commission therefore finds that, for purposes of this proceeding, Mississippi Power shall be considered part of the peer group.

²⁶ Ex. 2 (Application) at Filing Schedule 45 - Statement 3A.

²⁷ Ex 4 (Woolridge Direct) at 86. *See also* Ex. 5 (Oliver Direct) at 19-20.

²⁸ Code § 56-585.1 A 2 b.

²⁹ Code § 56-585.1:1 C 3.

³⁰ Ex 4 (Woolridge Direct) at 86; Ex. 5 (Oliver Direct) at 19; Tr. 132.

The participants also differed on whether APCo should be considered part of the peer group. Staff and Consumer Counsel included APCo in their proposed peer groups, while Dominion excluded APCo from its proposed peer group.³¹ However, as discussed below, we have selected a statutory floor majority that is lower than the ROE approved herein regardless of whether APCo is included as part of the total peer group; thus, we need not address APCo's inclusion or exclusion as part of this proceeding.

The majority that the Commission selects had, on average, a return on average equity close to the ROE found fair and reasonable herein.³² This results in a statutory floor below the ROE approved herein.³³ The Commission concludes that the specific majority chosen herein is reasonable and does not violate any constitutional or statutory provision.³⁴

³¹ Ex. 3 (Hevert Direct) at 51-54; Ex 4 (Woolridge Direct) at 85-86; Ex. 5 (Oliver Direct) at 18-19; Ex. 9 (Hevert Rebuttal) at 55-56, 95.

³² Based upon the facts in this case, the Commission finds that it is reasonable to utilize returns on average equity for this purpose.

³³ The statutory floor without APCo in the peer group is 9.09% and is comprised of the following companies: Entergy Mississippi, Inc., Louisville Gas & Electric Company, Duke Energy Progress, Inc., South Carolina Electric & Gas Company, and Duke Energy Carolinas, LLC. The statutory floor with APCo in the peer group is 9.07% and is comprised of the following companies: Entergy Mississippi, Inc., Louisville Gas & Electric Company, Duke Energy Progress, Inc., South Carolina Electric & Gas Company, Duke Energy Carolinas, LLC, and APCo. *See* Ex. 5 (Oliver Direct) at Schedule 12.

³⁴ The Code clearly leaves the selection of the "majority" to the Commission's discretion. If the General Assembly wanted the Commission to apply a particular approach or evaluation methodology in selecting a majority, it could have directed as such; it did not. As the Commission has previously determined, it is reasonable in this proceeding to select a majority that has an earned return that is close to the market cost of equity capital found fair and consistent with the public interest herein. The Commission does not, and need not, find that this is the only majority that is reasonable. *See, e.g., Application of Virginia Electric and Power Company, For a 2013 biennial review of the rates, terms and conditions for the provision of generation, distribution and transmission services pursuant to § 56-585.1 A of the Code of Virginia*, Case No. PUE-2013-00020, 2013 S.C.C. Ann. Rept. 371, 375-76, Final Order (Nov. 26, 2013).

In sum, the Commission concludes that the fair ROE in this proceeding for Dominion is 9.2%.³⁵ The Commission finds that this ROE is supported by the record, is fair and reasonable to the Company within the meaning of the Code, permits the attraction of capital on reasonable terms, fairly compensates investors for the risks assumed, enables the Company to maintain its financial integrity, and satisfies all applicable constitutional standards.

Accordingly, IT IS SO ORDERED and this matter is dismissed.

AN ATTESTED COPY hereof shall be sent by the Clerk of the Commission to all persons on the official Service List in this matter. The Service List is available from the Clerk of the Commission, c/o Document Control Center, 1300 East Main Street, First Floor, Tyler Building, Richmond, Virginia 23219. A copy also shall be sent to the Commission's Office of General Counsel and Divisions of Public Utility Regulation and Utility Accounting and Finance.

³⁵ Pursuant to Code § 56-585.1:1 C 3, "any adjustment to the fair rate of return for applicable rate adjustment clauses under subdivisions A 5 and A 6 of § 56-585.1 [shall take] effect on the date of the Commission's final order in the proceeding, utilizing rate adjustment clause true-up protocols as the Commission may in its discretion determine." Accordingly, the 9.2% ROE found appropriate herein shall become effective with respect to the Company RACs under Code § 56-585.1 A 5 and A 6 on the date of this Order and any resulting over- or under-recovery shall be addressed through appropriate true-up protocols in future RAC proceedings.

**STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH**

DOCKET NO. W-354, SUB 363
DOCKET NO. W-354, SUB 364
DOCKET NO. W-354, SUB 365

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

DOCKET NO. W-354, SUB 363)
)
In the Matter of)
Application by Carolina Water Service, Inc.)
of North Carolina, 4944 Parkway Plaza)
Boulevard, Suite 375, Charlotte, North)
Carolina, 28217, for an Accounting Order to)
Defer Incremental Storm Damage Expenses)
Incurred as a Result of Hurricane Florence)
)
DOCKET NO. W-354, SUB 364)
)
In the Matter of)
Application by Carolina Water Service, Inc.)
of North Carolina, 4944 Parkway Plaza)
Boulevard, Suite 375, Charlotte, North)
Carolina, 28217, for Authority to Adjust and)
Increase Rates for Water and Sewer Utility)
Service in All of its Service Areas in North)
Carolina)
)
DOCKET NO. W-354, SUB 365)
)
In the Matter of)
Application by Carolina Water Service, Inc.)
of North Carolina, 4944 Parkway Plaza)
Boulevard, Suite 375, Charlotte, North)
Carolina, 28217, for an Accounting Order to)
Defer Post-In-Service Depreciation and)
Financing Costs Related to Major New)
Projects That Are or Will Be In-Service Prior)
to the Date of An Order in Petitioner's)
Pending Base Rate Case)

ORDER GRANTING PARTIAL
RATE INCREASE AND
REQUIRING CUSTOMER NOTICE

HEARD: Thursday, September 5, 2019, at 7:00 p.m., in Courtroom 5350, Mecklenburg County Courthouse, 832 East 4th Street, Charlotte, North Carolina

Tuesday, September 10, 2019, at 7:00 p.m., in Courtroom A, Dare County Courthouse, 962 Marshall C. Collins Drive, Manteo, North Carolina

Tuesday, October 8, 2019, at 7:00 p.m., in Courtroom #1, Watauga County Courthouse, 842 W. King Street, Boone, North Carolina

Wednesday, October 9, 2019, at 7:00 p.m., in Courtroom 1A, Buncombe County Courthouse, 60 Court Plaza, Asheville, North Carolina

Monday, October 14, 2019, at 7:00 p.m., in Commission Hearing Room 2115, Dobbs Building, 430 North Salisbury Street, Raleigh, North Carolina

Tuesday, October 22, 2019, at 7:00 p.m., in the Superior Courtroom, Onslow County Courthouse, 625 Court Street, Jacksonville, North Carolina

Monday, December 2, 2019, at 2:00 p.m., in Commission Hearing Room 2115, Dobbs Building, 430 North Salisbury Street, Raleigh, North Carolina

BEFORE: Commissioner ToNola D. Brown-Bland, Presiding; Chair Charlotte A. Mitchell; and Commissioners Lyons Gray, Daniel G. Clodfelter, Kimberly W. Duffley, and Jeffrey A. Hughes

APPEARANCES:

For Carolina Water Service, Inc. of North Carolina:

Jo Anne Sanford, Sanford Law Office, PLLC, Post Office Box 28085, Raleigh, North Carolina 27611

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

Mark R. Alson, Ice Miller LLP, One American Square, Suite 290, Indianapolis, Indiana 46282-0200

Christina D. Cress, Nichols, Choi & Lee, PLLC, 4700 Homewood Court, Suite 220, Raleigh, North Carolina 27609

In addition to estimating the cost of equity for his Utility Proxy Group of publicly-traded water utilities, witness D'Ascendis attempted to estimate the cost of equity for another proxy group consisting of 10 domestic, non-price regulated companies. The rebuttal results of the DCF, RPM, and CAPM applied to the non-price regulated proxy group are 11.63%, 11.23%, and 10.39%, respectively. The Commission concludes that these results are unreasonably high. Each of these results is higher than witness D'Ascendis' estimates of the cost of equity for his own Utility Proxy Group and deserves no weight. The Commission further concludes that given the difference in these results, the risk of the two groups is not equal and the Utility Proxy Group is more reliable as a proxy for the investment risk of common equity in CWSNC.

After determining that the indicated cost of equity from the DCF, CAPM, and risk premium methods applied to both of his proxy groups equals in his rebuttal 9.80% rate of return on common equity, witness D'Ascendis then adjusted the indicated cost of equity upward by 0.40% to reflect CWSNC's smaller size compared to companies in his Utility Proxy Group. He testified that the size of the company is a significant element of business risk for which investors expect to be compensated through higher returns. Witness D'Ascendis calculated his size adjustment as described in his prefiled direct testimony and stated that even though a 3.94% upward size adjustment is indicated, he applies a 0.40% size premium to CWSNC's indicated common equity cost rate.

Witness Hinton testified that he does not believe it is appropriate to add a risk premium to the cost of equity of CWSNC due to size for several reasons. First, from a regulatory policy perspective, witness Hinton stated that ratepayers should not be required to pay higher rates because they are located in the franchise area of a utility that is arbitrarily considered to be small. Further, if such adjustments were routinely allowed, an incentive would exist for large utilities to form subsidiaries or split-up subsidiaries to obtain higher returns. In addition, he noted that CWSNC operates in a franchise environment that insulates the Company from the competition with procedures in place for rate adjustments for circumstances that impact its earnings. Finally, while witness Hinton stated that while there are studies that address how the small size of a company relates to higher returns, he is aware of only one study that focuses on the size of regulated utilities and risk and that study concluded that utility stocks do not exhibit a significant differential in risk due to size. In rebuttal, witness D'Ascendis maintained that a small size adjustment was necessary based on the results of studies he cited and discussed. He contended that the study concerning size premiums for utilities discussed by witness Hinton was flawed.

The uncontroverted evidence is that both CWSNC and the Public Staff used the Utilities, Inc. capital structure and debt cost in this proceeding. CWSNC obtains all its debt and equity from CWSNC's parent company Utilities, Inc. CWSNC does not participate in the debt markets. The Corix CEO, Gordon Barefoot, testified that Corix, the parent company of Utilities, Inc., provides access to favorable terms for debt financing in capital markets.

Based upon the foregoing and the entire record in this proceeding, the Commission concludes that a size adjustment of 0.40% is not warranted and should not be approved. The Commission determines there is insufficient evidence to authorize an adjustment to the approved rate of return on common equity in this case. The record simply does not indicate the extent to which CWSNC's size alone justifies the added risk premium. While a small water/wastewater utility might face greater risk than a publicly-traded peer group, because for example the service area was confined to a hurricane-prone coastal geographic area, evidence of such factual predicates is absent from the record. CWSNC has water and wastewater systems along the North Carolina coast, in the Piedmont, and in the mountains. The Commission notes that the witnesses also disagreed with respect to whether the studies discussed in the testimony concerning size and risk are reliable or even applicable to regulated utilities. The Commission concludes that the testimony regarding these studies is not convincing and does not support a size adjustment.

Having determined that the appropriate rate of return on common equity based upon the evidence in this proceeding is 9.50%, the Commission notes that there is considerable testimony concerning the authorized returns on equity for water utilities in other jurisdictions. While the Commission has relied upon the record in this proceeding and is certainly aware that returns in other jurisdictions can be influenced by many factors, such as different capital market conditions during different periods of time, settlements versus full litigation, the Commission concludes that the rate of return on common equity trends and decisions by other regulatory authorities deserve some weight as (1) they provide a check or additional perspective on the case-specific circumstances, and (2) the Company must compete with other regulated utilities in the capital markets, meaning that a rate of return significantly lower than that approved for other utilities of comparable risk would undermine the Company's ability to raise necessary capital, while a rate of return significantly higher than other utilities of comparable risk would result in customers paying more than necessary.

Public Staff D'Ascendis Cross-Examination Exhibit 2, which has RRA approved rate of return on common equity listings showing approved return on equity decisions for water utilities across the country from January 2014 through June 30, 2019, is helpful in illustrating that the average rate of return on common equity for water utilities was 9.59% in 2014, 9.79% in 2015, 9.71% in 2016, 9.31% in 2017, 9.45% in 2018, and in the only five reported cases for the first six months of 2019 the average is 9.60%. This authorized return data is generally supportive of the Commission approved return on equity of 9.50% based upon all the evidence in this proceeding.

These factors lead the Commission to conclude that a 9.50% rate of return on common equity is supported by the substantial weight of the evidence in this proceeding. However, to meet its obligation in accord with the holding in *Cooper I*, the Commission will next address the impact of changing economic conditions on customers.

In this case all parties had the opportunity to present the Commission with evidence concerning changing economic conditions as they affect customers. The testimony of witnesses D'Ascendis and Hinton, which the Commission finds entitled to

customers, and that other bills produced, such as final bills, late notices, re-bills, or other miscellaneous bills are not included in the NCUC Form W-1, Item 26 filing; and

17. That the Chief Clerk shall establish Docket No. W-354, Sub 364A as the single docket to be used for all future WSIC and SSIC filings, orders, and reporting requirements and shall close Docket No. W-354, Sub 360A.

ISSUED BY ORDER OF THE COMMISSION.

This the 31st day of March, 2020.

NORTH CAROLINA UTILITIES COMMISSION

A handwritten signature in black ink that reads "Kimberley A. Campbell". The signature is written in a cursive, flowing style.

Kimberley A. Campbell, Chief Clerk

**STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH**

DOCKET NO. E-2, SUB 1131
DOCKET NO. E-2, SUB 1142
DOCKET NO. E-2, SUB 1103
DOCKET NO. E-2, SUB 1153

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

DOCKET NO. E-2, SUB 1131)	
)	
In the Matter of)	
Application by Duke Energy Progress, LLC,)	
for Accounting Order to Defer Incremental)	
Storm Damage Expenses)	
	)	ORDER ACCEPTING
DOCKET NO. E-2, SUB 1142	)	STIPULATION, DECIDING
	)	CONTESTED ISSUES AND
In the Matter of	)	GRANTING PARTIAL RATE
Application by Duke Energy Progress, LLC,	)	INCREASE
For Adjustment of Rates and Charges)	
Applicable to Electric Utility Service in North)	
Carolina)	
)	
DOCKET NO. E-2, SUB 1103)	
)	
In the Matter of)	
Joint Application by Duke Energy Progress,)	
LLC, and Duke Energy Carolinas, LLC, for)	
Accounting Order to Defer Environmental)	
Compliance Costs)	
)	
DOCKET NO. E-2, SUB 1153)	
)	
In the Matter of)	
Petition of Duke Energy Progress, LLC, for an)	
Order Approving a Job Retention Rider)	

HEARD: Tuesday, September 12, 2017, at 7:00 p.m., Richmond County Courthouse,
Courtroom A, 105 W. Franklin Street, Rockingham, North Carolina

Monday, September 25, 2017, at 7:00 p.m., Commission Hearing Room
2115, Dobbs Building, 430 North Salisbury Street, Raleigh, North Carolina

Wednesday, September 27, 2017, at 7:00 p.m., Buncombe County
Courthouse, Courtroom 1A, 60 Court Plaza, Asheville, North Carolina

Wednesday, October 11, 2017, at 7:00 p.m., Greene County Courthouse,
301 N. Greene Street, Snow Hill, North Carolina

Thursday, October 12, 2017, at 7:00 p.m., New Hanover County
Courthouse, 316 Princess Street, Wilmington, North Carolina

Monday, November 27, 2017, at 1:30 p.m., Commission Hearing Room
2115, Dobbs Building, 430 North Salisbury Street, Raleigh, North Carolina

BEFORE: Chairman Edward S. Finley, Jr., Presiding; Commissioners Bryan E.
Beatty,¹ ToNola D. Brown-Bland, Jerry C. Dockham, James G. Patterson,
Lyons Gray, and Daniel G. Clodfelter

APPEARANCES:

For Duke Energy Progress, LLC:

Lawrence B. Somers
Deputy General Counsel
410 South Wilmington Street, NCRH 20
Raleigh, North Carolina 27602

Heather Shirley Smith
Deputy General Counsel
40 West Broad Street, Suite 690
Greenville, South Carolina 29601

Camal O. Robinson, Senior Counsel
Duke Energy Corporation
550 South Tryon Street
Charlotte, North Carolina 28202

John T. Burnett
Deputy General Counsel
Duke Energy Florida
299 1st Avenue N, DEF-151
St. Petersburg, Florida 33701

¹ Commissioner Bryan E. Beatty's term ended before the Commission issued its decision in this proceeding.

Commission approved rate of return on equity for a vertically integrated electric company for the period of 2014 through the hearing in 2017 was 9.2%. Witness Parcell's specific DCF result was 8.85%, witness Polich's was 8.48%, and the mid-point of witness O'Donnell's was 8.25%. The average of Hevert's constant growth DCF means was 8.92%, and the mid-point of the range of witness Hevert's Multi-Stage DCF analysis was 9.0%. The Commission considers all of these DCF results to be outliers, being well below the lowest vertically-integrated rate of return on equity of 9.2%. The Commission determines that all of these DCF analyses in the current market produce unrealistic low results.

The Commission gives no weight to any of the witnesses' CAPM analyses. The analyses of witness Parcell with a mid-point of 6.4% is unrealistically low, and witness Parcell agreed as much in his testimony. The CAPM analysis of witness O'Donnell resulted in a CAPM rate of return on equity mid-point of 6.05%, which is an outlier well below the 9.2% previously discussed. Witness Polich's CAPM weighted median rate of return on equity of 7.56% is also an outlier and unrealistically low. DEP Witness Hevert's CAPM range of 9.15% to 11.49% is also an outlier and upwardly biased due to his use of the near-term projected 30-year Treasury interest rate of 3.52%, which witness Parcell testified greatly exceeds the current level of long-term Treasury of about 2.8%. Witness Hevert's risk premium component of this CAPM uses a constant growth DCF for the S&P 500 companies using analysts projected earnings per share forecasts as the growth component. Witness Hevert's DCF dividend growth, component based solely on analysts' earnings per share growth projections, without consideration of any historical results, is upwardly biased and unreliable.

The rate of return on equity testimonies of Commercial Group witnesses Chriss and Rosa focused on the commission-approved rates of return on equity authorized for vertically-integrated electric utilities in 2014, 2015, 2016, and year-to-date 2017 listed in Commercial Group Exhibit CR-3. The Commission gives weight to this testimony only as a check on the Commission's approved 9.9% rate of return on equity and to evaluate outlier rate of return on equity recommendations. CIGFUR witness Phillips' testimony focused on the RRA report Major Rate Case Decisions. The 9.61% average authorized rate of return on equity for electric utilities included both vertically-integrated electric utilities and distribution-only electric utilities. Since DEP is a vertically-integrated electric utility, the Commission gives witness Phillips' rate of return on equity testimony limited weight regarding authorized rates of return on equity for distribution-only electric utilities. Rather, as noted above, recently authorized rates of return on equity for vertically-integrated electric utilities since 2014 average 9.85%, and in jurisdictions with constructive regulatory environments average 10.03%, and serve as a better check.

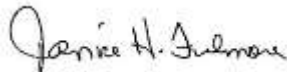
The 9.9% rate of return on equity approved in this proceeding for DEP is also consistent with the 9.9% rate of return on equity the Commission approved for DNCP in the Order dated December 22, 2016, in Docket No. E-22, Sub 532.

The Commission notes further that its approval of a rate of return on equity at the level of 9.9% – or for that matter, at any level – is not a guarantee to the Company that it will earn a rate of return on equity at that level. Rather, as North Carolina law requires, setting the rate of return on equity at this level merely affords DEP the opportunity to

32. That if DEP receives revenue for any deferred cost for a longer period of time than the amortization period approved by the Commission for that deferred cost, the Company shall continue to record all revenue received for that deferred cost in the specific regulatory asset account established for that deferred cost until the Company's next general rate case.

This 23rd day of February, 2018.

NORTH CAROLINA UTILITIES COMMISSION



Janice H. Fulmore, Deputy Clerk

Commissioner ToNola D. Brown-Bland dissents in part.

Commissioner Daniel G. Clodfelter concurs in part, and dissents in part.

Commissioner Charlotte A. Mitchell did not participate in this decision.

**STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH**

DOCKET NO. E-7, SUB 1146
DOCKET NO. E-7, SUB 819
DOCKET NO. E-7, SUB 1152
DOCKET NO. E-7, SUB 1110

DOCKET NO. E-7, SUB 1146)

In the Matter of)
Application of Duke Energy Carolinas, LLC,)
for Adjustment of Rates and Charges)
Applicable to Electric Utility Service in North)
Carolina)

DOCKET NO. E-7, SUB 819)

In the Matter of)
Amended Application by Duke Energy)
Carolinas, LLC, for Approval of Decision to)
Incur Nuclear Generation Project)
Development Costs)

ORDER ACCEPTING STIPULATION,
DECIDING CONTESTED ISSUES,
AND REQUIRING REVENUE
REDUCTION

DOCKET NO. E-2, SUB 1152)

In the Matter of)
Petition of Duke Energy Carolinas, LLC, for)
an Order Approving a Job Retention Rider)

DOCKET NO. E-7, SUB 1110)

In the Matter of)
Joint Application by Duke Energy Progress,)
LLC, and Duke Energy Carolinas, LLC, for)
Accounting Order to Defer Environmental)
Compliance Costs)

HEARD: Tuesday, January 16, 2018, at 7:00 p.m., in the Macon County Courthouse,
Courtroom A, 5 W. Main Street, Franklin, North Carolina

Wednesday, January 24, 2018, at 7:00 p.m., in the Guilford County
Courthouse, Courtroom 1C, 201 S. Eugene Street, Greensboro, North
Carolina

Tuesday, January 30, 2018, at 6:30 p.m., in the Mecklenburg County Courthouse, 832 E. 4th Street, Charlotte, North Carolina

Monday, March 5, 2018, at 1:30 p.m., Commission Hearing Room 2115, Dobbs Building, 430 North Salisbury Street, Raleigh, North Carolina

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

APPEARANCES:

For Duke Energy Carolinas, LLC (DEC):

John T. Burnett, Deputy General Counsel
Duke Energy Corporation
550 South Tryon Street, Charlotte, North Carolina 28202

Heather Shirley Smith, Deputy General Counsel
Duke Energy Corporation
40 W. Broad Street, Suite 690, Greenville, South Carolina 29601

Lawrence B. Somers, Deputy General Counsel
Duke Energy Corporation
P.O. Box 1551, Raleigh, North Carolina 27602

Camal O. Robinson, Senior Counsel
Duke Energy Corporation
550 South Tryon Street, Charlotte, North Carolina 28202

Jack E. Jirak, Associate General Counsel
Duke Energy Corporation
401 S. Wilmington Street, NCRH 20, Raleigh, North Carolina 27601

Kiran H. Mehta
Molly McIntosh Jagannathan
Troutman Sanders LLP
301 S. College Street, Suite 3400, Charlotte, North Carolina 28202

Brandon F. Marzo
Troutman Sanders LLP
600 Peachtree Street NE, Suite 5200, Atlanta, Georgia 30308

In its post-hearing brief, Tech Customers state that while the Stipulation is material evidence entitled to appropriate weight in determining DEC's rate of return on equity and other rate of return inputs, the return approved by the Commission must be justified by substantial, competent evidence in the record as a whole. Tech Customers acknowledge that the 9.9% rate of return agreed to in the Stipulation is comfortably within the range advocated by the parties to the Stipulation, but argues that the Stipulation, standing alone, cannot support the 9.9% recommended return on equity, particularly when the rate at one side of the range lacks any indicia of a rational basis.

Tech Customers state that a utility advocating a rate of return on equity figure that substantially exceeds the output of widely-recognized empirical models and that exceeds recently authorized returns must justify that proposed upward adjustment with a quantitative analysis that shows the applicants risk profile to be materially higher than that of the proxy group. Tech Customers state that its witness Strunk outlined several empirical measures of risk in his testimony and the associated exhibits and none suggests DEC presents a higher risk profile than the proxy group companies. Given the results of the empirical models and the lack of objective evidence by DEC that it presents a higher risk profile than the proxy group warranting an upward departure from these measures, a rate of return on equity of 9.9% is unreasonably high. Accordingly, Tech Customers contend that the evidence presented concerning other authorized rates of return on equity, when put into proper context, lends substantial support to an authorized rate of return on equity of 9.70%.

The Commission has carefully evaluated the DCF analysis recommendations of witnesses Parcell, Hevert, Woolridge, Strunk, and O'Donnell, and the Commission gives limited weight to these analyses. As shown on Commercial Group's Exhibit CR-3, the lowest Commission-approved rate of return on equity for a vertically-integrated electric company for the period of 2015 through 2017 was 9.1%. Witness Parcell's specific DCF result was 8.7%, as stated in AGO witness Woolridge's Supplemental Exhibit JRW-2, p.1, his DCF recommendation was 8.80%, and the mid-point of witness O'Donnell's DCF was 8.5%. The average of Hevert's constant growth DCF means, as stated in Table 11 of his rebuttal testimony, was 8.45%, and the mid-point of the range of witness Hevert's Multi-Stage DCF analysis was 8.78%. The Commission considers all of these DCF results to be outliers, being well below the lowest vertically-integrated authorized rate of return on equity of 9.1%. The Commission determines that all of these DCF analyses in the current market produce unrealistically low results.

The Commission gives no weight to any of the witnesses' CAPM analyses. The analyses of witness Parcell with a mid-point of 6.5% is unrealistically low, and witness Parcell agreed as much in his testimony. The CAPM analysis of witness O'Donnell resulted in a CAPM rate of return on equity mid-point of 6.29%, which is an outlier well below the 9.1% previously discussed. Witness Woolridge's CAPM weighted median rate of return on equity of 7.90% is also an outlier and unrealistically low. DEC Witness Hevert's CAPM range of 9.18% to 11.88% is also an outlier and upwardly biased due to witness Hevert's risk premium component of his CAPM using a constant growth DCF for

the S&P 500 companies solely using analysts projected EPS forecasts as the growth component. Witness Hevert's DCF dividend growth, component based solely on analysts' EPS growth projections, without consideration of any historical results, is upwardly biased and unreliable.

The rate of return on equity testimonies of Commercial Group witnesses Chriss and Rosa focused on the commission-approved rates of return on equity authorized for vertically-integrated electric utilities in 2015, 2016, and 2017 listed in Commercial Group Exhibit CR-3. The Commission gives weight to this testimony only as a check on the Commission's approved 9.9% rate of return on equity and to evaluate outlier rate of return on equity recommendations. CIGFUR III witness Phillips' testimony focused on the RRA report Major Rate Case Decisions, which showed a 9.61% average authorized rate of return on equity for electric utilities including both vertically-integrated electric utilities and distribution-only electric utilities. Since DEC is a vertically-integrated electric utility, the Commission gives witness Phillips' rate of return on equity testimony limited weight regarding authorized rates of return on equity for distribution-only electric utilities. Rather, as stated in Commercial Group Exhibit CR-3, recently authorized rates of return on equity for vertically-integrated electric utilities since 2015 average 9.78%, and in jurisdictions with RRA rated Average 1 constructive regulatory environments, being the same A1 rating as North Carolina, as shown in Hevert Exhibit RBH-R27 for the 16 decisions for vertically integrated electric utilities in the years 2015, 2016, and 2017, the average approved rate of return on equity was 9.93%. These two vertically-integrated electric utilities averages serve as a better check.

The 9.9% rate of return on equity approved in this proceeding for DEC is also consistent with the 9.9% rate of return on equity that the Commission approved for DNCP in the 2016 Rate Order and DEP in the 2018 Rate Order.

The Commission notes further that its approval of a rate of return on equity at the level of 9.9% – or for that matter, at any level – is not a guarantee to the Company that it will earn a rate of return on equity at that level. Rather, as North Carolina law requires, setting the rate of return on equity at this level merely affords DEC the opportunity to achieve such a return. The Commission finds and concludes, based upon all the evidence presented, that the rate of return on equity provided for herein will indeed afford the Company the opportunity to earn a reasonable and sufficient return for its shareholders, while at the same time producing rates that are just and reasonable to its customers.

Capital Structure

DEC originally proposed using a capital structure of 53% members' equity and 47% long-term debt. Tr. Vol. 4, p. 43. The Stipulation provides for a capital structure of 52% equity and 48% long-term debt. For the reasons set forth herein, the Commission finds that a 52/48 capital structure as set out in the Stipulation is just and reasonable.

Witness De May testified that the Company's specific debt/equity ratio will vary over time, depending on the timing and size of debt issuances, seasonality of earnings,

48. That DEC shall submit a proposed customer notice to the Commission for review and approval, and upon approval of the notice by the Commission, shall give appropriate notice of the approved rate adjustment by mailing the notice to each of its North Carolina retail customers during the billing cycle following the effective date of the new rates.

ISSUED BY ORDER OF THE COMMISSION.

This the 22nd day of June, 2018.

NORTH CAROLINA UTILITIES COMMISSION



Linnetta Threatt, Deputy Clerk

Commissioner ToNola D. Brown-Bland concurring in part and dissenting in part.

Commissioner Daniel G. Clodfelter concurring in part and dissenting in part.

Commissioner Charlotte A. Mitchell did not participate in this decision.

Mr. D'Ascendis Return on Equity Recommendations and Authorized Returns on Equity

(June 2019 through September 2022)

Company Name	Case No.	State	D'Ascendis Percent Recommended ROE	Date Authorized	Percent Authorized ROE	Basis Points Authorized ROE Below D'Ascendis
Carolina Water Service, Inc.	W-354 Sub 364	NC	10.20%	6/2019	9.50%	70
Aqua North Carolina Inc.	W-218 Sub 526	NC	10.1.%	12/2019	9.40% (1)	70
Arizona Water Company	W01445A-19-0278	AR	9.73%	12/2019	9.00%	73
Blue Granite Water	2019-290WS	SC	10.00% midpoint	12/2019	7.46%	254
Utilities Inc. Florida	20200139-WS	FL	11.75%	6/2020	9.75%	200
Aqua Virginia	PUR 8020-00106	VA	11.20%	7/2020	9.30% (1)	190
Bluegrass Water Utility	2020-00290	KY	11.80%	10/2020	9.90%	190
EPCOR Water Arizona	WS-0103A-20-0177	AZ	10.24%	2/1/2022	9.83%	41
Aquarion Water Company of New Hampshire, Inc	DW 20-184	NH	10.25%	7/29/2022	9.10% (1)	115
Launiupoko Irrigation Co., Inc.	2020-0217	HI	13.00%	Ongoing		
Utility Services of Illinois, Inc.	21-0198	IL	10.80%	12/1/2021	9.52%	128
Community Utilities of Pennsylvania, Inc.	R-2021-302507	PA	10.35%	1/13/2022	N/A (1)	

Middlesex Water Company	WR21050813	NJ	10.65%	Ongoing		
Utilities, Inc. of Louisiana	U-36003	LA	11.00%	8/4/2022	9.50% (1)	150
Aqua Ohio, Inc.	21-0595-WW-AIR	OH	10.75%	9/21/2022	9.50% (1)	125
Carolina Water Service, Inc.	W-354 Sub 384	NC	10.50%	4/8/2022	9.40% (1)	110
The Maine Water Company	2021-00053	ME	10.25%	Ongoing		
Water Service Corporation of Kentucky	2022-00147	KY	10.60%	Ongoing		
Borough of Ambler - Bureau of Water	2022-3031704	PA	10.75%	11/10/2022	N/A (1)	

(1) Result is product of settlement/stipulation

Mr. D'Ascendis Return on Equity Recommendations and Authorized Returns on Equity 2015 through 2019 Year-to-Date

Company Name	Case Number	State	D'Ascendis Percent Recommended ROE	Date Authorized	Percent Authorized ROE	Basis Points D'Ascendis Below Authorized ROE
Middlesex Water Company	WR15030391	NJ	10.40	7/27/2015	9.75 ⁽¹⁾	65
Utility Services of Illinois, Inc.	14-0741	IL	N/A	9/22/2015	N/A ⁽¹⁾	
Carolina Water Service, Inc.	2015-199-WS	SC	10.00-10.50	12/22/2015	9.34 ⁽¹⁾	91
Aqua Indiana, Inc. Aboite Wastewater Division	44752	IN	10.15-10.70	8/4/2016	9.70 ⁽¹⁾	72
Aqua Ohio, Inc.	16-0907-WW-AIR	OH	10.25-10.65	2/14/2017	9.87 ⁽¹⁾	58
Raccoon Creek Utility Operating Company, Inc.	SR-2016-0202	MO	15.75	10/17/2016	12.15 ⁽¹⁾	360
Aqua Illinois, Inc.	17-0259	IL	10.85	3/2/2018	9.60 ⁽¹⁾	125
Aqua Virginia, Inc.	PUR-2017-00082	VA	10.60	10/19/2018	9.25 ⁽¹⁾	135
Columbia Water Company	R-2017-2598203	PA	11.30	3/1/2018	N/A ⁽¹⁾	
Middlesex Water Company	WR17101049	NJ	10.70	3/6/2018	9.60 ⁽¹⁾	110
Indian Hills Utility Operating Company, Inc.	WR-2017-0259	MO	15.20	11/21/2017	12.00 ⁽¹⁾	220
Kaupulehu Water Company	2016-0363	HI	11.60	Ongoing		
Carolina Water Service, Inc.	2017-292-WS	SC	10.45-10.95	5/26/2018	10.50	20
Colorado Natural Gas Company	18AL-305G	CO	11.75-11.90	10/10/2018	10.30 ⁽¹⁾	152
SUEZ Water Pennsylvania, Inc.	R-2018-3000834	PA	10.40-11.50	10/10/2028	N/A ⁽¹⁾	N/A
Aqua North Carolina, Inc.	W-218, Sub 497	NC	10.80	12/18/2018	9.70	110
Arizona Water Company - Northern Group	W-01445A-18-0164	AZ	10.80-11.35	8/19/2019	9.33	174
Carolina Water Service, Inc. of North Carolina	W-354, Sub 360	NC	10.80-11.20	2/21/2019	9.75	125
Aqua New Jersey, Inc.	WR18121351	NJ	10.45	5/8/2019	9.60 ⁽¹⁾	85
Carolina Water Service, Inc. of North Carolina	W-354, Sub 364	NC	10.75	Ongoing		

Average Authorized ROE Basis Points below Mr. D'Ascendis Recommended ROE = 127 basis points

N/A: Not Applicable

⁽¹⁾ Result is a product of a settlement/stipulation.

Source: CWSNC Response to Public Staff Data Request 14.2

Note: Where Mr. D'Ascendis recommended a range for ROE, the midpoint of the range used for calculations.

D'Ascendis Proxy Companies
Approved ROEs – Last Three Years

Company	Decision Date	Approved ROE
Illinois American Water Co.	12-13-16	9.80%
Iowa American Water Co.	2-27-17	9.60%
New York American Water Co.	5-18-17	9.10%
Virginia American Water Co.	5-24-17	9.30%
California American Water Co.	3-22-18	9.20%
California Water Service Co.	3-22-18	9.20%
Golden State Water Co.	3-22-18	8.90%
New Jersey American Water Co.	10-29-18	9.60%
West Virginia American Water Co.	2-8-19	9.75%
Kentucky American Water Co.	6-27-19	9.70%
3 Year Average	=	9.42%

Water utility rate case data, Jan. 1, 2021 - Nov. 3, 2022

State	Company	Docket No.	(Water or WW)	Case type	Increase authorized		Return on equity (%)
					Order date	Decision type	
Pennsylvania	Pennsylvania American Water Co.	R-2020-3019369 R-2020-3019371	Water/WW	Base rate case	02/25/21	Settled	NA
Missouri	Missouri American Water Co.	WR-2020-0344 SR-2020-0345	Water/WW	Base rate case	04/07/21	Settled	NA
Idaho	Veolia Water Idaho	SUZ-W-20-02	Water	Base rate case	04/30/21	Settled	NA
New Jersey	Veolia Water New Jersey	D-WR20110729	Water/WW	Base rate case	05/19/21	Settled	9.60
Iowa	Iowa American Water	RPU-2020-0001	Water	Base rate case	06/28/21	Litigated	9.60
Virginia	Aqua Virginia Inc.	PUR-2020-00106	Water/WW	Base rate case	06/22/21	Settled	NA
Connecticut	Connecticut Water Co.	20-12-30	Water	Base rate case	07/28/21	Litigated	9.00
California	California American Water	A-19-07-004	Water	Base rate case	12/30/21	Settled	NA
Illinois	Utility Services of Illinois Inc.	21-0198	Water	Base rate case	12/31/21	Litigated	9.52
New Jersey	Middlesex Water Co.	D-WR 21050813	Water/WW	Base rate case	09/30/21	Settled	9.60
West Virginia	West Virginia American Water Co.	C-21-0369-W-42T C-21-0370-S-42T	Water/WW	Base rate case	02/24/22	Litigated	9.80
Maine	The Maine Water Co. (Biddeford & Saco)	D-2021-00289	Water	Base rate case	04/07/22	Settled	9.70
North Carolina	Carolina Water Service Inc. of North Carolina	W-354 Sub 384	Water/WW	Base rate case	04/08/22	Settled	9.40
Pennsylvania	Aqua	D-R-2021-3027385 D-R-2021-3027386	Water/WW	Base rate case	05/16/22	Litigated	10.00
New Hampsh.	Aquarion Water Co. of New Hampshire Inc.	D-DW-20-184	Water	Base rate case	07/29/22	Settled	9.10
New Jersey	New Jersey-American Water Co. Inc.	D-WR22010019	Water/WW	Base rate case	08/17/22	Settled	9.60
Ohio	Aqua Ohio Inc.	C-21-0595-WW-AIR	Water	Base rate case	09/21/22	Settled	9.50

As of Nov. 3, 2022.

W = water; WW = wastewater.

Source: Regulatory Research Associates, a group within S&P Global Commodity Insights.

2022 Average 9.59

2021 Average 9.46

RRA REGULATORY FOCUS

Authorized water ROEs remain above 2021 levels, based on small dataset

Tuesday, November 8, 2022 10:15 AM ET

By Heike Doerr
Market Intelligence

In the first nine months of 2022, seven water utility rate cases were completed with an average return on equity of 9.59%, as monitored by Regulatory Research Associates.

The Take

* While the average electric and gas authorized ROEs remained near all-time lows in the first nine months of 2022, the average has remained higher than 2021 for the water utility group, albeit based on a small sample set. Base rate proceedings for RRA-tracked water utilities across seven states were completed from January to September, with returns on equity ranging from 9.1% to 10.0%.

* Ten major water utility rate cases were completed in 2021. Cost-of-capital parameters and authorized rate base values were disclosed in just half of these proceedings, however, with an average ROE of 9.46%.

* The average ROE authorized electric distribution-only utilities was 9.13% in rate cases decided in the first nine months of 2022, up from the 9.04% average for full year 2021. The average ROE authorized gas utilities was 9.42% in cases decided in the same period of 2022 versus 9.56% for full year 2021.

For the trailing 12 months ended Sept. 30, 10 water utility rate cases were completed, with the cost of capital parameters disclosed in nine proceedings and the ROE authorization averaging 9.58%.

At the low end, the New Hampshire Public Utilities Commission authorized Eversource Energy subsidiary Aquarion Water Co. of New Hampshire Inc. a 9.1% ROE in a settled proceeding completed in July.

In a litigated proceeding, the Pennsylvania Public Utility Commission authorized Essential Utilities Inc. subsidiaries Aqua Pennsylvania Inc. and Aqua Pennsylvania Wastewater Inc. a 10.0% return on equity, which included a 25-basis-point management performance bonus. The PUC has granted management performance adjustments to ROE in previous rate cases, ranging from 5 to 25 basis points.

As shown in the table below, the common equity component of capital across rate proceedings over the trailing 12 months ended Sept. 30 ranged from 47.78% to 54.56%.

Water utility rate case decisions – trailing twelve months, Sept. 30, 2022

Date	Company	State	ROR (%)	ROE (%)	Common equity as percent of capital	Rate base (\$M)	Test year end
Sep. 21, 2022	Aqua Ohio	OH	6.78	9.50	52.10	265	Dec. 2021
Aug. 17, 2022	New Jersey American Water	NJ	7.01	9.60	54.56	4,146	Jun. 2022
Jul. 29, 2022	Aquarion Water Co. of New Hampshire	NH	7.54	9.10	54.42	29	Dec. 2019
May. 16, 2022	Aqua Pennsylvania Inc.	PA	7.24	10.00	53.95	3,810	Mar. 2023
Apr. 8, 2022	Carolina Water Service Inc. of North Carolina	NC	7.14	9.40	50.20	144	Mar. 2021
Apr. 7, 2022	The Maine Water Co. (Biddeford & Saco Division)	ME	6.29	9.70	50.03	NA	Dec. 2020
Feb. 24, 2022	West Virginia American Water Co.	WV	7.01	9.80	47.97	731	Dec. 2020
Dec. 15, 2021	Middlesex Water Co.	NJ	6.35	9.60	53.00	514	Sep. 2021
Dec. 1, 2021	Utility Services of Illinois Inc	IL	7.19	9.52	47.78	52	Dec. 2022
Nov. 18, 2021	California American Water Co.	CA	NA	NA	NA	668	Dec. 2021
LTM	Average rate award		6.95	9.58	51.56		

As of Nov. 3, 2022.

NA = not applicable or not available; ROR = return on rate base; ROE = return on equity.

Source: Regulatory Research Associates, a group within S&P Global Commodity Insights.

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For additional details regarding water utility rate cases from 2010 through Sept. 30, 2022, please refer to this industry document.

Comparison to electric, natural gas utilities

For electric distribution-only cases, the industry average ROE was 9.13% in the first nine months of 2022 versus 9.04% in full year 2021. There were three electric ROE authorizations year-to-date compared with 10 in full year 2021.

The average authorized ROE for gas utilities was 9.42% in cases decided in the first nine months of 2022 versus 9.56% in full year 2021. Seventeen gas cases included an ROE determination year-to-date in 2022 versus 43 in full-year 2021.

For additional details on electric and natural gas utility rate decisions, refer to US energy ROE authorizations hit all-time lows as macroeconomic pressures mount.

RRA currently evaluates water utility regulation in 25 state jurisdictions and monitors rate proceedings involving rate change requests of \$1.0 million or greater for the 12 largest investor-owned and privately held water utilities. The attached industry document provides data for over 175 rate proceedings currently

accumulated, spanning a period between January 2010 and September 2022. The simple mean is utilized for the return averages. The average equity returns indicated may not represent the returns earned by utilities industrywide as it does not include smaller proceedings and every jurisdiction overseeing water utilities

Regulatory Research Associates is a group within S&P Global Commodity Insights.

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For a complete, searchable listing of RRA's in-depth research and analysis, please go to the S&P Capital IQ Pro Energy Research Library.

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Dec 05 2022

COMMISSION APPROVED COMMON EQUITY RATIOS & ROEs

State	Utility	Docket No.	Order date	Equity Ratio	Return on Equity
IA	Iowa American Water Co.	RPU-2013-0002	2/28/14	52.57%	9.41%
NC	Carolina Water Service of NC	W-354, Sub 338	3/10/14	50.27%	9.75%
NC	Aqua North Carolina	W-218, Sub 383	5/2/14	50.00%	9.75%
HI	Waikoloa Utilities	2011-0331	5/23/14	50.00%	9.89%
NJ	Middlesex Water Co.	WR-13111059	8/18/14	50.71%	9.75%
NY	SUEZ Water New York Inc.	13-W-0295	8/24/14	44.00%	9.20%
NY	SUEZ Water Westchester	13-W-0584	8/24/14	47.00%	9.20%
DE	Tidewater Utilities, Inc.	13-466	8/19/14	50.98%	9.75%
NJ	Aqua New Jersey	WR-14010019	8/20/14	52.47%	9.75%
OH	Aqua Ohio Water Co.	13-2124-WWW-AJR	9/10/14	51.60%	9.80%
NY	SUEZ Water New Rochelle, Inc.	13-W-0889	11/14/14	47.00%	9.20%
Average				49.89%	9.69%
HI	Waikoloa Water	2012-0148	2/19/15	50.00%	9.89%
ME	Maine Water	2014-00349	3/11/15	48.50%	9.50%
IL	Aqua Illinois	14-0419	3/25/15	53.28%	9.81%
HI	Kona Water Service	2013-0375	6/29/15	53.00%	10.10%
NJ	SUEZ Toms River	WR-15020289	8/19/15	53.00%	9.75%
NJ	Middlesex Water Co.	WR-15030391	8/19/15	51.38%	9.75%
NJ	New Jersey American Water Co.	WR-15010035	9/11/15	52.00%	9.75%
NC	Carolina Water Service of NC	W-354, Sub 344	12/7/15	51.00%	9.75%
Average				51.82%	9.79%
VA	Aqua Virginia, Inc.	PUE-2014-00045	1/7/16	49.20%	9.25%
DE	Artesian Water	14-132	1/19/16	50.54%	9.75%
NV	Utilities, Inc. of Central Nevada	15-06083	1/25/16	49.45%	9.50%
WV	West Virginia American Water Co.	15-0678-W-42T	2/24/16	45.84%	9.75%
NC	CWS Systems, Inc.	W-778 Sub 91	2/24/16	51.00%	9.75%
NJ	SUEZ New Jersey Inc.	WR-15101177	4/27/16	53.00%	9.75%
NJ	Aqua New Jersey	WR16010089	6/9/16	52.86%	9.75%
HI	Hawaii Water Service	2015-0230	9/12/16	53.00%	10.1%
IL	Aqua American Water Co.	16-0093	12/13/16	49.80%	9.79%
Average				50.82%	9.71%
NY	SUEZ Water New York	C-16-W-0130	1/27/17	46.00%	9.0%
IA	Iowa American Water	D-RPU-2016-0002	2/27/17	52.04%	9.6%
NY	New York American Water Co.	C-16-W-0259	5/18/17	46.00%	9.1%
VA	Virginia American Water	C-PUE-2015-00097	5/24/17	46.00%	9.3%
NC	Carolina Water Service, Inc. of NC	W-354 Sub 356	11/9/17	52.00%	9.6%
Average				48.43%	9.31%
IL	Aqua Illinois	D-17-0259	3/7/18	53.22%	9.60%
CA	California American Water Co.	A17-04-003	3/22/18	55.39%	9.20%
CA	California Water Service Co	A17-04-006	3/22/18	53.40%	9.20%
CA	Golden State Water Co.	A17-04-002	3/22/18	57.00%	8.90%
CA	San Jose Water Co.	A17-04-001	3/22/18	53.28%	8.90%
NJ	Middlesex Water Co.	D-WR-17-101049	3/24/18	52.75%	9.60%
SC	Carolina Water Service, Inc.	D-2017-292-WS	5/2/18	51.89%	10.50%
NY	SUEZ Water Oswego-Nicols Inc.	C-17-W-0528	7/13/18	46.00%	8.90%
IL	Utility Services of IL, Inc. Water	D-17-1106	9/24/18	52.15%	9.23%
IL	Utility Services of IL, Inc. Water/Water	D-17-1106	9/24/18	52.15%	9.31%
RI	Suez Water Rhode Island	D-R-4800	10/5/18	53.91%	9.40%
NJ	New Jersey American Water	D-WR-17-090985	10/29/18	54.00%	9.60%
MD	Aquarion Water Co. of Mass.	D.P.U. 17-90	10/31/18	47.04%	10.50%
NJ	SUEZ Water New Jersey	D-WR-18050593	11/19/18	54.00%	9.60%
NC	Aqua North Carolina	D-W-218, Sub 497	12/18/18	50.00%	9.70%
CA	Suburban Water Systems	A-18-05-004	12/20/18	60.00%	9.25%
VA	Massachusetts Public Service Corp.	C-PUR-2017-00089	12/31/18	52.19%	9.25%
Average				52.86%	9.46%
HI	Hawaii Water Service	D-2017-0350	1/7/19	53.40%	9.20%
MD	Maryland American Water	C-9487	2/5/19	48.88%	NA
WV	West Virginia American Water Co	C-18-0573-W-42T	2/8/19	49.79%	9.75%
NC	Carolina Water Service of NC	D-W-354, Sub 380	2/21/19	50.91%	9.75%
NJ	Aqua New Jersey	WR-18121351	5/28/19	53.00%	9.60%
KY	Kentucky American Water Co.	2018-00358	6/27/19	48.76%	9.70%
Average				50.75%	9.60%
Average of Annual Averages				50.81%	9.57%
Average Across Years				51.04%	9.57%

Three Year

Source: RRA

Average of 30 ROE decisions 7-1-2016 through 6-30-19 = 9.50%

THE WALL STREET JOURNAL.

Economists Got the Decade All Wrong. They're Trying to Figure Out Why.

The U.S. has enjoyed its longest economic expansion on record without triggering inflation as interest rates remain historically low

by Greg Ip

Dec. 14, 2019 1:00 pm ET



In the fall of 2009, the global financial crisis had only just ended, and interest rates were a mere 0.1%. Peering ahead, economists assumed the recovery would resemble previous recoveries, though a tad slower, and thus rates would start rising the next year and plateau at 4.2% by 2015.

But by the fall of 2010, rates hadn't budged. Like Charlie Brown taking another run at the football, economists gamely made the same forecast that year, and the year after that and the year after that. Rates remained stuck near zero until 2015, a stretch of free money unseen since the 1940s.

When rates started to rise, they didn't come close to levels once considered normal, ending the decade between 1.5% and 1.75%. Private-sector economists now expect them to average 2.4% over the long term, according to Blue Chip Economic Indicators. Judging by the bond market, they might have guessed high again: Ten-year Treasury note yields are just 1.8%—roughly zero, adjusted for inflation.

How could economists have gotten something so basic so spectacularly wrong? What was it about this past decade that made all their predictions go awry?



Fed Chairman Jerome Powell and former chairmen Janet Yellen and Ben Bernanke. The financial crisis was followed by a stretch of free money

Economists have been casting around for the answer, a theory to explain their inability to peer accurately into the months ahead, let alone the years. Such a theory must do more than say “The Federal Reserve did it.” It must explain why growth was the most subdued of any expansion since the 1940s and inflation consistently ran below the Fed’s 2% target, the reasons the Fed kept rates so low.

And, no less difficult, it would have to explain why, in spite of that subdued growth, the U.S. has enjoyed its longest economic expansion on record, one marked by a record-breaking bull market in stocks and unemployment falling to a 50-year low.

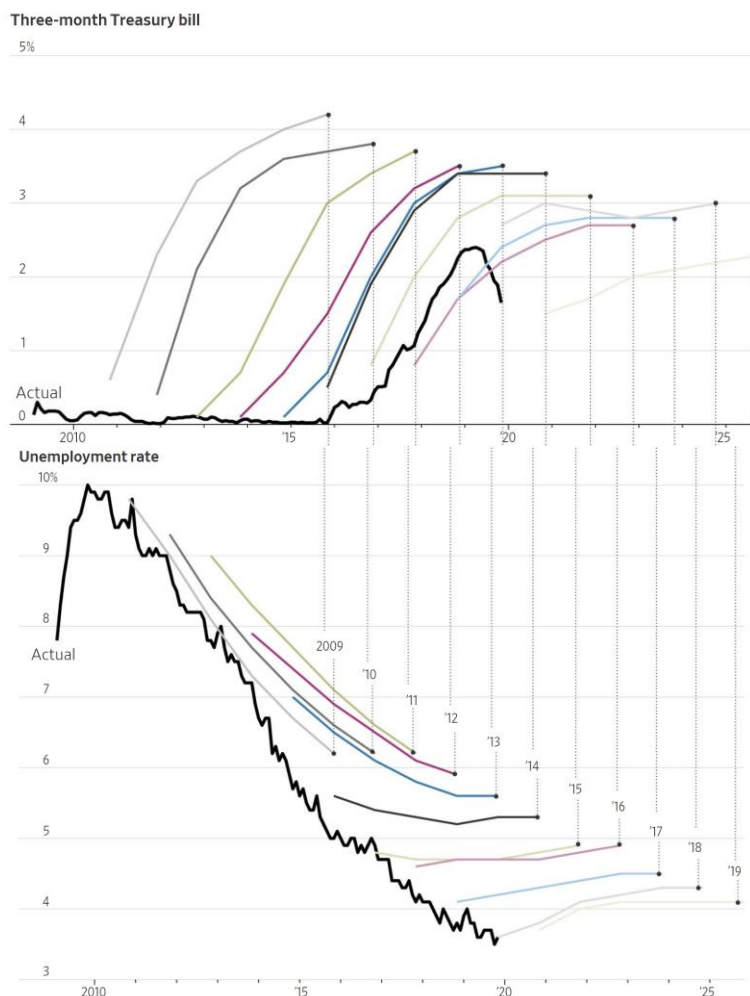
One explanation is the “debt hangover” theory popularized by Carmen Reinhart and Kenneth Rogoff, whose history of financial crises, “This Time Is Different: Eight Centuries of Financial Folly,” was a sleeper hit in 2009. They found that in the wake of financial crises, households, banks, businesses and sometimes governments are fixated on paying down debts and wary that another crisis is around the corner, so they avoid borrowing and investing. This holds down growth, inflation and interest rates.

The U.S. initially tracked this model. It had barely exited its own crisis when another erupted in the eurozone, pushing Greece into default and others to the brink of it.

But as those crises faded from view, low growth, inflation and rates persisted.

A Confounding Decade

Since 2009 economists’ projections of interest rates and unemployment (shown with year made) have consistently proved too high.



Sources: Blue Chip Economic Indicators (forecasts); Federal Reserve Bank of St. Louis (actual T-bill, unemployment rates)

So in 2013 Larry Summers, a former top adviser to Presidents Bill Clinton and Barack Obama and now an economist at Harvard University, advanced an alternative explanation: [“secular stagnation.”](#) He borrowed the phrase from an earlier Harvard economist, Alvin Hansen who used it in 1938 to describe the Great Depression’s persistently weak growth and high unemployment. Mr. Hansen tied it to weak investment due to slow population growth: Businesses had less need to invest when there were fewer new workers and customers and when aging households bought fewer big-ticket products like houses.

Slow population growth is once again weighing on growth and interest rates, Mr. Summers noted, and he added several other factors: the fastest-growing businesses, such as social-media platforms, invest little of their rich profits. Higher inequality meant more income flows to the high-saving, low-spending rich.

Though initially skeptical of Mr. Summers’s thesis, many economists have since warmed to it, at least for other parts of the world, if not the U.S. In some countries like Germany a persistent

excess of savings manifests itself as a trade surplus which flows into other countries' bonds, holding down interest rates around the world.

Secular stagnation has several profound implications. First, with interest rates closer to zero, central banks are less able to combat future recessions. Second, a structural shortage of private borrowing means governments can run big deficits without pushing up interest rates. Indeed, given central banks' lack of ammunition, governments should run deficits, or the economy will stagnate. Reducing entitlements such as future Social Security benefits in the name of fiscal prudence may worsen the problem by encouraging households to save more.

Secular stagnation also increases the risk of protectionism. Any country with too little domestic demand to achieve full employment and 2% inflation will be tempted to foist the problem on its neighbors by cheapening its currency or erecting tariffs so as to export more and import less.

Yet in key respects the past decade doesn't conform to the gloomy prognosis of secular stagnation: The stock market has romped to one record after another, and job growth has remained consistently strong.

As with interest rates, economists have been surprised by unemployment, which peaked at almost 10% in 2010. Year after year, they expected it to bottom out around 5%. It's now down to 3.5%, a 50-year low, and likely headed lower.

The expansion is now the longest since records begin in the mid-1800s. It bears little resemblance to the 1930s, which Mr. Hansen described as "sick recoveries which die in their infancy and...leave a hard and seemingly immovable core of unemployment."



Job seekers and recruiters at a fair in Los Angeles. Economists have been surprised by the continued decline of unemployment.

This points to a third possible theory. The so-called natural rate of unemployment, the lowest the U.S. can sustain without running out of workers or pushing up inflation (called u^* or "u-star" in economists' equations) is much lower than previously thought. So the recovery has had more ground to cover than many realized, and as a result the economy has spent much of the past decade operating well below capacity.

Jan Hatzius, chief economist at Goldman Sachs, says there isn't a lot of mystery about the behavior of inflation and interest rates: "We fell into a deep hole so we had a lot of spare capacity, and it took a long time to climb out."

The U.S. may have finally climbed out, but until Europe has as well, interest rates may remain low, he says. “How secular is it? How cyclical? Until you’ve seen economies really normalize from a cyclical perspective it’s going to be hard to fully distinguish between those two things.”

In other words, it might take the next decade to answer what really happened in the last.

Mr. Ip is The Wall Street Journal’s chief economics commentator, in Washington. He can be reached at greg.ip@wsj.com.

Investment Risk Measures

Group of Water Utility Companies

Company Name	Value Line ¹					S&P ² Beta	S&P ² Quality Ranking	S&P ³ Bond Rating	Moody's ³ Bond Rating
	Safety Rank	Beta	Price Stability	Earnings Predict.	Financial Strength				
1 American States Water	2	0.65	100	95	A	0.32	A	A+	NA
2 American Water Works	3	0.90	80	80	B++	0.43	A	A	Baa1
3 California Water	3	0.70	95	55	B++	0.38	A-	A+	NA
4 Essential Utilities	3	0.95	90	60	B++	-0.14	A	A	Baa2
5 Middlesex Water	2	0.70	85	90	B++	-0.12	A	A	NA
6 SJW Group	3	0.80	85	45	B+	-0.04	B+	A-	NA
Average	2.7	0.78	89	71		0.14			

Sources:

¹ *Value Line Investment Survey*, Standard Edition, October 7, 2022.

² *S&P Global Market Intelligence*, CFRA Stock Report, September 30, 2022 and October 3, 2022.

³ *S&P Global Market Intelligence*, downloaded on October 7, 2022.

Public Staff
Hinton Exhibit 3

Ticker	Company Name	Yield ¹	Value Line ² Historical						Value Line ² Forecast			Yahoo Forecast ³
			EPS	DPS	BPS	EPS	DPS	BPS	EPS	DPS	BPS	EPS
			10-Yr	10-Yr	10-Yr	5-Yr	5-Yr	5-Yr	5-Yr	5-Yr	5-Yr	5-Yr
AWR	1 Amer. States Water	1.9	9.0	9.5	5.5	8.5	8.0	6.0	5.5	9.0	5.5	4.4
AWK	2 Amer. Water Works	1.8	12.0	9.5	4.5	13.5	10.0	5.0	3.0	8.5	8.0	8.3
CWT	3 California Water	1.7	6.5	3.5	6.0	11.0	5.0	7.0	6.5	6.5	5.0	11.7
WTRG	4 Essential Util.	2.4	6.0	7.5	11.0	1.0	7.0	14.0	10.0	8.0	6.0	6.8
MSEX	5 Middlesex Water	1.3	9.5	3.5	6.0	11.0	6.0	9.0	4.5	5.0	2.5	2.7
SJW	6 SJW Group	2.2	6.0	6.5	9.0	-6.5	10.5	11.5	14.0	5.5	4.0	9.8
Average		1.9	8.20	6.70	7.00	6.40	7.80	8.80	7.30	7.10	5.20	7.30
Estimated Cost of Equity			10.1	8.6	8.9	8.3	9.7	10.7	9.2	9.0	7.1	9.2

Sources:

¹ *Value Line Investment Survey* Summary and Index from June 15, 2022 to October 7, 2022.

² *Value Line Investment Survey* Standard Edition, October 7, 2022.

³ Yahoo Earnings Forecast as of October 13, 2022.

REGRESSION ANALYSIS OF ALLOWED RETURNS ON EQUITY

Year	[A] Water Utilities Approved Returns on Equity ¹	[B] Moody's A-Rated Bond Yields ²	[C]=[A]-[B] Water Utility Risk Premium
2009	10.21%	6.04%	4.18%
2010	10.18%	5.47%	4.71%
2011	10.01%	5.04%	4.97%
2012	9.90%	4.13%	5.77%
2013	9.72%	4.48%	5.24%
2014	9.59%	4.28%	5.31%
2015	9.76%	4.12%	5.65%
2016	9.71%	3.93%	5.78%
2017	9.56%	4.00%	5.56%
2018	9.46%	4.25%	5.21%
2019	9.63%	3.77%	5.86%
2020	9.36%	3.02%	6.35%
2021	9.46%	3.11%	6.35%
2022	9.73%	4.24%	5.49%
Average			5.46%

Sources:

¹ *Regulatory Research Associates*, Water Utility Reports, July 28, 2022.

² *Moody's Credit* trends with yield data as of July 31, 2022.

Note:

I excluded the 2020 Blue Granite Water Service Decision by the SC Public Service Commission in Docket No.2019-290-WS Approving a 7.46% ROE because, I believe that it reflects a penalty due to inadequate service.

REGRESSION ANALYSIS OF APPROVED RETURNS ON EQUITY

<i>Regression Statistics</i>	
Multiple R	0.891808
R Square	0.795321
Adjusted R Square	0.778265
Standard Error	0.001227
Observations	14

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	7.01905E-05	7.01905E-05	46.62842	1.82721E-05
Residual	12	1.80638E-05	1.50532E-06		
Total	13	8.82543E-05			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>
Intercept	0.08512436	0.0018191	46.7938749	0.000000
X Variable 1	0.28579915	0.0418539	6.8285006	0.000018

Moody's A-Rated Public Utility Bond Yield	
Apr-22	4.32%
May-22	4.75%
Jun-22	4.86%
Jul-22	4.78%
Aug-22	4.76%
Sep-22	5.28%
Average	4.79%

Predicted Cost of Equity **9.88%**

Note:

Predicted Cost of Equity of 9.88% = 0.08512436 + 0.28579915 * 4.79

Cost of Equity Summary

<u>DCF Method</u>		
Based on Average Historical		9.35%
Based on Historical & Forecasted Growth Rates		9.05%
Based on Predicted Growth Rates		8.60%
	Average	9.00%
<u>Risk Premium Method</u>		
		9.90%
	Average of DCF and Risk Premium	9.45%

Carolina Water Service, Inc. of North Carolina
Cost of Capital as of August 31, 2022
(Without WSIP)

Item	Ratios	Cost Rate	Weighted Cost Rate	Pre-Tax Cost of Capital
Long-Term Debt	50.00%	4.64%	2.32%	2.32%
Common Equity	50.00%	9.45%	4.73%	6.18%
Total	100.00%		7.05%	8.50%
Pre-Tax Interest Coverage				3.7



**NORTH CAROLINA
PUBLIC STAFF
UTILITIES COMMISSION**

August 11, 2021

Ms. A. Shonta Dunston, Chief Clerk
North Carolina Utilities Commission
4325 Mail Service Center
Raleigh, North Carolina 27699-4300

Re: Docket No. G-9, Sub 722 – Petition for Consolidated Construction/Redelivery Agreement; G-9, Sub 781 – Application for General Rate Increase; and G-9, Sub 786 – Application of Piedmont Natural Gas Company, Inc., for Modifications to Existing Energy Efficiency Program and Approval of New Energy Efficiency Programs

Dear Ms. Dunston:

Attached for filing in the above-referenced docket is the confidential testimony and exhibit(s) of John R. Hinton, Director, Economic Research Division.

By copy of this letter, I am forwarding a copy of the redacted version to all parties of record by electronic delivery. The confidential version will be provided to those parties that have entered into a confidentiality agreement.

Sincerely,

Electronically submitted
s/ Elizabeth D. Culpepper
Staff Attorney
elizabeth.culpepper@psncuc.nc.gov

s/ Megan Jost
Staff Attorney
megan.jost@psncuc.nc.gov

Attachment

Executive Director
(919) 733-2435

Accounting
(919) 733-4279

Consumer Services
(919) 733-9277

Economic Research
(919) 733-2267

Energy
(919) 733-2267

Legal
(919) 733-6110

Transportation
(919) 733-7766

Water/Telephone
(919) 733-5610

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

DOCKET NO. G-9, SUB 722

DOCKET NO. G-9, SUB 781

DOCKET NO. G-9, SUB 786

DOCKET NO. G-9, SUB 722

In the Matter of
Consolidated Natural Gas Construction
and Redelivery Services Agreement
Between Piedmont Natural Gas
Company, Inc., and Duke Energy
Carolinas, LLC

DOCKET NO. G-9, SUB 781

In the Matter of
Application of Piedmont Natural Gas
Company, Inc., for an Adjustment of
Rates, Charges, and Tariffs Applicable
to Service in North Carolina

DOCKET NO. G-9, SUB 786

In the Matter of
Application of Piedmont Natural Gas
Company, Inc., for Modification to
Existing Energy Efficiency Program and
Approval of New Energy Efficiency
Programs

TESTIMONY OF
JOHN R. HINTON
PUBLIC STAFF – NORTH
CAROLINA UTILITIES
COMMISSION

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

DOCKET NO. G-9, SUB 722

DOCKET NO. G-9, SUB 781

DOCKET NO. G-9, SUB 786

TESTIMONY OF JOHN R. HINTON

**ON BEHALF OF THE PUBLIC STAFF
NORTH CAROLINA UTILITIES COMMISSION**

AUGUST 11, 2021

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

3 A. My name is John R. Hinton and 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). My qualifications
7 and experience are provided in Appendix A.

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

10 A. The purpose of my testimony is to present to the North Carolina
11 Utilities Commission (Commission) the results of my analysis and
12 my recommendations as to the fair rate of return to be used in
13 establishing rates for natural gas distribution utility service
14 provided by Piedmont Natural Gas Company, Inc. (Piedmont or the
15 Company), and to discuss Piedmont's gas extension practices for

1 residential and commercial customers that involve customer
2 contribution in aid of construction (CIAC) costs.

3 **Q. WHAT IS THE CURRENTLY APPROVED COST OF CAPITAL**
4 **FOR PIEDMONT?**

5 A. In the last Piedmont general rate case (Docket No. G-9, Sub 743),
6 the Commission approved an overall cost of capital of 7.414%,
7 which is comprised of a capital structure ratio of 47.15% long-term
8 debt, 0.85% short-term debt, and 52.00% common equity. The
9 overall weighted cost rate includes 4.41% for long-term debt, 2.72%
10 for short-term debt, and 9.70% cost of common equity.

11 **Q. WHAT IS THE COST OF CAPITAL REQUESTED BY PIEDMONT**
12 **IN THIS PROCEEDING?**

13 A. Piedmont has requested an overall cost of capital or rate of return
14 of 7.27%. This rate of return is based on a capital structure
15 consisting of 47.45% long-term debt, 0.55% short-term debt, and
16 52.00% common equity as noted in the testimony of Company
17 witness Newlin. The overall weighted cost rate includes 4.08% for
18 long-term debt, 0.35% for short-term debt, and 10.25% cost of
19 common equity.

1 **Q. HOW DOES PIEDMONT WITNESS D'ASCENDIS**
2 **DEVELOP HIS RECOMMENDED 10.25% COST OF EQUITY?**

3 A. Company witness D'Ascendis utilizes three cost of equity methods:
4 (1) the Discounted Cash Flow (DCF) model; (2) the Risk Premium
5 method; and (3) the Capital Asset Pricing Model (CAPM). He
6 applies these three methodologies to a proxy group of eight publicly
7 traded natural gas distribution companies. Company witness
8 D'Ascendis also utilizes the cost of equity applied to a proxy group
9 of 47 domestic, non-price regulated companies (Non-Price
10 Regulated Companies). His first method relies on the DCF model
11 which produced a 9.46% cost rate of equity with individual company
12 estimates ranging from 7.22% to 12.39% as shown on page 1 of
13 Schedule DWD-2. The witness includes results from a Risk
14 Premium Model and a similar model that encompasses a "Total
15 Market Approach". Both the Risk Premium Model and the Total
16 Market Approach rely on prospective and current interest rates. The
17 average result of these two models, using prospective interest
18 rates, is 10.11%, and the average result using current interest rates
19 is 9.64% as shown on page 1 of Schedule DWD-3. Company
20 witness D'Ascendis includes results from his CAPM analysis, using
21 prospective interest rates, which generated a cost rate of 12.05%,
22 and using current interest rates, which generated a cost rate of
23 11.83%, as shown on page 1 of Schedule DWD-4. With respect to

1 witness D'Ascendis' DCF, Risk Premium, and CAPM analyses for
2 Non-Price Regulated Companies, he concludes that a 12.18% cost
3 rate using projected interest rates was indicative of the cost of
4 common equity, as shown on page 1 of Schedule DWD-6 . He also
5 opines that the cost of equity should include a 12 basis point adder
6 for flotation costs and ultimately recommends a 10.25% cost rate
7 for common equity based on all of his analyses.

8 **Q. WHAT IS THE OVERALL RATE OF RETURN RECOMMENDED**
9 **BY THE PUBLIC STAFF?**

10 A. The Public Staff recommends an overall rate of return of 6.75%.
11 This is based on a capital structure consisting of 48.80% long-term
12 debt, 0.67% short-term debt, and 50.53% common equity. The
13 overall weighted cost rate includes a 4.08% cost of long-term debt,
14 0.20% for short-term debt, and 9.42% cost of common equity.

15 **Q. HOW IS THE REMAINDER OF YOUR TESTIMONY**
16 **STRUCTURED?**

17 A. The remainder of my testimony is structured as follows:
18 I. Legal and Economic Guidelines for Fair Rate of Return
19 II. Current Financial Market Conditions
20 III. Appropriate Capital Structure and Cost Debt
21 IV. Cost of Common Equity Capital
22 V. Review of D'Ascendis' Testimony

1 VI. Summary and Recommendations

2 VII. Revisions to the Gas Extension Feasibility Model

3 **I. LEGAL AND ECONOMIC GUIDELINES FOR FAIR RATE OF RETURN**

4 **Q. PLEASE BRIEFLY DESCRIBE THE ECONOMIC AND LEGAL**
5 **FRAMEWORK OF YOUR ANALYSIS.**

6 A. Public utilities possess certain characteristics of natural
7 monopolies. For instance, it is more efficient for a single firm to
8 provide a service such as natural gas utility service than for two or
9 more firms to offer the same service in the same area. Therefore,
10 regulatory bodies have assigned franchised territories to public
11 utilities to provide services more efficiently and at a lower cost to
12 consumers.

13 **Q. WHAT IS THE ECONOMIC RELATIONSHIP BETWEEN RISK**
14 **AND THE COST OF CAPITAL?**

15 A. The cost of equity capital to a firm is equal to the rate of return
16 investors expect to earn on the firm's securities given the securities'
17 level of risk. An investment with a greater risk will require a higher
18 expected return by investors. In *Federal Power Com. v. Hope*
19 *Natural Gas Co.*, 320 U.S. 591, 603, (1944) (*Hope*), the United
20 States Supreme Court stated:

21 [T]he return to the equity owner should be
22 commensurate with returns on investments in other
23 enterprises having corresponding risks. That return,
24 moreover, should be sufficient to assure confidence in

1 the financial integrity of the enterprise, so as to
2 maintain its credit and to attract capital.

3 In *Bluefield Waterworks & Improvement Co. v. Public Service*
4 *Comm'n*, 262 U.S. 679, 692-93, (1923) (*Bluefield*) the United States
5 Supreme Court stated:

6 A public utility is entitled to such rates as will permit it
7 to earn a return on the value of the property which it
8 employs for the convenience of the public equal to
9 that generally being made at the same time and in the
10 same general part of the country on investments in
11 other business undertakings which are attended by
12 corresponding risks and uncertainties, but it has no
13 constitutional right to profits such as are realized or
14 anticipated in highly profitable enterprises or
15 speculative ventures. The return should be
16 reasonably sufficient to assure confidence in the
17 financial soundness of the utility, and should be
18 adequate, under efficient and economical
19 management, to maintain and support its credit and
20 enable it to raise the money necessary for the proper
21 discharge of its public duties. A rate of return may be
22 reasonable at one time and become too high or too
23 low by changes affecting opportunities for investment,
24 the money market, and business conditions generally.

25 These two decisions recognize that utilities are competing for the
26 capital of investors and provide legal guidelines as to how the
27 allowed rate of return should be set. The decisions specifically
28 speak to the standards or criteria of capital attraction, financial
29 integrity, and comparable earnings. The *Hope* decision, in
30 particular, recognizes that the cost of common equity is
31 commensurate with risk relative to investments in other enterprises.
32 In competitive capital markets, the required return on common
33 equity will be the expected return foregone by not investing in

1 alternative stocks of comparable risk. Thus, in order for the utility to
2 attract capital, possess financial integrity, and exhibit comparable
3 earnings, the return allowed on a utility's common equity should be
4 that return required by investors for stocks with comparable risk. As
5 such, the return requirements of debt and equity investors, which is
6 shaped by expected risk and return, is paramount in attracting
7 capital.

8 It is widely recognized that a public utility should be allowed a rate
9 of return on capital that will allow the utility, under prudent
10 management, to attract capital under the criteria or standards
11 referenced by the *Hope* and *Bluefield* decisions. If the allowed rate
12 of return is set too high, consumers are burdened with excessive
13 costs, current investors receive a windfall, and the utility has an
14 incentive to overinvest. Likewise, customers will be charged prices
15 that are greater than the true economic costs of providing these
16 services. Consumers will consume too few of these services from a
17 point of view of efficient resource allocation. If the return is set too
18 low, then the utility stockholders will suffer because a declining
19 value of the underlying property will be reflected in a declining value
20 of the utility's equity shares. This could happen because the utility
21 would not be earning enough to maintain and expand its facilities to
22 meet customer demand for service, cover its operating costs, and
23 attract capital on reasonable terms. Lenders will shy away from the

1 company because of increased risk that the utility will default on its
2 debt obligations. Because a public utility is capital intensive, the
3 cost of capital is a very large part of its overall revenue requirement
4 and is a crucial issue for a company and its ratepayers.

5 The *Hope* and *Bluefield* standards are embodied in N.C. Gen. Stat.
6 § 62-133(b)(4), which requires that the allowed rate of return be
7 sufficient to enable a utility by sound management

8 to produce a fair return for its shareholders,
9 considering changing economic conditions and other
10 factors . . . to maintain its facilities and services in
11 accordance with the reasonable requirements of its
12 customers in the territory covered by its franchise, and
13 to compete in the market for capital funds on terms
14 that are reasonable and are fair to its customers and
15 to its existing investors.

16 In *State ex rel. Utils. Comm'n v. Cooper*, 366 N.C. 484, 739 S.E.2d
17 541 (2013) (*Cooper*), the North Carolina Supreme Court reversed
18 and remanded the Commission's Order in Docket No. E-7, Sub
19 989, approving a stipulated return on equity of 10.50% for Duke
20 Energy Carolinas, LLC. In its decision, the North Carolina Supreme
21 Court held that (1) the 10.50% return on equity was not supported
22 by the Commission's own independent findings and analysis as
23 required by *State ex rel. Utils. Comm'n v. Carolina Util. Customers*
24 *Ass'n*, 348 N.C. 452, 500 S.E.2d 693 (1988) (*CUCA I*), in cases
25 involving nonunanimous stipulations, and (2) the Commission must
26 make findings of fact regarding the impact of changing economic

1 conditions on consumers when determining the proper return on
2 equity for a public utility. In *Cooper*, however, the Court's holding
3 introduced a new factor to be considered by the Commission
4 regardless of whether there is a stipulation.

5 In considering this new element, the Commission is guided by
6 ratemaking principles laid down by statute and interpreted by a
7 body of North Carolina case law developed over many years.
8 According to these principles, the test of a fair rate of return is a
9 return on equity that will provide a utility, by sound management,
10 the opportunity to (1) produce a fair profit for its shareholders in
11 view of current economic conditions, (2) maintain its facilities and
12 service, and (3) compete in the marketplace for capital. *State ex rel.*
13 *Utils. Comm'n v. General Tel. Co.*, 281 N.C. 318, 370, 189 S.E.2d
14 705, 738 (1972). Rates should be set as low as reasonably
15 possible consistent with constitutional constraints. *State ex rel.*
16 *Utils. Comm'n v. Pub. Staff-North Carolina Utilities Com.*, 323 N.C.
17 481, 490, 374 S.E.2d 361, 366 (1988). The exercise of subjective
18 judgment is a necessary part of setting an appropriate return on
19 equity. *Id.* Thus, in a particular case, the Commission must strike a
20 balance that (1) avoids setting a return so low that it impairs the
21 utility's ability to attract capital, (2) avoids setting a return any
22 higher than needed to raise capital on reasonable terms, and (3)

1 considers the impact of changing economic conditions on
2 consumers.

3 **Q. WHAT IS A FAIR RATE OF RETURN?**

4 A. The fair rate of return is simply a percentage which, when multiplied
5 by a utility's rate base investment, will yield the dollars of net
6 operating income a utility should reasonably have the opportunity to
7 earn. This dollar amount of net operating income is available to pay
8 the interest cost on a utility's debt capital and a return to the
9 common equity investor. The fair rate of return multiplied by the
10 utility's rate base yields the dollars a utility needs to recover in order
11 to earn the investor-required rate of return or cost of capital.

12 **Q. HOW DID YOU DETERMINE THE FAIR RATE OF RETURN THAT**
13 **YOU RECOMMEND IN THIS PROCEEDING?**

14 A. To determine the fair rate of return, I performed a cost of capital
15 study consisting of three steps. First, I determined the appropriate
16 capital structure for ratemaking purposes (i.e., the proper
17 proportions of each form of capital). Utilities normally finance assets
18 with debt and common equity. Because each of these forms of
19 capital have different costs, especially after income tax
20 considerations, the relative amounts of each form employed to
21 finance the assets can have a significant influence on the overall
22 cost of capital, revenue requirements, and rates. Thus, the

1 determination of the appropriate capital structure for ratemaking
2 purposes is important to the utility and to ratepayers. Second, I
3 determined the cost rate of each form of capital. The individual debt
4 issues have contractual agreements explicitly stating the cost of
5 each issue. The embedded annual cost of debt is calculated by
6 considering these agreements and the utility's books and records
7 over the life of the bond. The cost of common equity is more difficult
8 to determine because it is based on the investor's opportunity cost
9 of capital, and there are no defined terms associated with the
10 investment. Various economic and financial models or methods are
11 available to measure the cost of common equity. Third, by
12 combining the appropriate capital structure ratios for ratemaking
13 purposes with the associated cost rates, I calculated an overall
14 weighted cost of capital or fair rate of return.

15 **II. CURRENT FINANCIAL MARKET CONDITIONS**

16 **Q. CAN YOU BRIEFLY DESCRIBE CURRENT FINANCIAL MARKET**
17 **CONDITIONS?**

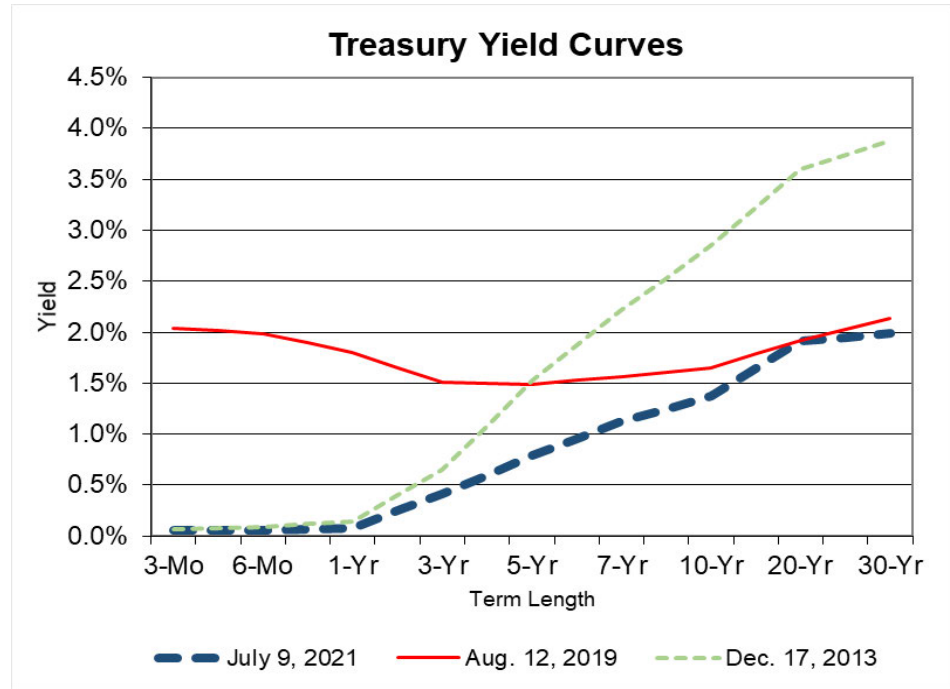
18 A. Yes. The cost of financing is much lower today than in the more
19 inflationary period of the 1990s and the cost of debt capital has
20 stayed approximately the same since Piedmont's last rate case in
21 2019. According to Moody's Bond Survey, the yield on long-term "A"
22 rated public utility bonds, as of July 2021, is 2.95% as compared to

1 3.69% observed for month-ending July 2019 (when the Public Staff
2 was in settlement discussions with Piedmont in Docket No. G-9, Sub
3 743). The month-ending yields on A-rated utility bonds dipped to
4 3.29% in August 2019, averaged 3.15% for the first quarter of 2021,
5 and averaged 3.26% for the second quarter of 2021. This suggests
6 that the cost of debt capital is slightly lower than it was at the time of
7 Piedmont's last general rate proceeding.

8 More recently, observed annual inflation rates have increased; the
9 overall PCE Index (Personal Consumption Expenditure Index)
10 jumped to 4.0% in June 2021 from 1.6 in February 2021. There have
11 been similar increases in the CPI-U (Consumer Price Index –
12 Urban). A key question today is whether these recent increases in
13 inflation are predictors of future inflationary trends or temporary price
14 changes caused by pent-up consumer demand and bottlenecks in
15 the supply chain.¹ At this time, contemporaneous increases have yet
16 to transpire in the utility bond market, as the increases in yields have
17 been moderated as illustrated in Hinton Exhibit I. A-rated utility bond
18 yields have fallen by 49 basis points from their high of 3.44% in
19 March to 2.95% in July. Since the Company's last general rate case
20 in 2019 and, especially since the Company's 2013 rate case, there

¹ Alan S. Binder, "Don't Worry Too Much About the Inflation Surge," Wall Street Journal, July 7, 2021.

1 have been declines in the long-end and short-end of the yield curve
2 shown below.²



3

4 **Q. DID YOU RELY ON INTEREST RATE FORECASTS IN YOUR**
5 **INVESTIGATION?**

6 A. No. While I believe forecasts of earnings and dividends influence
7 investor behavior, I generally do not believe interest rate forecasts to
8 be reliable in determining the cost of equity. Rather, I believe that
9 current interest rates, especially in relation to yields on long-term
10 bonds, are more appropriate for ratemaking. This is because it is
11 reasonable to expect that as investors are pricing bonds they are
12 basing their expected inflation-adjusted return on current interest

² Federal Reserve, H15 Selected Interest Rates. <https://www.federalreserve.gov/releases/h15/>

1 rates and future inflationary expectations among other factors. To
2 suggest the current bond yields do not reflect expectations of future
3 interest rate levels suggests that investors do not utilize projections
4 of future interest rates in their decision making or that the bond
5 market is not efficient. I do not think either position is true.

6 While I am confident in the market's ability to reasonably weight
7 forecasts of future interest rates, I am less confident in the use of
8 interest rate forecasts for utility rate cases because I have seen
9 numerous interest rate forecasts that do not materialize as expected.

10 An example of this is the reliance, in part, of cost of capital witness
11 Hevert in Duke Energy Carolinas' 2013 rate case, Docket No. E-7,
12 Sub 1026, relied upon predicted 30-year treasury yields published by
13 Blue Chip Financial Forecasts³ for his CAPM and Risk Premium
14 analyses. The December 1, 2012 Blue Chip Financial Forecasts
15 predicted that the average 30-year treasury yields would rise to 5.5%
16 by 2018. However, this long-term forecast was over 200 basis points
17 higher than the actual average 30-year treasury yields observed for
18 2018. In the 2017 rate case of Duke Energy Carolinas, Docket No.
19 E-7, Sub 1146, witness Hevert used projected 30-year treasuries
20 with a yield of 3.40%.⁴ However, while the forecast errors associated

³ Company response to Public Staff Data Request Number 36-13. The source of the forecast is noted Tr. vol. 2, 85, Docket No. E-7, Sub 1026, pp. 85-86.

⁴ See Order Accepting Stipulation, Deciding Contested Issues, and Requiring Revenue Reduction, *Application of Duke Energy Carolinas, LLC, for Adjustment of Rates and Charges Applicable to Electric Utility Service in North Carolina*, Docket No. E-7, Sub

1 with these projected 30-year treasury securities were smaller, this
2 predicted yield for 2019 was still over 140 basis points larger than
3 the actual yields observed in 2019.

4 Another example is the interest rate prediction of Aqua North
5 Carolina, Inc.'s (Aqua) rate of return witness Pauline Ahern in the
6 2013 Aqua rate case, Docket No. W-218, Sub 363.⁵ Ms. Ahern
7 testified to several forecasts of 30-year Treasury bond yields that
8 were predicted to rise to 4.3% in 2015, 4.7% in 2016, 5.2% in 2017,
9 and 5.5% for 2020-2024.⁶ As illustrated in the graph below, these
10 forecasts significantly over-estimated the actual interest rates for 30-
11 year Treasury bonds.

1146, at 39, (N.C.U.C. June 22, 2018), reversed on other grounds, *State ex rel. Utils. Comm'n v. Stein*, 375 N.C. 870, 851 S.E.2d 237 (2020).

⁵ In 2013, Ms. Ahern was a Principal with AUS Consultants. She is currently Executive Advisor at ScottMadden, Inc., the same firm as Piedmont witness D'Ascendis.

⁶ T vol. 2, 13-14, Docket No. W-218, Sub 363.



In addition, the tendency of economists to make poor interest rate predictions in the last ten years was addressed in a December 14, 2019 Wall Street Journal article entitled, “Economists Got the Decade All Wrong. They’re Trying to Figure Out Why”, and attached as Hinton Exhibit 2. The foregoing examples illustrate why I tend to place more weight in current market interest rates that are inherently forward looking as they reflect investor expectations of both current and future returns on bonds, and to an extent, future rates of inflation.

III. APPROPRIATE CAPITAL STRUCTURE AND COST OF DEBT

Q. WHAT IS CAPITAL STRUCTURE AND HOW IS IT APPROVED FOR RATEMAKING PURPOSES AFFECTS RATES?

1 A. Typically, a local distribution company (LDC) obtains external capital
2 from investors by borrowing debt and issuing common equity.
3 However, Piedmont obtains its equity capital from its parent
4 company Duke Energy Corporation (Duke Energy). The capital
5 structure is simply a representation of how a utility's assets are
6 financed. It is the relative proportions or ratios of debt and common
7 equity to the total of these forms of capital.

8 Debt and equity capital have different costs. Common equity is far
9 more expensive than debt for ratemaking purposes for two reasons.
10 First, as mentioned earlier, there are income tax considerations.
11 Interest on debt is deductible for purposes of calculating income
12 taxes. The cost of common equity, on the other hand, must be
13 “grossed up” to allow the utility sufficient revenue to pay income
14 taxes and to earn its cost of common equity on a net or after-tax
15 basis. Therefore, the amount of revenue the utility must collect from
16 ratepayers to meet income tax obligations is directly related to both
17 the common equity ratio in the capital structure and cost of
18 common equity. A second reason for this cost difference is that the
19 cost of common equity must be set at a marginal or current cost
20 rate. Conversely, the cost of long-term debt is set at an embedded
21 rate because the utility is incurring costs that are previously
22 established in contracts with security holders.

1 Because the Commission has the duty to promote economical
2 utility service, it must decide whether or not a utility's requested
3 capital structure is appropriate for ratemaking purposes. An
4 example of the cost difference between debt and equity can be
5 seen in the Company's filing. Based upon the Company's
6 requested capital cost rates, each dollar of its common equity and
7 each dollar of its long-term debt that supports the retail rate base
8 have the following approximate annual costs (including income tax
9 and regulatory fee expense) to ratepayers: each dollar of common
10 equity costs ratepayers approximately 12 cents; and each dollar of
11 long-term debt costs ratepayers approximately four cents.

12 Because of the capital cost differences, an appropriate capital
13 structure for ratemaking purposes should be fair to both ratepayers
14 and the utility's debt and equity investors. An appropriate capital
15 structure should contain balances of debt and equity that provide
16 capital cost and income tax savings without a corresponding
17 increase in the overall cost of capital due to the increased financial
18 risk. Therefore, a concern with the Company's capital structure is
19 that the debt and equity ratios adopted in determining the overall rate
20 of return on rate base investment should be no greater than required
21 to allow Piedmont to qualify for reasonable credit ratings and to
22 provide the ability to attract capital.

1 Q. WHY IS THE APPROPRIATE CAPITAL STRUCTURE
2 IMPORTANT FOR RATEMAKING PURPOSES?

3 A. For companies that do not have monopoly power, the price that an
4 individual company charges for its products or services is set in a
5 competitive market, and that price is generally not influenced by the
6 company's capital structure. However, the capital structure that is
7 determined to be appropriate for a regulated public utility, which has
8 a monopoly, has a direct bearing on the fair rate of return and
9 revenue requirement, and the prices charged to captive ratepayers.

10 Q. WHAT CAPITAL STRUCTURE HAS THE COMPANY
11 REQUESTED IN THIS CASE?

12 A. Company witness Newlin proposes the use of a hypothetical capital
13 structure of 47.45% long-term debt, 0.55% short-term debt, and
14 52.00% common equity as shown on Exhibit KWN-1 of the
15 Company's Application. Witness Newlin's proposal is derived by
16 averaging the actual capital structure as of December 31, 2020,
17 with three projected capital structures as of March 31, 2021,
18 December 31, 2021, and December 31, 2022.

19 Q. DO YOU SUPPORT THE HYPOTHETICAL CAPITAL
20 STRUCTURE PROPOSED BY COMPANY WITNESS NEWLIN?

21 A. No. I have concerns with the heavy reliance on projected balances
22 of debt and equity capital, as compared to the traditional use of a

1 historical test year capital structure. Furthermore, I am concerned
 2 that the use of a 52.00% common equity ratio and 48.00% debt
 3 ratio (combined long-term debt and short-term debt ratios) provides
 4 an excessive percentage of equity that is not necessary to maintain
 5 the Company's credit ratings, and is not reflective of Piedmont's
 6 historical capitalization ratio. As of March 31, 2021, Moody's
 7 creditworthiness metric, Cash Flow from Operations (pre-working
 8 capital) divided by Piedmont's Debt yielded a **[BEGIN**
 9 **CONFIDENTIAL]** [REDACTED] **[END CONFIDENTIAL]** times, which is in
 10 alignment with Moody's expectations. Shown below are Moody's
 11 calculations of the Cash Flow metric and the Debt to Book
 12 Capitalization metric for Piedmont, both of which include the
 13 Company's long-term and short-term debt balances.

14 **[BEGIN CONFIDENTIAL]**

Moody's Financial Scorecard	Cash Flow from Operations / Debt	Debt / Book Capitalization
Mar. 31, 2021	[REDACTED] times	[REDACTED] %
Dec. 31, 2020	[REDACTED] times	[REDACTED] %
Dec. 31, 2019	[REDACTED] times	[REDACTED] %
Dec. 31, 2018	[REDACTED] times	[REDACTED] %

15

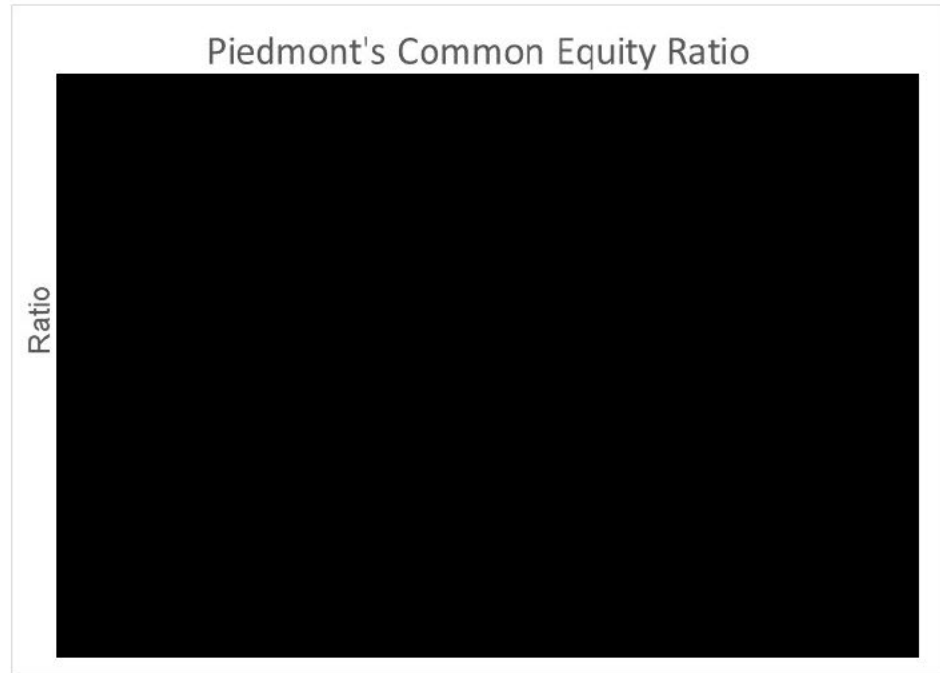
16 **[END CONFIDENTIAL]**

1 The fact that Piedmont's average Cash Flow metric is above
2 **[BEGIN CONFIDENTIAL] [REDACTED] [END CONFIDENTIAL]**
3 suggests that Piedmont does not require a 52.00% common equity
4 ratio in order to maintain its "A3" credit rating with a "Stable" outlook
5 as indicated by Hinton Exhibit 3, the most current Moody's
6 Investors Service report for Piedmont. Included in Exhibit 3, is a
7 February 9, 2021 credit ratings report by S&P Global Ratings on the
8 Company, which assigns an Issuer Credit Rating of BBB+.

9 Shown below is a graph of Piedmont's common equity ratio since
10 its merger with Duke Energy in October 2016. The graph illustrates
11 that the Company's average balance of equity has hovered around
12 **[BEGIN CONFIDENTIAL] [REDACTED] [END CONFIDENTIAL]** which is
13 very close to the 13-month test year average common equity ratio.

1

[BEGIN CONFIDENTIAL]



2

3

[END CONFIDENTIAL]

4 **Q. WHAT APPROACH DO YOU RECOMMEND TO DETERMINE A**
5 **REPRESENTATIVE AND REASONABLE CAPITAL**
6 **STRUCTURE?**

7 A. I recommend a capital structure for ratemaking purposes based on
8 a 13-month historical average of long-term debt, short-term debt,
9 and common equity, as opposed to using projected capital structure
10 as proposed by Company witness Newlin. More specifically, to
11 determine the capital structure, I averaged common equity, long-
12 term debt, and short-term debt balances as of May 31, 2020,
13 through May 31, 2021.

1 Q. WHAT CAPITAL STRUCTURE DO YOU RECOMMEND THE
2 COMMISSION EMPLOY FOR RATE MAKING PURPOSES?

3 A. As shown on Page 1 of Hinton Exhibit 4, I recommend that the
4 following capital structure be employed for ratemaking purposes in
5 this proceeding:

6 Piedmont Natural Gas Capital Structure
7 Thirteen-Month Average as of May 31, 2021
8 (\$1,000)

9	Capital Item	Amount	Ratios
10	Long-Term Debt	\$ 2,707,488	48.81%
11	Short-Term Debt	37,199	0.65%
12	<u>Common Equity</u>	<u>2,803,794</u>	<u>50.54%</u>
13	Total Capital	\$ 4,248,617	100.00%

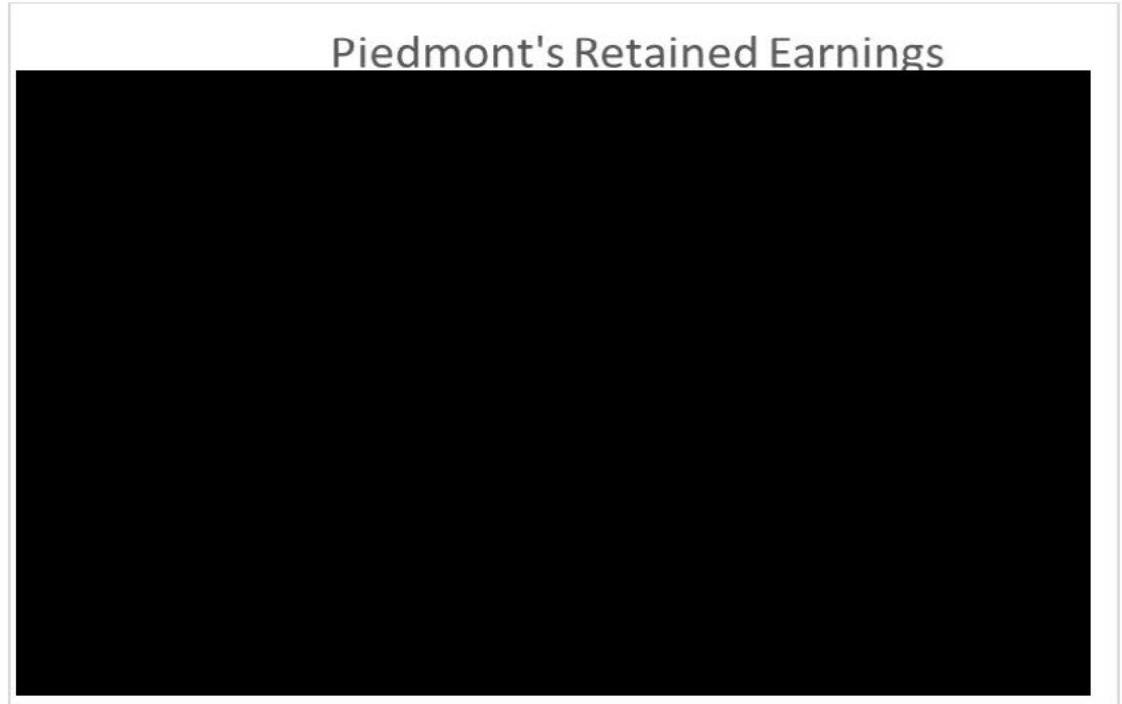
14 Confidential Page 2 of Exhibit 4 presents the underlying capital
15 account balances, the test year balance of long-term debt which is
16 comprised of the outstanding long-term debt of [BEGIN
17 CONFIDENTIAL] [REDACTED] [END CONFIDENTIAL] minus
18 the balance for the unamortized debt issuance expense throughout
19 the 13-month period from May 31, 2020, through May 31, 2021. It is
20 noteworthy that the balance of long-term debt includes an
21 additional [BEGIN CONFIDENTIAL] [REDACTED]
22 [REDACTED] [END CONFIDENTIAL].

23 Hinton Exhibit 4 presents the account balances that comprise
24 common equity. The Commission should note the [BEGIN
25 CONFIDENTIAL] [REDACTED] [END CONFIDENTIAL] of the

1 Company's retained earnings: from [BEGIN CONFIDENTIAL]
2 [REDACTED] [END CONFIDENTIAL] for month-ending May
3 2020, [BEGIN CONFIDENTIAL] [REDACTED] [END CONFIDENTIAL]
4 to [BEGIN CONFIDENTIAL] [REDACTED] [END
5 CONFIDENTIAL] for May 2021. The Company's compound annual
6 average growth in retained earnings over the past four years (Dec.
7 2016-Dec. 2020) has been approximately [BEGIN
8 CONFIDENTIAL] [REDACTED] [END CONFIDENTIAL] as compared to a
9 pre-merger growth rate of [BEGIN CONFIDENTIAL] [REDACTED] [END
10 CONFIDENTIAL] over the four years (Dec. 2011-Dec. 2015) prior
11 to the merger as shown below. It should be noted that the growth in
12 retained earnings is partially explained by the absence of any
13 dividends being paid to Duke Energy.

1

[BEGIN CONFIDENTIAL]



2

3

[END CONFIDENTIAL]

4

Piedmont's other comprehensive income played a relatively small

5

role in the test year balance of common equity. The balance of the

6

Company's paid in capital of includes a [BEGIN CONFIDENTIAL]

7

[REDACTED] [END

8

CONFIDENTIAL]. Piedmont's capital structure is similar to that

9

observed in the 2019 rate case, Docket No. G-9, Sub 743, where

10

an issuance of long-term debt included a contemporaneous

11

infusion of common equity.

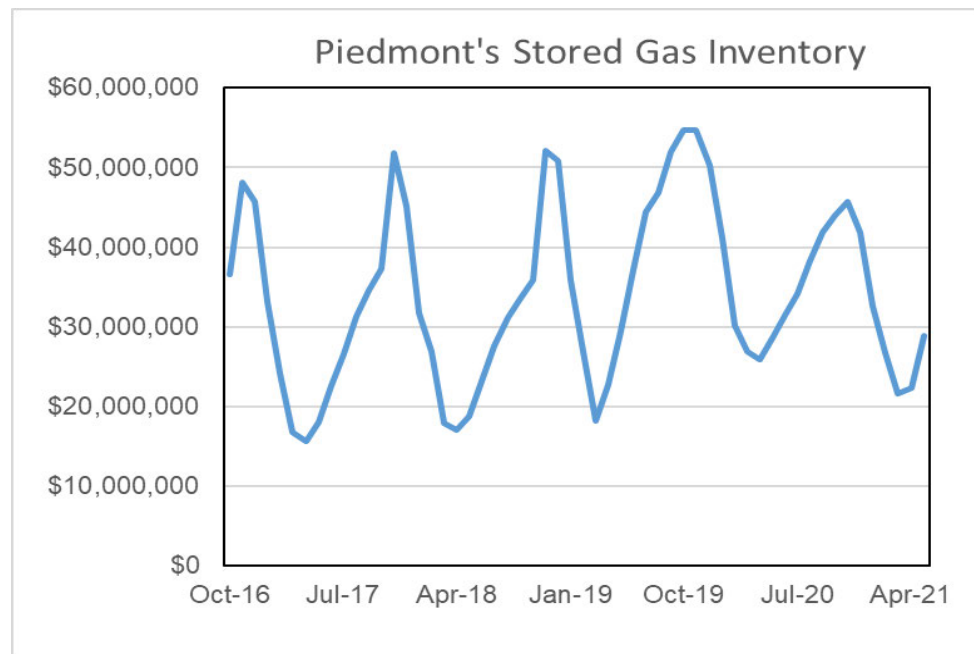
12

To determine the appropriate balance of short-term debt, I

13

recommend it be set at the Public Staff's recommended dollar value

1 of stored gas inventory⁷ to be included in rate base of
 2 \$36,227,098.⁸ The graph below shows the seasonality of
 3 Piedmont's gas inventory. Since short-term debt finances gas
 4 inventory, matching the amount of short-term debt included in the
 5 capital structure to the gas inventory in the rate base establishes a
 6 reasonable amount of short-term debt for ratemaking purposes.
 7 Furthermore, this approach better aligns the actual financing cost of
 8 the gas inventory in rate base.



9

⁷ This use of gas inventory as a proxy for short-term debt was upheld by the North Carolina Supreme Court in *State ex rel. Utilities Comm'n v. Carolina Util. Customers Ass'n*, 351 N.C. 223, 524 S.E.2d 10 (2000).

⁸ As recommended by Public Staff witness Feasel, Exhibit I, Schedule 2-2.

1 **Q. WHAT ARE YOUR RECOMMENDED COST RATES OF**
2 **LONG-TERM AND SHORT-TERM DEBT?**

3 A. I recommend the use of the Company's updated 4.08% cost rate of
4 long-term debt as of May 31, 2021, and a 0.20% cost rate of short-
5 term debt. The short-term cost is based on the 13-month average
6 spread between the prime rate and the Company's cost of short-
7 term debt over the 13 months ending May 31, 2021, producing an
8 average spread of 305 basis points. I then deducted 305 basis
9 points from the current 3.25% prime rate to produce the 0.20% cost
10 rate of short-term debt.

11 **IV. COST OF COMMON EQUITY CAPITAL**

12 **Q. HOW DO YOU DEFINE THE COST OF COMMON EQUITY**
13 **CAPITAL?**

14 A. The cost of equity capital for a firm is the expected rate of return on
15 common equity that investors require in order to induce them to
16 purchase shares of the firm's common stock. The return is
17 expected or forward-looking because the investor buys a share of
18 the firm's common stock and does not know with certainty what his
19 returns will be in the future. Furthermore, the cost of capital reflects
20 opportunity costs; in that the investor foregoes the opportunity to
21 invest in other comparable risk investments.

1 **Q. HOW DID YOU DETERMINE THE COST OF COMMON EQUITY**
2 **CAPITAL FOR THE COMPANY?**

3 A. I used the DCF model and a regression analysis of approved returns
4 for LDCs and diversified gas companies with local distribution
5 utilities to determine the cost of equity. As a check method, I
6 performed a Comparable Earnings Analysis on my group of
7 comparable companies.

8 **A. DCF METHOD**

9 **Q. PLEASE DESCRIBE YOUR DCF ANALYSIS.**

10 A. The DCF model is a method of evaluating the expected cash flows
11 from an investment by giving appropriate consideration to the time
12 value of money. The DCF model is based on the theory that the
13 price of the investment will equal the discounted cash flows of
14 returns. The model provides an estimate of the rate of return
15 required to attract common equity financing as a function of the
16 market price of a stock, the company's dividends, and investors'
17 growth expectations. The return to an equity investor comes in the
18 form of expected future dividends and price appreciation. However,
19 as the new price will again be the sum of the discounted cash
20 flows, price appreciation is ignored and attention is instead focused
21 on the expected stream of dividends. Mathematically, this
22 relationship may be expressed as follows:

1 Let D_1 = expected dividends per share over the next twelve
2 months;

3 g = expected growth rate of dividends;

4 k = cost of equity capital; and

5 P = price of stock or present value of the future income
6 stream.

7 Then,

$$8 \quad P = \frac{D_1}{1+k} + \frac{D_1(1+g)}{(1+k)^2} + \frac{D_1(1+g)^2}{(1+k)^3} + \dots + \frac{D_1(1+g)^{t-1}}{(1+k)^t}$$

11 This equation represents the amount an investor would be willing to
12 pay for a share of common stock with a dividend stream over the
13 future periods. Using the formula for a sum of an infinite geometric
14 series, this equation may be reduced to:

$$15 \quad P = \frac{D_1}{k-g}$$

18 Solving for k yields the DCF equation:

$$19 \quad k = \frac{D_1 + g}{P}$$

22 Therefore, the rate of return on equity capital required by investors
23 is the sum of the dividend yield (D_1/P) plus the expected long-term
24 growth rate in dividends (g).

1 **Q. HOW DID YOU APPLY THE DCF MODEL TO DETERMINE**
2 **THE COST OF EQUITY?**

3 A. Since Piedmont is a wholly owned subsidiary of Duke Energy, the
4 Company does not have any publicly traded stock. Therefore, there
5 is no explicit market information to show what investors would pay
6 for the stock. For this reason, I could not apply the DCF method
7 directly to Piedmont. However, the cost of equity capital is not
8 unique to any particular firm. Rather, it is a cost shared by firms
9 whose equity shares are considered by investors to be risk-
10 comparable investments. In order to estimate the required rate of
11 return, I have identified a group of comparable companies whose
12 market information indicates the required investor return for
13 Piedmont.

14 **Q. HOW DID YOU IDENTIFY COMPANIES COMPARABLE IN RISK**
15 **TO PIEDMONT?**

16 A. I began my analysis by reviewing ten companies that are identified by
17 the Value Line Investment Survey Standard Edition (Value Line) as
18 the Natural Gas Company industry group. From this group of
19 companies, I eliminated Nisource, Inc., due to a dividend cut in 2015. I
20 then reviewed the diversified natural gas companies followed by
21 Value Line and found two companies that had were identified as
22 having distribution operations.

1 Q. WHAT MEASURES OF RISK DID YOU REVIEW TO
2 DETERMINE THE COMPARABILITY OF INVESTING IN
3 PIEDMONT WITH INVESTING IN OTHER NATURAL GAS
4 DISTRIBUTION UTILITIES?

5 A. I reviewed standard risk measures that are widely available to
6 investors that are considered by most investors when making
7 investment decisions. The beta coefficient is a measure of the
8 sensitivity of a stock's price to overall fluctuations in the market.
9 The Value Line beta coefficient describes the relationship of a
10 company's stock price with the New York Stock Exchange
11 Composite. A beta value of less than 1.0 means that the stock's
12 price is less volatile than the movement in the market;
13 conversely, a beta value greater than 1.0 indicates that the
14 stock price is more volatile than the market.

15 I reviewed the Value Line Safety Rank, which measures the
16 total risk of a stock. The Safety Rank is calculated by averaging
17 two variables: (1) the stock's index of price stability, and (2) the
18 Financial Strength rating of the company.

19 I also reviewed the S&P and Moody's bond ratings, which are
20 assessments of the creditworthiness of a company. Credit rating
21 agencies focus on the creditworthiness of the particular bond
22 issuer, which includes a detailed and thorough review of the

1 potential areas of business risk and financial risk of the
2 company. These and other risk measures I reviewed are shown
3 in Hinton Exhibit 5, and are further explained in Appendix B to
4 my testimony.

5 **Q. HOW DID YOU DETERMINE THE DIVIDEND YIELD**
6 **COMPONENT OF THE DCF?**

7 A. I calculated the dividend yield by using the Value Line estimate of
8 dividends to be declared over the next 12 months, divided by the
9 price of the stock as reported in the Value Line Summary and Index
10 for each week of the 13-week period from April 30, 2021, through
11 July 23, 2021. A 13-week averaging period tends to smooth out
12 short-term variations in the stock prices. This process resulted in an
13 average dividend yield of 3.2% for the comparable group of LDCs.

14 **Q. HOW DID YOU DETERMINE THE EXPECTED GROWTH RATE**
15 **COMPONENT OF THE DCF?**

16 A. I employed the growth rates of the comparable group in earnings
17 per share (EPS), dividend per share (DPS), and book value per
18 share (BPS) as reported in Value Line over the past five and ten
19 years. I also employed forecasts of future growth rates as reported
20 in Value Line. The historical and forecasted growth rates are
21 prepared by analysts of an independent advisory service widely
22 available to investors and they should also provide an estimate of

1 investor expectations. I included both historical, known growth rates
2 and forecasted growth rates, because it is reasonable to expect
3 that investors consider both sets of data in determining their
4 expectations. I should note that, in calculating an average or
5 median growth rate, I did not include negative historical growth
6 rates in EPS, DPS, and BPS. This is because that while negative
7 growth rates are possible, they are generally not the basis for
8 investor expectations with utility investing.

9 Finally, I incorporated the consensus of various analysts' forecasts
10 of five-year EPS growth rate projections as reported in Yahoo
11 Finance. The dividend yields and growth rates for each of the
12 companies and for the average for the comparable group are
13 shown in Hinton Exhibit 6.

14 **Q. WHAT IS YOUR CONCLUSION REGARDING THE COST OF**
15 **COMMON EQUITY TO THE COMPANY BASED ON THE DCF**
16 **METHOD?**

17 A. Based on my DCF analysis, I determined that a reasonable
18 expected dividend yield is 3.2% with an expected growth rate of
19 5.9% to 6.5%. As such, the analysis produces a cost of common
20 equity for the comparable group of LDCs of 9.1% to 9.7%.

B. REGRESSION ANALYSIS METHOD

Q. PLEASE DESCRIBE YOUR REGRESSION ANALYSIS METHOD.

A. I used a regression analysis to analyze the relationship between approved returns on equity for LDCs and Moody's Bond Yields for A-rated utility bonds, which is a form of the equity risk premium method that examines the risk premium associated with higher-risk investments. The differential between the two rates of return is indicative of the return investors require in order to compensate them for the additional risk. This method considers the return premium associated with an investment in a company's common stock over an investment in a company's bonds.

A strength of this approach is that authorized returns on equity are generally arrived at through lengthy investigations by various parties with opposing views on the rate of return required by investors. Thus, it is reasonable to conclude that the approved returns are good estimates for the cost of equity. The next step is to incorporate a contemporaneous cost of debt. I then use an ordinary least-squares regression model⁹ that can be performed with spreadsheets that have basic statistical functionality.

⁹ The least squares model is a form of mathematical regression analysis that finds the line of best fit that quantifies the relationship between an independent variable(s) and a dependent variable.

1 Q. PLEASE DESCRIBE HOW YOU APPLIED A REGRESSION
2 ANALYSIS TO APPROVED RETURNS ON EQUITY WITH
3 NATURAL GAS UTILITY RATE CASES.

4 A. The method I used relies on approved returns on common equity
5 for natural gas utility companies from various public utility
6 commissions that are published by the Regulatory Research
7 Associates, Inc. (RRA), with S&P Global Market Intelligence and
8 Moody's "A" rated Utility Bond Yields as shown on Page 1 of Hinton
9 Exhibit 7. The Commission relied on this method in Docket No. G-5,
10 Sub 327, a 1994 general rate case of Public Service Company of
11 North Carolina, Inc.¹⁰ The results from the regression analysis in this
12 study and in other studies indicate that there is a high correlation
13 between the cost of equity and utility bond yields.¹¹

14 Q. WHAT WERE THE RESULTS OF YOUR REGRESSION
15 ANALYSIS?

16 A. The results of the regression analysis indicate that the predicted
17 cost of equity is 9.50% as shown on Page 2 of Hinton Exhibit 7. As
18 noted, a statistical regression was performed in order to quantify
19 the relationship of allowed equity returns and bond costs. The

¹⁰ The regression analysis method is also used in the formula rate plans for LDCs regulated by the Mississippi Public Service Commission. See Mississippi Public Service Commission, Mississippi Gas Co., Docket No. 18-UN-0139, Atmos Energy Corporation, Docket No. 05-UN-0503.

¹¹ See Brigham, E., Shome, D., and Vinson, S., 1985. "The Risk Premium Approach to Measuring a Utility's Cost of Equity." Financial Management, Spring 14: 33-45.

1 results of the regression analysis indicate a significant statistical
2 relationship between the approved equity returns and bond costs
3 such that a reduction of 10 basis points in yields corresponds to a
4 decrease of three basis points in return on equity (ROE).¹²
5 Therefore, the regression analysis allows the historical relationship
6 of approved returns on equity and bond yields from 2007 through
7 2021 to be quantified, and then combined with six months of recent
8 yields to derive a predicted 9.50% cost rate for common equity.

9 **C. COMPARABLE EARNINGS METHOD**

10 **Q. PLEASE DESCRIBE YOUR COMPARABLE EARNINGS**
11 **ANALYSIS THAT YOU USE AS A CHECK.**

12 A. My comparable earnings method analysis involves reviewing earned
13 returns on equity for my comparable group of natural gas utilities.
14 This approach is based on the decision in the *Hope* case cited earlier
15 in my testimony, which maintains that an investor should be able to
16 earn a return comparable to the returns available on alternative
17 investments with similar risks.

¹² The regression equation $ROE = 0.079857 + 0.40336$, indicates a significant statistical relationship between Moody's utility bond yields and approved ROEs with an adjusted $R^2 = 0.90860$.

1 **Q. WHAT ARE SOME OF THE STRENGTHS AND**
2 **WEAKNESSES INHERENT IN THE COMPARABLE EARNINGS**
3 **METHOD?**

4 A. A strength of this method is that information on earned returns on
5 common equity is widely available to investors and it is believed that
6 investors use actual earned returns as a guide in determining their
7 expected return on an investment. A weakness is that the earned
8 return on equity may include non-utility income and increased
9 earnings resulting from deferred income taxes. Furthermore, actual
10 earned rates of return on equity can be impacted by factors outside a
11 company's control, such as with weather and inflation. These
12 unforeseen developments can cause a company's earned rate of
13 return on equity to exceed or fall short of its cost of capital during any
14 certain period, which tends to make this method less reliable than
15 other cost of capital methods. For this reason, I use the results of this
16 method as a check on the results of my DCF analysis and Regression
17 Method.

18 **Q. HOW DID YOU APPLY THE COMPARABLE EARNINGS**
19 **METHOD?**

20 A. I examined the historical earned returns and near-term predicted
21 returns of my comparable group of LDCs as reported in Value Line,
22 as shown in Hinton Exhibit 8.

1 Q. WHAT DID YOU CONCLUDE FROM YOUR COMPARABLE
2 EARNINGS ANALYSIS OF THE GROUP OF COMPARABLE
3 NATURAL GAS UTILITIES?

4 A. Based on the earned rates of return, I conclude that the cost of
5 equity using the Comparable Earnings analysis provides a
6 reasonable check on my DCF and Regression Analysis results.
7 Under the Comparable Earnings method, I calculated an average
8 historical earned return of 10.0%, and a median earned return of
9 9.5%. In my opinion, the median calculation is a better measure of
10 central tendency due to the 20.2% earned return by National Fuel
11 Gas and other excessively high earned returns that exceed the
12 Company's cost of common equity. As such, I believe the median
13 earned return of 9.5% is more reflective of investors' expected
14 required returns on equity.

15 Q. WHAT IS YOUR RECOMMENDED COST OF EQUITY BASED ON
16 YOUR OVERALL STUDY?

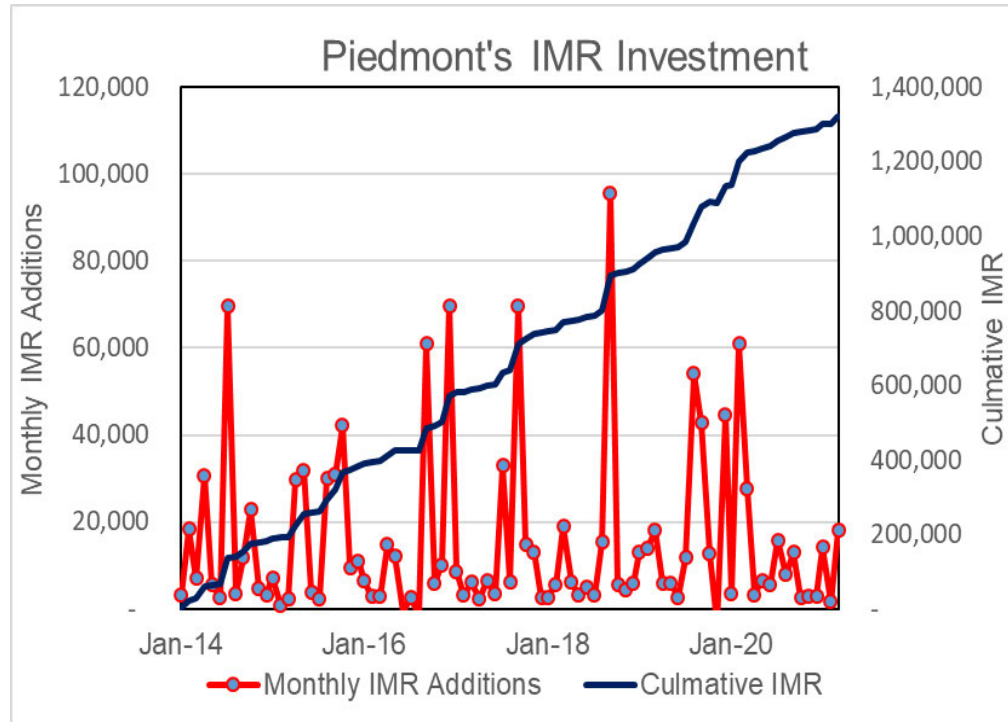
17 A. I recommend a 9.42% cost rate for common equity, as shown in
18 Hinton Exhibit 9, where I average the four results of my two
19 methods. The results of my DCF model produce a cost of equity of
20 9.10% using historical growth rates. If I assume that investors
21 equally weigh historical growth and forecasts, the DCF model
22 produces a 9.35% cost rate of equity. If I assume investors use only
23 predicted growth rates of earnings, dividends, and book value, the

1 DCF model produces a 9.73% cost rate. I combined these results
2 with my Regression Analysis result, a cost of equity of 9.50%, to
3 yield an average cost of equity of 9.42%, which is my
4 recommended cost of common equity for the Company.

5 **Q. WHAT OTHER EVIDENCE DID YOU CONSIDER IN YOUR**
6 **ASSESSMENT OF THE REASONABLENESS OF YOUR**
7 **RECOMMENDED RETURN?**

8 A. In assessing the reasonableness of my recommendation, I
9 considered the pre-tax interest coverage ratio produced by my cost
10 of capital recommendation. Based on the recommended capital
11 structure, cost of debt, and cost of equity, the pre-tax interest
12 coverage ratio is approximately 4.1. This indicator of credit quality
13 suggests that Piedmont has an adequate opportunity to continue to
14 qualify for a single "A" bond rating.

15 My reasonableness assessment also includes acknowledging the
16 continued role that the Integrity Management Rider (IMR) has in
17 reducing regulatory lag, which is seen as a supportive regulatory
18 policy by investors. The graph below shows the additional monthly
19 plant additions associated with the Company's IMR mechanism,
20 which as of March 31, 2021, amounted to approximately \$1.3 billion
21 of additional capital investment since its inception in January 2014.

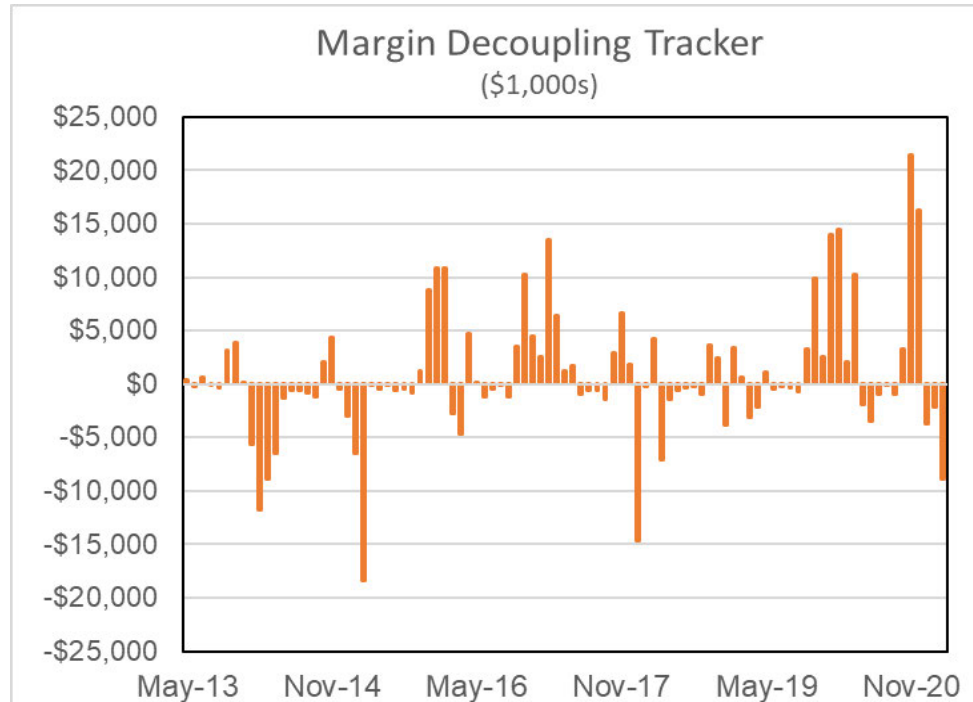


1
2 In addition, I also considered the stabilizing impact on residential
3 and small commercial customers' revenue and on the Company's
4 earnings of the Margin Decoupling Tracker (MDT) that was
5 approved by the Commission in 2008 in Docket No. G-9, Sub
6 550.^{13,14} In large part, the tracker was approved in light of declining
7 customer usage and as a way to eliminate the Company's
8 disincentive to promote conservation. The Commission's Order
9 noted that the MDT would stabilize the Company's margin recovery
10 and reduce the risk to Piedmont and its customers arising from

¹³ Order Approving Partial Rate Increase and Requiring Conservation Program Filing and Reporting, *In the Matter of Application of Piedmont Natural Gas Company, Inc., for a General Increase in its Rates and Charges*, Docket No. G-9, Sub 550 (N.C.U.C. Oct. 24, 2008) (Sub 550 Order).

¹⁴ The Company had a similar mechanism called the Customer Utilization Tracker (CUT) approved in Docket No. G-9, Sub 499.

1 potential variations in usage patterns.¹⁵ The graph below shows the
 2 historical impact of the revenue adjustments associated with the
 3 MDT. The IMR leads to less regulatory lag, which lessens
 4 Piedmont's financial risk, while the MDT significantly reduces
 5 Piedmont's business risks.



6

7 **Q. TO WHAT EXTENT DOES YOUR RECOMMENDED RATE OF**
 8 **RETURN ON EQUITY TAKE INTO CONSIDERATION THE**
 9 **IMPACT OF CHANGING ECONOMIC CONDITIONS ON**
 10 **PIEDMONT'S CUSTOMERS?**

11 A. I am aware of no clear numerical basis for quantifying the impact of
 12 changing economic conditions on customers in determining an

¹⁵ See Sub 550 Order, Finding of Fact No. 24, at 18-19. The MDT affects rate schedules 101, 102, and 152.

1 appropriate return on equity in setting rates for a public utility.
2 Rather, the impact of changing economic conditions nationwide is
3 inherent in the methods and data used in my study to determine the
4 cost of equity for utilities that are comparable to Piedmont. I have
5 reviewed certain information on the economic conditions in the
6 areas served by Piedmont, specifically data on the per capita
7 personal income from the Bureau of Economic Analysis (BEA) and
8 the Development Tier Designations published by the North Carolina
9 Department of Commerce for Piedmont's service territory. The BEA
10 data indicates that from 2017 to 2019, per capita total personal
11 income grew at an annual growth rate of 3.3%, which is slightly
12 lower than 3.7% for the whole state. While more current income
13 data by county is not available, the statewide total personal income
14 grew at an 18% annual growth rate as of the first quarter of 2021.¹⁶
15 In addition, North Carolina's unemployment rate has fallen for the
16 ninth consecutive month to 4.6%¹⁷ in June 2021.

17 The North Carolina Department of Commerce annually ranks the
18 State's 100 counties based on economic well-being and assigns
19 each a Tier designation. The most distressed counties are rated a
20 "1," and the most prosperous counties are rated a "3." The rankings
21 examine several economic measures such as household income,

¹⁶ Bureau of Economic Analysis, Table 1, Personal Income by State and Region, 2019: Q4-2021:Q1.

¹⁷ Bureau of Labor Statistics, Economy at a Glance, <https://www.bls.gov/eag/eag.nc.htm#>

1 poverty rates, unemployment rates, population growth, and per
2 capita property tax base. For 2021, the average Tier ranking for
3 North Carolina counties in Piedmont's service territory was 1.7.
4 However, the Tier ranking is in excess of "2" when the counties are
5 weighted by the Company's regional resource centers; such as with
6 the Charlotte Resource Center that serves over one third of the
7 Company's customers.

8 As discussed previously, the Commission's duty is to set rates as
9 low as reasonably possible consistent with constitutional
10 constraints. This duty exists regardless of the customers' ability to
11 pay. Moreover, the rate of return on common equity is only one
12 component of the rates established by the Commission. General
13 Statute § 62-133 sets out an intricate formula for the Commission to
14 follow in determining a utility's overall revenue requirement. It is the
15 combination of rate base, expenses, capital structure, and cost
16 rates for debt and equity capital, that determines how much
17 customers pay for utility service and investors receive in return for
18 their investment. The Commission must exercise its best judgment
19 in balancing the interests of both groups. My analysis of the income
20 data and the tier rankings indicates that economic conditions are
21 not unduly burdensome for Piedmont's customers. As shown in the
22 income and unemployment data, overall economic conditions have
23 significantly improved from the height of the pandemic. While this is

1 applicable to most of the State and Piedmont's customers, it is true
2 that the economic wellbeing of certain customers and related
3 businesses will take years to recover from the COVID-19 pandemic.
4 Nonetheless, I maintain that the recommended rate of return on
5 equity will allow the Company to properly maintain its facilities,
6 provide adequate service to its customers, attract capital on terms
7 that are fair and reasonable to its customers and investors, and
8 result in rates that are just and reasonable.

9 **V. REVIEW OF D'ASCENDIS TESTIMONY**

10 **Q. HAVE YOU REVIEWED COMPANY WITNESS D'ACENDIS'S**
11 **TESTIMONY?**

12 A. Yes. My review indicates that his analyses include several inputs
13 with which I take issue, and which I believe lead to his higher than
14 appropriate recommended rate of return. In particular, I disagree
15 with his exclusive use of forecasted EPS in the DCF model, his
16 estimate of the expected market return, and the market premium
17 used in his CAPM.

18 **Q. WHY DO YOU DISAGREE WITH COMPANY WITNESS**
19 **D'ASCENDIS'S EXCLUSIVE USE OF FORECASTED EPS IN HIS**
20 **DCF ANALYSIS?**

21 A. Company witness D'Ascendis has focused entirely on five-year
22 EPS forecasted growth rates in estimating the long-term expected

1 growth rate in DPS for purposes of his DCF model. He has not
2 given any weight to historical EPS growth rates nor to historical and
3 forecasted DPS and BPS growth rates. While I have given primary
4 weight to forecasted growth rates of EPS, DPS, and BPS, I have
5 also accorded some weight to actual historical performance in my
6 recommendation. Consideration of DPS and BPS, along with EPS,
7 provides a variety of indicative growth measures, as opposed to Mr.
8 D'Ascendis's reliance on only one measure. Given that at least one
9 study has found that analysts' long-term earnings growth forecasts
10 are no more accurate at forecasting future earnings than random
11 walk forecasts of future earnings,¹⁸ and that other studies have
12 found that analyst's earnings forecasts tend to have an upward bias
13 in their projections, I find the premise that investors limit their
14 investment decisions to forecasted growth rates in EPS to be quite
15 questionable. Company witness D'Ascendis's DCF analysis is
16 flawed because investors do not simply ignore the historical
17 performance of stocks. While forecasts are generally based, in part,
18 on a company's historical performance, it is quite a different
19 argument to state that investors rely solely on forecasts of EPS and
20 ignore past performance of dividends and book value.

¹⁸ See Louis K.C. Chan, Jason Karceski, and Josef Lakonishok, "The Level and Persistence of Growth Rates," *Journal of Finance*, April 2003.

1 In prior orders, this Commission has not been persuaded by rate of
2 return witnesses who relied exclusively on forecasted growth rates
3 in their use of the DCF model. In its Order in Docket No. E-22, Sub
4 532, the Commission said, "as stated in previous Commission general
5 rate case orders, [the Commission] does not approve of witness
6 Hevert's sole use of analysts' predicted earnings per share to
7 determine the DCF growth rate."¹⁹ Similarly, in its Order issued on
8 December 30, 2003, in Docket No. P-100, Sub 133d, the
9 Commission said, "The Commission is persuaded that investors
10 consider a company's historical performance along with its
11 forecasts when assessing its long-run growth potential."²⁰ In that
12 proceeding, BellSouth's witness Billingsley gave exclusive weight to
13 security analysts' EPS forecasts compiled by Zacks Investment
14 Research and the Institutional Brokers Estimate System, which is
15 comparable to witness D'Ascendis's use of earnings forecasts. This
16 reliance on only forecasted growth is incorporated into his DCF
17 model and his CAPM's use of a market risk premium that relies on
18 results from his DCF model applied to the companies in the S&P
19 500.

¹⁹ *In the Matter of Application of Virginia Electric and Power Company, d/b/a Dominion Energy North Carolina for Adjustment of Rates and Charges Applicable to Electric Service in North Carolina*, Order Accepting Public Staff Stipulation in Part, Accepting CIGFUR Stipulation Deciding Contested Issues, and Granting Partial Rate Increase, (N.C.U.C. February 24, 2020) (*appeal filed on other grounds*) at 40.

²⁰ *In the Matter of General Proceeding to Determine Permanent Pricing for Unbundled Network Elements*, Order Adopting Permanent Unbundled Network Element Rates for Bellsouth Telecommunications, Inc., Docket No. P-100, Sub 133d (N.C.U.C. Dec. 30, 2003) at 73.

1 **Q. PLEASE EXPLAIN YOUR CONCERNS WITH COMPANY**
2 **WITNESS D'ASCENDIS'S ESTIMATE OF THE EXPECTED**
3 **MARKET RISK RETURN AND MARKET PREMIUM**
4 **INCORPORATED IN HIS CAPM.**

5 A. Company witness D'Ascendis's CAPM model based on his Total
6 Market Approach assumes that investors are currently requiring an
7 expected risk premium of 15.47% that is based on an investor
8 expected return on the return of 17.78%, as shown on page 2 of
9 Schedule DWD-4. The 17.78% market estimate is derived using a
10 DCF model applied to each the 500 companies within the S&P 500
11 index. The DCF results are derived with expected dividend yields
12 earnings forecasts from Bloomberg Professional. Then Mr.
13 D'Ascendis weights each of the 500 DCF results by the Company's
14 market capitalization to arrive at 17.78% return on the market. His
15 unweighted mean DCF result for the 500 companies is 13.84% and
16 the median DCF result is 11.03%. A concern relates to the disparity
17 between his weighted average result of 17.78% and the lower
18 unweighted DCF results as well as whether investor expectations
19 are so dramatically influenced by a relative small handful of
20 companies. The DCF results of Tesla Inc., Amazon.com Inc.,
21 Microsoft Corp., Apple, Inc., and Facebook, Inc. account for over
22 41% of his weighted average DCF of 17.78%. If the witness had
23 simply taken the average of the mean and median DCF results as

1 performed in other calculations, his estimated return on the market
2 would generate a 12.43% expected return on the market for his
3 CAPM and ECAPM studies, which is far more reasonable than his
4 weighted DCF based estimate of 17.78%.

5 In my opinion, Company witness D'Ascendis's estimates of the
6 expected returns on the S&P 500 are unrealistic for investors over
7 the long run, which inflates his market premium and his CAPM and
8 ECAPM cost of equity estimates. It is highly unlikely that the growth
9 of the S&P 500 would over the long run exceed the growth of the
10 general economy.²¹ As such, I maintain that Mr. D'Ascendis's
11 expected growth rates for the S&P 500 are unsustainable and his
12 CAPM and ECAPM results that rely on a 17.78% expected return
13 on the market are overstated.

14 **Q. WHAT DO WELL KNOWN INVESTMENT ADVISORS BELIEVE**
15 **THE FUTURE RATES OF RETURNS WILL BE FOR THE S&P**
16 **500?**

17 A. As shown in Hinton Exhibit 10, Christine Benz of Morningstar has
18 collected forecasts of long-term rate of returns on stocks and bonds
19 by BlackRock Investment Institute, as well as investment
20 professionals John Bogle with Vanguard and J.P. Morgan. In
21 general, they expect a departure from history with lower future

²¹ *Id.* at 649.

1 market returns on equity of 5% to 8%. In a recent article shown as
2 Hinton Exhibit 11, Veeru Perianan, Director, Multi-Asset Research,
3 Charles Schwab Investment Advisory, Inc., predicts that the
4 annualized returns on large capitalized stocks over the next ten
5 years will be 6.6% as compared to the 10.8% historical return
6 experienced since 1970.

7 **VI. SUMMARY AND RECOMENDATIONS**

8 **Q. PLEASE SUMMARIZE YOUR RECOMMENDATIONS**
9 **CONCERNING THE COST OF CAPITAL.**

10 A. Based on the results of my analysis and study, I recommend that
11 the appropriate overall cost of capital in this case be set at 6.75%
12 as shown on Hinton Exhibit 12. This recommendation is derived
13 based on a capital structure consisting of 48.80% long-term debt,
14 0.67% short-term debt, and 50.53% common equity, with a
15 recommended cost of long-term debt of 4.08%, a recommended
16 cost of short-term debt of 0.20%, and a recommended cost of
17 common equity of 9.42%.

18 **VII: REVISIONS TO THE GAS EXTENSION FEASIBILITY MODEL**

19 **Q. PLEASE DISCUSS THE COMPANY'S MODEL USED TO**
20 **CALCULATE THE FEASIBILITY OF EXTENDING NATURAL GAS**
21 **SERVICE TO ITS RESIDENTIAL AND COMMERCIAL**
22 **CUSTOMERS.**

1 A, The Company calculates the economic feasibility of providing new
2 gas service by estimating the costs for the connection beyond the
3 allowed 100 feet of main line and 100 feet of service line, offset by
4 the cash flows generated by the expected gas margins associated
5 with the customer's expected gas usage. The feasibility study
6 follows capital budgeting practice involving the projection of the
7 after tax cash flows over the next 20 years from this customer
8 discounted to arrive at a net present value (NPV) and an internal
9 rate of return (IRR). If the project has a positive present value, then
10 the customer does not have to make a contribution in aid of
11 construction (CIAC); however, where the costs to connect are
12 greater than the NPV, there is a CIAC requirement.

13 **Q. PLEASE ADDRESS YOUR CONCERNS WITH THE COMPANY'S**
14 **MODEL.**

15 A. I have three concerns based on the lack of adherence to the
16 Commission's NPV Guidelines approved on August 4, 1999, in
17 Docket No. G-100, Sub 75. These Guidelines were applied to
18 projects to extend natural gas service to various unserved counties
19 such as McDowell County in Docket No. G-5, Sub 337, Alexander
20 County in Docket No. G-5, Sub 391, and Onslow County in Docket
21 G-21, Sub 330. Under the Guidelines, the appropriate investment
22 horizon is 40 years. Thus in this case, I recommend the use of 40
23 years or an appropriate length of time that matches the book lives

1 of the gas plant. Second, the Guidelines directed the use of the
2 approved net of tax discount rate employed for the NPV analysis.
3 Third, the Guidelines required that all future cash flows be adjusted
4 by a forecasted long-term inflation rate. The Company's current
5 feasibility model assumes that the margins remain static over the
6 20-year investment horizon. As such, I recommend that the gas
7 margins associated with the customer's gas usage be adjusted for
8 expected inflation. At this time, I recommend the use of a 2.0%
9 long-term inflation rate for all gas flows that generally include gas
10 margins and O&M expense.

11 **Q. WHAT IS THE BASIS FOR A 2% LONG-TERM INFLATION**
12 **RATE?**

13 A. While the rate is slightly below the long-term inflation rates that
14 have been employed in recent nuclear decommissioning filings and
15 recent electric utility integrated resource planning (IRP)
16 proceedings, I believe it is a reasonable rate for this application
17 where future operating and maintenance (O&M) expanses and
18 margins are inflated over the next 40 years. Furthermore, it is my
19 understanding that a [BEGIN CONFIDENTIAL] [REDACTED] [END
20 CONFIDENTIAL] inflation rate has been applied to O&M expenses
21 for the provision of gas service to Duke Energy Carolina, LLC's

1 combustion turbine in Lincoln County, North Carolina and other gas
2 expansion models reviewed by the Public Staff.²²

3 The Public Staff has discussed its proposed changes to the gas
4 extension model with the Company, and it supports these three
5 adjustments. In my opinion, these revisions will lead to a more
6 accurate assessment of the economic value of new customers.

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

8 **A. Yes.**

²² Docket Nos. G-9, Sub 750 and G-9, Sub 720.

APPENDIX A

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, Docket No. E-2, Sub 1219, and similar proceedings 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 or 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 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 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 have filed testimony on the issue of fair rate of return for electric utilities in Docket Nos. E-22, Sub 333; E-22, Sub 412; and E-22, Sub 532. I have filed testimony on credit metrics and the risk of a downgrade in Docket No. E-7, Sub 1146; the rate of return for telephone utilities in P-26, Sub 93; P-12, Sub 89; P-100, Sub 133b; and P-100, Sub 133d (1997 and 2002); the rate of return for natural gas utilities in G-21, Sub 293; P-31, Sub 125; G-5, Sub 327; G-5, Sub 386; G-9, Sub 351; and G-21, Sub 442; and the rate of return for water utilities in W-778, Sub 31; W-218, Sub 319; W-354, Sub 360, and in several smaller water utility rate cases.

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 of the CPCN from North Topsail Water and Sewer, Inc. to Utilities, Inc., in Docket No. W-

1000, Sub 5. I have filed testimony on weather normalization 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

SAFETY RANK¹

Value Line's 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).

BETA¹ (β)

The Value Line 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:

$$\text{Adjusted } \beta_i = 0.35 + 0.67\beta$$

FINANCIAL STRENGTH RATING¹

Value Line's 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.

PRICE STABILITY INDEX¹

Value Line's 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.

EARNINGS PREDICTABILITY INDEX¹

Value Line's 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 BETA² (β)

The S&P 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 RATING²

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 ratings:

- AAA An extremely strong capacity to pay interest and repay principal.
- AA+ A very strong capacity to pay interest and repay principal.
- AA There is only a small degree of difference between "AAA" and "AA"
- AA- Debt issues.
- A+ A strong capacity to pay interest and repay principal.

These A ratings indicate the obligor is more susceptible to changes in economic conditions than AAA" or "AA" debt issues.

BBB+ An adequate capacity to pay interest and repay principal.
BBB Economic conditions or changing circumstances are more likely to lead to a weakened capacity to pay interest and repay principal.
BB+ "BB" indicates less near-term vulnerability to default than other BB speculative issues.

However, these bonds face major ongoing BB uncertainties or exposure to adverse conditions that could lead to inadequate capacity to meet timely interest and principal payments.

S&P STOCK RANKING²

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 Rating³

Moody's Bond Ratings is an appraisal of the credit quality based on relevant risk factors. Shown below are the ratings:

Aaa Obligations judged to be the highest quality and are subject to the very lowest level of credit risk

Aa Obligations judged to be the high quality and are subject to low level credit risk

A Obligations judged to be the upper medium grade and are subject to low credit risk

Baa Obligations judged to be the medium grade and are subject to moderate credit risk and may possess certain speculative characteristics

Ba Obligations judged to be speculative and subject to substantial credit risk

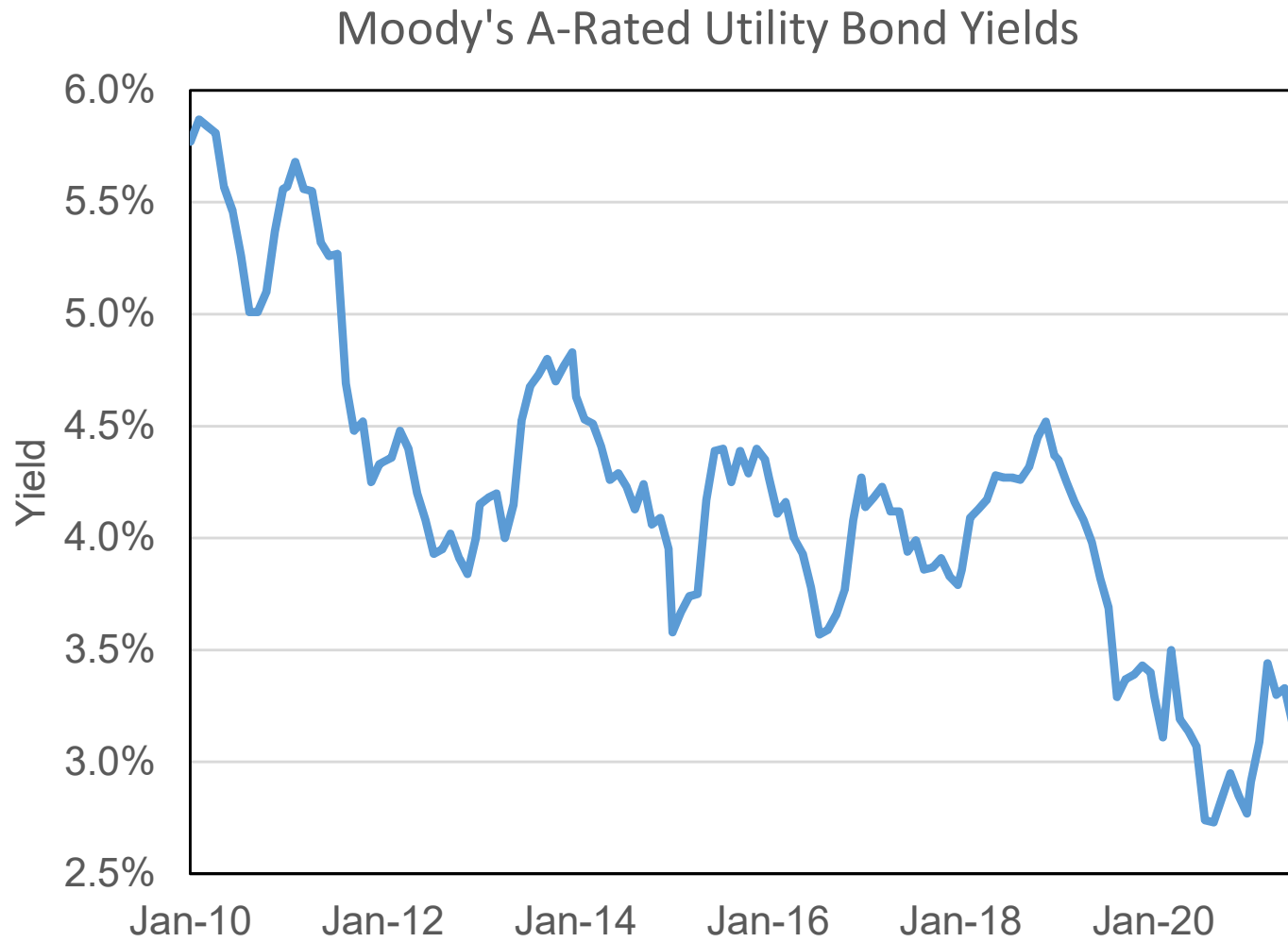
B Obligations are considered speculative and subject to high credit risk.

Sources:

¹. Value Line Investment Analyzer, Version 3.3, New York, NY.

². S&P Net Advantage and S&P Global Market Intelligence, July, 2019

³. Moody's Investor Service, Rating Symbols and Definitions, February, 2019



Public Staff
Hinton Exhibit 1

THE WALL STREET JOURNAL.

Economists Got the Decade All Wrong. They're Trying to Figure Out Why.

The U.S. has enjoyed its longest economic expansion on record without triggering inflation as interest rates remain historically low

by Greg Ip

Dec. 14, 2019 1:00 pm ET



In the fall of 2009, the global financial crisis had only just ended, and interest rates were a mere 0.1%. Peering ahead, economists assumed the recovery would resemble previous recoveries, though a tad slower, and thus rates would start rising the next year and plateau at 4.2% by 2015.

But by the fall of 2010, rates hadn't budged. Like Charlie Brown taking another run at the football, economists gamely made the same forecast that year, and the year after that and the year after that. Rates remained stuck near zero until 2015, a stretch of free money unseen since the 1940s.

When rates started to rise, they didn't come close to levels once considered normal, ending the decade between 1.5% and 1.75%. Private-sector economists now expect them to average 2.4% over the long term, according to Blue Chip Economic Indicators. Judging by the bond market, they might have guessed high again: Ten-year Treasury note yields are just 1.8%—roughly zero, adjusted for inflation.

How could economists have gotten something so basic so spectacularly wrong? What was it about this past decade that made all their predictions go awry?



Fed Chairman Jerome Powell and former chairmen Janet Yellen and Ben Bernanke. The financial crisis was followed by a stretch of free money

Economists have been casting around for the answer, a theory to explain their inability to peer accurately into the months ahead, let alone the years. Such a theory must do more than say “The Federal Reserve did it.” It must explain why growth was the most subdued of any expansion since the 1940s and inflation consistently ran below the Fed’s 2% target, the reasons the Fed kept rates so low.

And, no less difficult, it would have to explain why, in spite of that subdued growth, the U.S. has enjoyed its longest economic expansion on record, one marked by a record-breaking bull market in stocks and unemployment falling to a 50-year low.

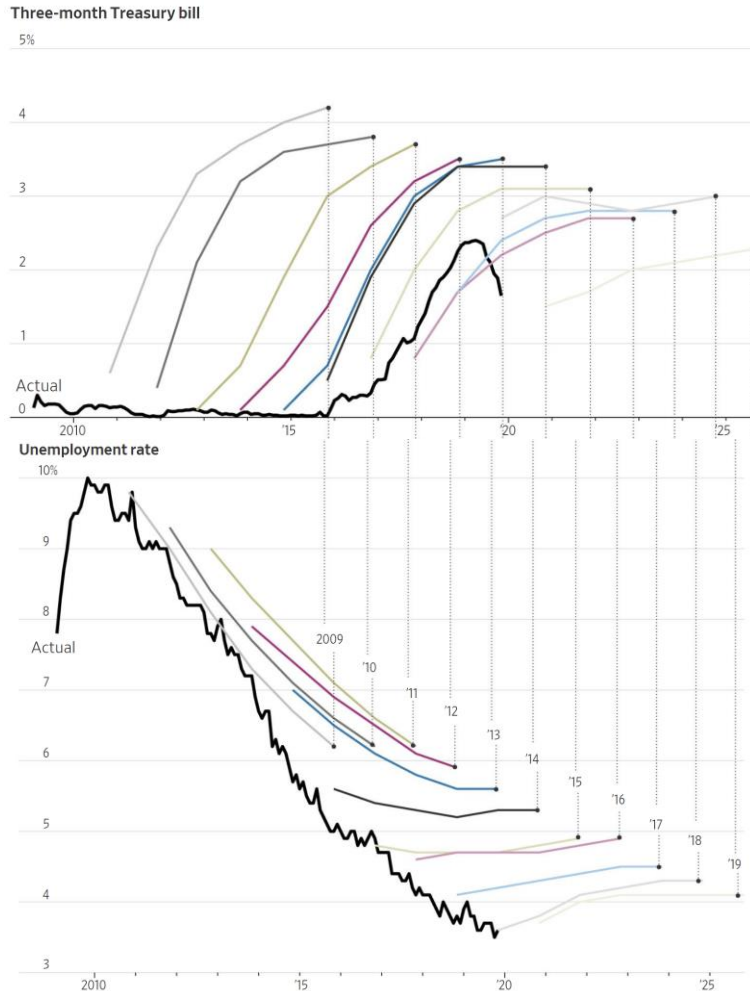
One explanation is the “debt hangover” theory popularized by Carmen Reinhart and Kenneth Rogoff, whose history of financial crises, “This Time Is Different: Eight Centuries of Financial Folly,” was a sleeper hit in 2009. They found that in the wake of financial crises, households, banks, businesses and sometimes governments are fixated on paying down debts and wary that another crisis is around the corner, so they avoid borrowing and investing. This holds down growth, inflation and interest rates.

The U.S. initially tracked this model. It had barely exited its own crisis when another erupted in the eurozone, pushing Greece into default and others to the brink of it.

But as those crises faded from view, low growth, inflation and rates persisted.

A Confounding Decade

Since 2009 economists’ projections of interest rates and unemployment (shown with year made) have consistently proved too high.



Sources: Blue Chip Economic Indicators (forecasts); Federal Reserve Bank of St. Louis (actual T-bill, unemployment rates)

So in 2013 Larry Summers, a former top adviser to Presidents Bill Clinton and Barack Obama and now an economist at Harvard University, advanced an alternative explanation: [“secular stagnation.”](#) He borrowed the phrase from an earlier Harvard economist, Alvin Hansen who used it in 1938 to describe the Great Depression’s persistently weak growth and high unemployment. Mr. Hansen tied it to weak investment due to slow population growth: Businesses had less need to invest when there were fewer new workers and customers and when aging households bought fewer big-ticket products like houses.

Slow population growth is once again weighing on growth and interest rates, Mr. Summers noted, and he added several other factors: the fastest-growing businesses, such as social-media platforms, invest little of their rich profits. Higher inequality meant more income flows to the high-saving, low-spending rich.

Though initially skeptical of Mr. Summers’s thesis, many economists have since warmed to it, at least for other parts of the world, if not the U.S. In some countries like Germany a persistent

excess of savings manifests itself as a trade surplus which flows into other countries' bonds, holding down interest rates around the world.

Secular stagnation has several profound implications. First, with interest rates closer to zero, central banks are less able to combat future recessions. Second, a structural shortage of private borrowing means governments can run big deficits without pushing up interest rates. Indeed, given central banks' lack of ammunition, governments should run deficits, or the economy will stagnate. Reducing entitlements such as future Social Security benefits in the name of fiscal prudence may worsen the problem by encouraging households to save more.

Secular stagnation also increases the risk of protectionism. Any country with too little domestic demand to achieve full employment and 2% inflation will be tempted to foist the problem on its neighbors by cheapening its currency or erecting tariffs so as to export more and import less.

Yet in key respects the past decade doesn't conform to the gloomy prognosis of secular stagnation: The stock market has romped to one record after another, and job growth has remained consistently strong.

As with interest rates, economists have been surprised by unemployment, which peaked at almost 10% in 2010. Year after year, they expected it to bottom out around 5%. It's now down to 3.5%, a 50-year low, and likely headed lower.

The expansion is now the longest since records begin in the mid-1800s. It bears little resemblance to the 1930s, which Mr. Hansen described as "sick recoveries which die in their infancy and...leave a hard and seemingly immovable core of unemployment."



Job seekers and recruiters at a fair in Los Angeles. Economists have been surprised by the continued decline of unemployment.

This points to a third possible theory. The so-called natural rate of unemployment, the lowest the U.S. can sustain without running out of workers or pushing up inflation (called u^* or "u-star" in economists' equations) is much lower than previously thought. So the recovery has had more ground to cover than many realized, and as a result the economy has spent much of the past decade operating well below capacity.

Jan Hatzius, chief economist at Goldman Sachs, says there isn't a lot of mystery about the behavior of inflation and interest rates: "We fell into a deep hole so we had a lot of spare capacity, and it took a long time to climb out."

The U.S. may have finally climbed out, but until Europe has as well, interest rates may remain low, he says. "How secular is it? How cyclical? Until you've seen economies really normalize from a cyclical perspective it's going to be hard to fully distinguish between those two things."

In other words, it might take the next decade to answer what really happened in the last.

Mr. Ip is The Wall Street Journal's chief economics commentator, in Washington. He can be reached at greg.ip@wsj.com.

CREDIT OPINION

16 July 2021

Update

✓ Rate this Research

RATINGS

Piedmont Natural Gas Company, Inc.

Domicile	North Carolina, United States
Long Term Rating	A3
Type	Senior Unsecured - Dom Curr
Outlook	Stable

Please see the [ratings section](#) at the end of this report for more information. The ratings and outlook shown reflect information as of the publication date.

Contacts

Nana Hamilton +1.212.553.9440
VP-Senior Analyst
nana.hamilton@moodys.com

Yulia Rakityanskaya +1.416.214.3627
Associate Analyst
yulia.rakityanskaya@moodys.com

Michael G. Haggarty +1.212.553.7172
Associate Managing Director
michael.haggarty@moodys.com

Piedmont Natural Gas Company, Inc.

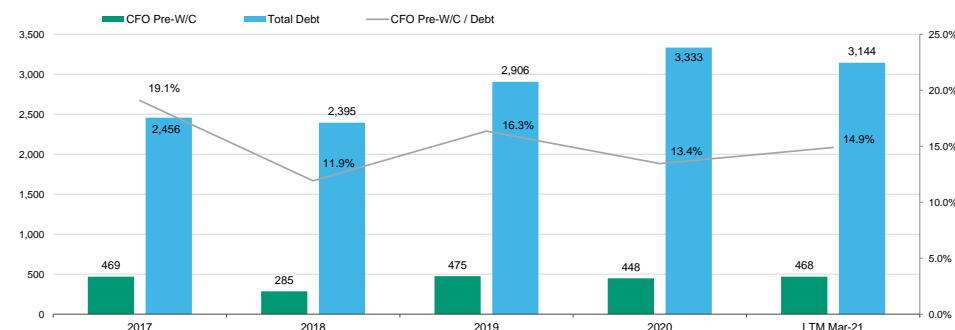
Update to credit analysis

Summary

Piedmont Natural Gas Company, Inc.'s (Piedmont) credit profile reflects its low business risk as a regulated natural gas local distribution company (LDC) operating in supportive regulatory jurisdictions in North Carolina, South Carolina and Tennessee. Our opinion recognizes that credit metrics have been impacted by the negative cash flow impact of federal tax reform and a large capital program and therefore will not return to pre-tax reform highs. We expect the company's average ratio of cash flow from operations excluding changes in working capital (CFO pre-WC) to debt will be maintained at around 15%-16% over the next two years.

Exhibit 1

Historical CFO Pre-WC, Total Debt and CFO Pre-WC to Debt (\$ MM) [1]



[1] CFO pre-WC is defined as cash flow from operations excluding changes in working capital

Source: Moody's Financial Metrics

Credit strengths

- » Credit supportive regulatory environments in North Carolina, South Carolina and Tennessee
- » Utility growth driven by customer additions and system integrity investment
- » Position as part of the Duke corporate family

Credit challenges

- » Elevated capital expenditure program
- » Increased leverage
- » Weak credit metrics for an A3 rated LDC

Rating outlook

Piedmont's stable outlook reflects our expectation that the company will continue to receive credit supportive regulatory treatment across each of its jurisdictions. The outlook also incorporates our expectation that credit metrics, which are weak and have been adversely affected by the negative cash flow impact of federal tax reform and increased leverage due to a large capital program, will remain below pre-tax reform highs. Going forward, on average, we expect Piedmont's ratio of CFO pre-WC to debt to be between 15% and 16%.

Factors that could lead to an upgrade

- » An increase in cash flow or reduction in leverage leading to a ratio of CFO pre-WC to debt that remains above 18% could put upward pressure on credit quality

Factors that could lead to a downgrade

- » Piedmont's credit profile could weaken if there is a significant deterioration in the company's regulatory environments
- » Or, if we expect the CFO pre-WC to debt ratio to be below 14% for an extended period, there could also be downward pressure

Key indicators

Piedmont Natural Gas Company, Inc. [1]

	Dec-17	Dec-18	Dec-19	Dec-20	LTM Mar-21
CFO Pre-W/C + Interest / Interest	6.1x	3.9x	5.2x	4.5x	4.6x
CFO Pre-W/C / Debt	19.1%	11.9%	16.3%	13.4%	14.9%
CFO Pre-W/C – Dividends / Debt	19.1%	11.9%	16.3%	13.4%	14.9%
Debt / Capitalization	52.7%	47.8%	48.3%	48.6%	43.6%

[1] All ratios are based on 'Adjusted' financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations.

Source: Moody's Financial Metrics

Profile

Headquartered in Charlotte, North Carolina, Piedmont is a local natural gas distribution company subsidiary of Duke Energy Corporation (Duke Energy, Baa2 stable) with 1.1 million customers in the southeastern U.S. Piedmont has operations in three states, North Carolina (73% of rate base), Tennessee (19%), and South Carolina (8% of rate base).

Piedmont holds indirect equity stakes in several energy related joint ventures including: Hardy Storage Company (50% ownership) in West Virginia, the Pine Needle LNG Company LLC (45% ownership) and the intrastate Cardinal Pipeline (21.5% ownership) servicing North Carolina. Piedmont also subscribes to the services of these entities.

Detailed credit considerations

Credit supportive regulatory environments

Piedmont's operations are subject to the regulatory overview of the North Carolina Utilities Commission (NCUC), the Public Service Commission of South Carolina (PSCSC), and the Tennessee Public Utility Commission (TPUC). We consider the regulatory environments to be credit supportive. The three states all provide cost recovery mechanisms and frameworks that lead to shorter regulatory lag and reasonable returns on utility investments.

Piedmont recovers its natural gas costs through a purchased gas adjustment mechanism in all three of its operating jurisdictions. In North Carolina (73% of rate base at the end of 2020), Piedmont has a full margin decoupling mechanism for residential and commercial customers, allowing the LDC to true up any over/under collection of margin regardless of customer demand through semi-

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annual rate adjustments. This enhances cash flow predictability, a credit positive. The company also has a specific rider to recover bad debt expense.

In March 2021, Piedmont filed a general rate case in North Carolina requesting a 10.4%, or approximately \$109 million, increase in retail revenues. The rate case filing request is premised on an ROE of 10.25% and a 52% equity component of the capital structure. The filing is based on a North Carolina rate base of \$4.8 billion as of December 31, 2020, as adjusted for known and measurable changes through June 30, 2021. The request includes approximately \$1.7 billion of plant additions related to system growth, pipeline integrity management, infrastructure investments, and safety and security upgrades. Approximately 70% of the plant additions are categories of plant investment not covered under the Integrity Management Rider (IMR) mechanism, such as Piedmont's new liquefied natural gas storage facility located in Robeson County, NC and enhancements to an existing storage facility in Huntersville, NC.

Piedmont's last North Carolina rate case was decided in November 2019 when the company was authorized a \$109 million increase (before consideration of decrease riders associated with federal and state tax reform) based on a 9.7% ROE and a 52% equity layer.

In Tennessee (19% of rate base at the end of 2020), the TPUC allows Piedmont to benefit from a Weather Normalization Adjustments (WNA) clause but not from a decoupling mechanism. However, Piedmont is allowed to use a forward test year with its rate filings. Piedmont also benefits from an Integrity Management Rider (IMR) that allows the LDC to recover investments related to federal and state mandated safety and integrity programs. Piedmont has successfully implemented rate adjustments under the IMR each year since the program began. The company also has a specific rider to recover bad debt expense.

In July 2020, Piedmont filed its first general rate case in Tennessee in nine years, requesting an approximate 15%, \$30 million (subsequently reduced to \$26 million), increase in annual revenue. The request was driven by significant infrastructure upgrades, approximately half of which are not covered by the company's 2013 approved pipeline integrity management rider mechanism. As authorized by Tennessee, interim rates were implemented on January 2, 2021. In February 2021, the TPUC accepted a settlement granting the company a \$16 million increase based on a 9.8% ROE. Rates were made effective January 2, 2021, with Piedmont to refund the difference between the interim and settled rates.

In South Carolina (8% of rate base at the end of 2020), Piedmont benefits from rate stabilization tariffs. Under the South Carolina Rate Stabilization Act, tariffs are subject to annual true-ups to support the company's allowed ROE (10.2%). In addition, a WNA mechanism offsets volume fluctuations in the winter season. The company also has a specific rider to recover bad debt expense.

In North Carolina and South Carolina, rates are set based on historical test years, which exposes the LDC to a lag in its investment cost recovery. However, similar to Tennessee, in North Carolina the NCUC has authorized the use of an IMR which allows the company to recover integrity related capital expenditures outside of general rate cases, a credit positive. Rate adjustments are now made semiannually each December and June.

Utility growth driven by customer additions and system integrity investments

Between 2015 and 2019, Piedmont's total capital expenditures increased steadily as the company invested in system integrity and to support customer growth. Annual expenditures grew from \$455 million in 2015 to over \$1 billion in 2019, slightly declining to \$901 million in 2020. Spending is expected to decline somewhat to an average of about \$800 million per year for the 2021-2025 period.

For the 2021-2025 period, Piedmont expects to deploy a total of about \$4 billion of capital of which approximately 80% has been identified as growth capital. Of this, close to 60% is expected to be recovered via integrity management riders, which assures recovery will begin with minimal lag, a credit positive. Although recovery is expected to begin quickly, given the long-lived nature of these assets (which lowers the amount of depreciation included in the revenue requirement) and the loss of bonus depreciation that occurred following the enactment of federal tax reform in December of 2017, we expect credit metrics will remain below the highs demonstrated prior to 2018.

Weak credit metrics for an A3 rated LDC

Prior to 2018, Piedmont's cash flow and credit metrics were relatively strong, with the ratio of CFO pre-W/C to debt in the range of 20%. More recently, given the impact of federal tax reform, the utility's robust capital expenditure program and the associated leverage to fund these investments, credit metrics have declined significantly and are now weak for an A3 rated LDC. Going forward, in light of the company's relatively constructive regulatory environments, numerous rate adjustment mechanisms and planned rate case activity,

we believe the company will demonstrate an average ratio of CFO pre-WC to debt around 15% to 16%. We note that Piedmont has not paid a dividend to parent Duke Energy since 2016 and has received capital contributions from Duke totaling \$775 million since 2018, helping to limit the extent of the deterioration in credit metrics and support the utility through a period of elevated capital expenditures.

ESG considerations

Environmental considerations incorporated into our credit analysis for Piedmont are primarily related to air pollution and regulations around carbon, methane and other greenhouse gas emissions. These gases are emitted during the natural gas life cycle, including through the production of the energy that the company delivers through its own gas infrastructure.

Social risks are primarily related to health and safety, demographic and societal trends, as well as customer relations as the company works to provide reliable and affordable service to customers and safe working conditions to employees.

From a governance perspective, financial and risk management policies including a strong financial profile are important characteristics for managing environmental and social risks.

Liquidity analysis

Given its large capital expenditure program, Piedmont will continue to rely on external financing sources to maintain an adequate liquidity profile. For the last twelve months ended March 31, 2021, Piedmont generated \$516 million of cash from operations (CFO), invested \$870 million in capital expenditures and made no distributions to the parent which resulted in negative free cash flow (FCF) of \$354 million. In 2020, Piedmont generated \$481 million of CFO, invested approximately \$901 million in capital expenditures and made no distributions to parent Duke Energy which resulted in negative FCF of \$420 million. The shortfalls were partially funded with equity infusions from Duke Energy. We expect Piedmont to be cash flow negative for the next few years as capital expenditures remain elevated as the company spends for customer growth and system integrity. We expect shortfalls will primarily be funded with a combination of long-term and short-term debt financing.

Piedmont's additional liquidity sources include access to funding from the parent company's commercial paper program through the Duke Energy system money pool, and direct borrowings from the money pool. As of March 31, 2021, the utility had \$700 million of borrowing capacity under Duke Energy's \$8 billion multi-year (March 2026 termination) master credit facility. Duke Energy has unilateral ability to increase Piedmont's borrowing capacity, up to \$850 million, which could provide significant additional liquidity as needed. As of March 31, 2021, the utility had no commercial paper outstanding, leaving \$700 million available under the parent credit facility. The facility does not contain a material adverse change clause for new borrowings and has a single financial covenant requiring that Duke Energy and its utility subsidiaries each maintain a consolidated debt to capitalization ratio of no more than 65%, except for Piedmont. The debt to capital covenant for Piedmont is a maximum of 70%. As of March 31, 2021, we estimate Piedmont's ratio to be about 49%.

Piedmont's nearest long-term debt maturity is \$45 million of unsecured notes due October 2023.

Public Staff
Hinton Exhibit 3
Page 5 of 21

Rating methodology and scorecard factors

Methodology Scorecard Factors Piedmont Natural Gas Company, Inc.

Regulated Electric and Gas Utilities Industry Scorecard [1][2]	Current LTM 3/31/2021	Moody's 12-18 Month Forward View As of Date Published [3]
Factor 1 : Regulatory Framework (25%)	Measure	Score
a) Legislative and Judicial Underpinnings of the Regulatory Framework	A	A
b) Consistency and Predictability of Regulation	Aa	Aa
Factor 2 : Ability to Recover Costs and Earn Returns (25%)	Measure	Score
a) Timeliness of Recovery of Operating and Capital Costs	A	A
b) Sufficiency of Rates and Returns	A	A
Factor 3 : Diversification (10%)	Measure	Score
a) Market Position	A	A
b) Generation and Fuel Diversity	N/A	N/A
Factor 4 : Financial Strength (40%)	Measure	Score
a) CFO pre-WC + Interest / Interest (3 Year Avg)	4.7x	A
b) CFO pre-WC / Debt (3 Year Avg)	15.1%	Baa
c) CFO pre-WC – Dividends / Debt (3 Year Avg)	15.1%	A
d) Debt / Capitalization (3 Year Avg)	45.4%	A
Rating:	Measure	Score
Scorecard-Indicated Outcome Before Notching Adjustment		A2
HoldCo Structural Subordination Notching		0
a) Scorecard-Indicated Outcome		A2
b) Actual Rating Assigned		A3

[1] All ratios are based on 'Adjusted' financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations.

[2] As of 3/31/2021 (LTM)

[3] This represents Moody's forward view; not the view of the issuer; and unless noted in the text, does not incorporate significant acquisitions and divestitures.

Source: Moody's Financial Metrics

Appendix

Exhibit 4

Peer Comparison Table [1]

	Piedmont Natural Gas Company, Inc. A3 (Stable)			Public Service Co. of North Carolina, Inc. Baa1 (Stable)			DTE Gas Company A3 (Stable)			Spire Alabama Inc. A2 (Stable)		
(In US millions)	FYE Dec-19	FYE Dec-20	LTM Mar-21	FYE Dec-19	FYE Dec-20	LTM Mar-21	FYE Dec-19	FYE Dec-20	LTM Mar-21	FYE Dec-19	FYE Sep-20	LTM Mar-21
Revenue	1,381	1,297	1,391	545	525	552	1,462	1,396	1,468	466	455	480
EBITDA	498	587	623	203	227	231	469	483	530	169	177	186
Total Debt	2,906	3,333	3,144	911	973	903	1,997	2,168	2,030	624	678	703
CFO Pre-W/C / Debt	16.3%	13.4%	14.9%	12.6%	14.3%	19.7%	18.4%	18.9%	22.9%	28.3%	25.7%	26.5%
CFO Pre-W/C – Dividends / Debt	16.3%	13.4%	14.9%	11.2%	14.3%	17.5%	12.3%	12.6%	16.0%	25.2%	22.1%	23.2%
Debt / Capitalization	48.3%	48.6%	43.6%	43.1%	41.0%	38.5%	44.2%	43.9%	40.8%	43.0%	44.4%	44.0%
Debt / EBITDA	5.8x	5.7x	5.0x	4.5x	4.3x	3.9x	4.3x	4.5x	3.8x	3.7x	3.8x	3.8x
EBITDA / Interest Expense	4.4x	4.6x	4.8x	4.6x	5.4x	5.7x	5.8x	5.9x	6.4x	7.1x	7.3x	7.9x

[1] All figures & ratios calculated using Moody's estimates & standard adjustments. FYE = Financial Year-End. LTM = Last Twelve Months. RUR* = Ratings under Review, where UPG = for upgrade and DNG = for downgrade

Source: Moody's Financial Metrics

Public Staff
Hinton Exhibit 3
Page 6 of 21

Exhibit 5

Cash Flow and Credit Metrics [1]

CF Metrics	Dec-17	Dec-18	Dec-19	Dec-20	LTM Mar-21
As Adjusted					
FFO	464	283	484	452	454
+/- Other	5	2	-9	-4	14
CFO Pre-WC	469	285	475	448	468
+/- ΔWC	-125	185	-88	31	46
CFO	344	470	387	479	514
- Div	0	0	0	0	0
- Capex	579	713	1,031	899	868
FCF	-235	-243	-644	-420	-354
(CFO Pre-W/C) / Debt	19.1%	11.9%	16.3%	13.4%	14.9%
(CFO Pre-W/C - Dividends) / Debt	19.1%	11.9%	16.3%	13.4%	14.9%
FFO / Debt	18.9%	11.8%	16.7%	13.6%	14.4%
RCF / Debt	18.9%	11.8%	16.7%	13.6%	14.4%
Revenue	1,328	1,375	1,381	1,297	1,391
Interest Expense	92	100	114	127	129
Net Income	144	89	170	258	284
Total Assets	6,244	6,837	7,730	8,607	8,910
Total Liabilities	4,603	4,771	5,323	5,898	5,673
Total Equity	1,641	2,066	2,407	2,709	3,237

[1] All figures and ratios are calculated using Moody's estimates and standard adjustments. Periods are Financial Year-End unless indicated. LTM = Last Twelve Months

Source: Moody's Financial Metrics

Exhibit 6

Moody's - Adjusted Debt Breakdown

Piedmont Natural Gas Company, Inc.

(USD Millions)	FYE Dec-17	FYE Dec-18	FYE Dec-19	FYE Dec-20	LTM Mar-21
As Reported Debt	2,401.0	2,336.0	2,860.0	3,310.0	3,127.0
Pensions	4.0	3.0	4.0	0.0	0.0
Unusual	0.0	0.0	0.0	0.0	0.0
Non-Standard Adjustments	13.0	12.0	15.0	0.0	0.0
Moody's Adjusted Debt	2,456.1	2,395.0	2,906.0	3,333.0	3,144.0

All figures are calculated using Moody's estimates and standard adjustments

Source: Moody's Financial Metrics™

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Aug 05 2022

Public Staff
Hinton Exhibit 3
Page 7 of 21

Ratings

Exhibit 7

Category	Moody's Rating
PIEDMONT NATURAL GAS COMPANY, INC.	
Outlook	Stable
Senior Unsecured	A3
PARENT: DUKE ENERGY CORPORATION	
Outlook	Stable
Issuer Rating	Baa2
Sr Unsec Bank Credit Facility	Baa2
Senior Unsecured	Baa2
Jr Subordinate	Baa3
Pref. Stock	Ba1
Commercial Paper	P-2

Source: Moody's Investors Service

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Dec 05 2022

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REPORT NUMBER

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S&P Global
Ratings

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Piedmont Natural Gas Co. Inc.

Primary Credit Analyst:

Obioma Ugboaja, New York + 1 (212) 438 7406; obioma.ugboaja@spglobal.com

Secondary Contact:

Daniel Bairbekov, New York + 212-438-1903; daniel.bairbekov@spglobal.com

Table Of Contents

Credit Highlights

Outlook

Our Base-Case Scenario

Company Description

Peer comparison

Business Risk

Financial Risk

Liquidity

Covenant Analysis

Environmental, Social, And Governance

Group Influence

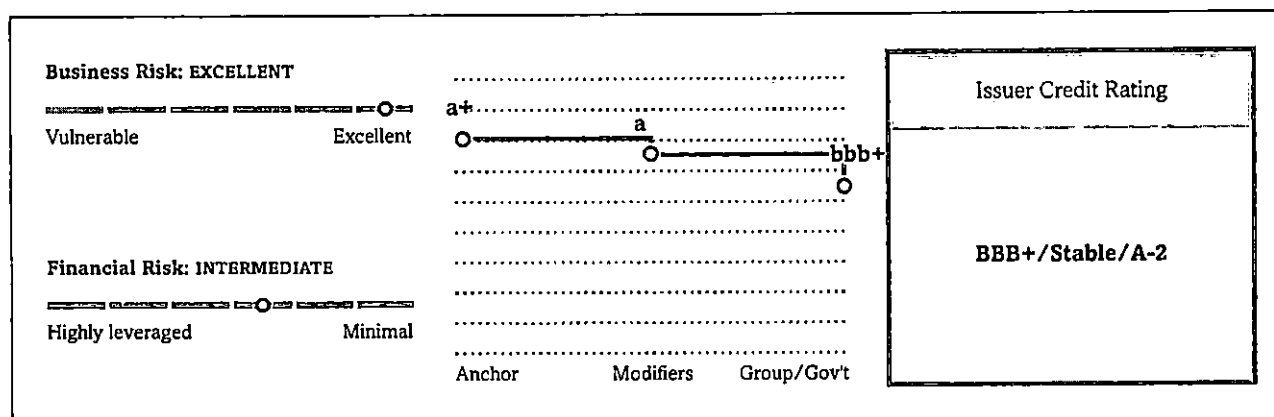
Issue Ratings - Subordination Risk Analysis

Ratings Score Snapshot

Table Of Contents (cont.)

Related Criteria

Piedmont Natural Gas Co. Inc.



Credit Highlights

Overview	
Key strengths	Key risks
Lower-risk regulated gas utility that effectively manages its regulatory risk.	Most of service territory is exposed to extreme weather events, including hurricanes.
Customer base of more than 1 million provides stability to the company's cash flows.	Forecast negative discretionary cash flow indicates external funding needs.
Diverse source of cash flows from operations spread across North Carolina, South Carolina, and Tennessee.	
Operating assets are generally of higher quality compared to gas utility peers.	

Our ratings on Piedmont Natural Gas Co. Inc. are underpinned by our ratings on its immediate parent, Duke Energy Corp. We consider Piedmont to be a strategically important subsidiary of Duke. Although Piedmont is a successful utility operator, has Duke's long-term commitment, and is important to Duke's long-term strategy, we no longer view Piedmont as a core subsidiary of Duke. This view reflects the recently announced sale of an almost 20% equity stake in another Duke subsidiary, Duke Energy Indiana to GIC that we believe because of Duke's high capital spending program, could potentially be replicated at any of Duke's relatively smaller subsidiaries. Piedmont accounts for approximately 5% of Duke's regulated EBITDA. This assessment has no effect on Piedmont's stand-alone credit profile, issuer credit rating, nor issue ratings.

We expect Piedmont to manage risks related to COVID-19. As of Oct. 1, 2020, normal billing procedures resumed in all of Piedmont's service territories, and service disconnections for nonpayment resumed on Nov. 4, 2020. Overall, we expect the company to use a combination of factors to mitigate any potential cash flow shortfalls stemming from the pandemic. This includes effective expense management and working constructively with its regulators.

Piedmont's rate case with the Tennessee Public Utility Commission (TPUC) is pending. Piedmont filed for a general rate case increase with the TPUC on July 2, 2020. Piedmont requested a rate increase of about \$30 million for retail customers based on 10.3% return on equity (ROE) and 50.5% equity component of capital structure. As of February 2021, the company has reached a settlement on this rate case with several parties. Although the terms of the settlement indicate a lower overall rate increase of about \$16 million premised on a 9.8% ROE, other factors, such as the 50.5% authorized equity layer are favorable for Piedmont's stand-alone credit quality. It is likely a decision on this rate case could be reached by mid-2021.

Our stand-alone credit profile for Piedmont includes a negative comparable ratings analysis modifier. This incorporates our forecast for Piedmont's financial measures, which we expect will consistently reflect the lower end of its financial risk profile category, compared to peers. Specifically, we expect Piedmont's funds from operations (FFO) to debt ratio to average about 14% over our forecast period.

Outlook

The stable outlook on Piedmont reflects our stable outlook on parent Duke Energy and our expectations that Piedmont's stand-alone financial measures will be consistent with the lower end of the range for its financial risk profile category, reflecting FFO to debt of about 14% (assessed under our low-volatility financial benchmark table).

Downside scenario

We could lower our ratings on Piedmont over the next 12-24 months if we downgrade parent Duke. We could also lower Piedmont's ratings if its stand-alone business risks increase or if its stand-alone financial measures weaken such that FFO to debt consistently weakens to below 9%.

Upside scenario

We could raise our ratings on Piedmont over the next 12-24 months if parent Duke Energy is upgraded and Piedmont's stand-alone financial measures are maintained such that FFO to debt is consistently above 9%, without incurring higher business risks.

Our Base-Case Scenario

Assumptions

- Continued use of existing regulatory cost recovery mechanisms, and periodic rate case filings.
- Capital spending of about \$875 million in 2020, \$725 million in 2021, and averaging slightly above \$815 million annually beginning in 2022.
- No cash dividends to parent until 2023.
- Negative discretionary cash flow throughout our forecast period.

Key Metrics

	2019a	2020e	2021e
FFO to debt (%)	14.4	14-15	14-15
Debt to EBITDA (x)	5.8	5.3	5.0
Cash FFO to interest	4.7	4.6	4.8

a--Actual. e--Estimate. FFO--Funds from operations.

Company Description

Piedmont Natural Gas Co. Inc. is a regulated gas utility company. It provides gas service to about 1 million residential,

commercial, and industrial customers, including power generation and municipal customers, in North Carolina, South Carolina, and Tennessee. Piedmont is a subsidiary of Duke Energy, and it contributes about 5% of Duke Energy's regulated EBITDA.

Peer comparison

Table 1

Piedmont Natural Gas Co. Inc.--Peer Comparison

Industry Sector: Gas

	Piedmont Natural Gas Co. Inc.	Atmos Energy Corp.	Southwest Gas Corp.	ONE Gas Inc.	Southern Co. Gas
Ratings as of Jan. 13, 2021	BBB+/Stable/A-2	A/Stable/A-1	A-/Stable/--	A/Stable/A-1	A-/Negative/A-2
	--Fiscal year ended Dec. 31, 2019--	--Fiscal year ended Sept. 30, 2020--	--Fiscal year ended Dec. 31, 2019--	--Fiscal year ended Dec. 31, 2019--	--Fiscal year ended Dec. 31, 2019--
(Mil. \$)					
Revenue	1,381.0	2,821.1	1,368.9	1,652.7	3,792.0
EBITDA	489.0	1,304.4	506.0	493.5	1,561.0
Funds from operations (FFO)	409.0	1,089.4	412.0	396.3	1,341.6
Interest expense	115.0	99.8	99.6	68.5	241.4
Cash interest paid	111.0	218.0	93.3	67.0	260.4
Cash flow from operations	387.0	1,055.8	364.7	313.0	1,075.6
Capital expenditure	1,027.0	1,927.2	774.2	412.7	1,402.0
Free operating cash flow (FOCF)	(640.0)	(871.4)	(409.5)	(99.7)	(326.4)
Discretionary cash flow (DCF)	(640.0)	(1,153.8)	(505.4)	(212.7)	(797.4)
Cash and short-term investments	0.0	20.8	40.5	17.9	46.0
Debt	2,833.4	5,053.9	2,607.2	1,807.1	5,752.1
Equity	2,443.0	6,791.2	2,005.2	2,129.4	9,506.0
Adjusted ratios					
EBITDA margin (%)	35.4	46.2	37.0	29.9	41.2
Return on capital (%)	6.6	7.7	7.1	7.9	7.2
EBITDA interest coverage (x)	4.3	13.1	5.1	7.2	6.5
FFO cash interest coverage (x)	4.7	6.0	5.4	6.9	6.2
Debt/EBITDA (x)	5.8	3.9	5.2	3.7	3.7
FFO/debt (%)	14.4	21.6	15.8	21.9	23.3
Cash flow from operations/debt (%)	13.7	20.9	14.0	17.3	18.7
FOCF/debt (%)	(22.6)	(17.2)	(15.7)	(5.5)	(5.7)
DCF/debt (%)	(22.6)	(22.8)	(19.4)	(11.8)	(13.9)

Business Risk

Our assessment of Piedmont's business risk profile largely reflects its lower-risk gas distribution utility operations, size, and effective management of regulatory risk. Piedmont's regulated utility operations provide the company with scale and some diversity in regulated cash flow sources despite concentration in North Carolina. About 70% of Piedmont's rate base is in North Carolina. The company effectively manages regulatory risk and benefits from various riders that mitigate regulatory lag and under-earning. These include the integrity management riders in North Carolina and Tennessee, which allow Piedmont to recover and earn on certain capital investments outside of the rate case process. They also include rate stabilization adjustment filings in South Carolina, which allow Piedmont to annually adjust its rates if its earnings materially deviate from its authorized returns. In addition, we view Piedmont's operating assets as generally of higher quality compared to peers, reflecting no cast iron pipes within the company's gas distribution system, and a record of delivering reliable gas service to its customers. Collectively, these factors support our overall assessment of Piedmont's business risk at the higher half of its business risk profile category, relative to peers.

Financial Risk

Financial summary

We assess Piedmont's financial measures using our low-volatility table, reflecting the company's lower-risk gas distribution operations and effective management of regulatory risk. Our base-case scenario includes capital spending of about \$875 million in 2020, about \$725 million in 2021, and averaging slightly above \$815 million annually thereafter. In addition, our forecast incorporates equity contributions from the parent as needed to support Piedmont's capital structure, and no dividends to the parent through 2021. We expect Piedmont's financial measures will remain consistent with the lower end of the range for the intermediate financial risk profile category. Specifically, we expect FFO to debt to average about 14%-15%.

Table 2

Piedmont Natural Gas Co. Inc. Financial Summary

Industry Sector: Gas

	--Fiscal year ended Dec. 31--				
	2019	2018	2017	2016	2015
(Mil. \$)					
Revenue	1,381.0	1,375.0	1,328.0	1,210.8	1,371.7
EBITDA	489.0	396.5	465.4	418.1	450.7
Funds from operations (FFO)	409.0	314.3	385.1	345.8	362.6
Interest expense	115.0	101.2	94.2	85.4	83.0
Cash interest paid	111.0	98.2	92.2	96.8	84.9
Cash flow from operations	387.0	464.3	340.1	274.6	363.0
Capital expenditure	1,027.0	704.0	573.0	548.0	443.7
Free operating cash flow (FOCF)	(640.0)	(239.7)	(232.9)	(273.4)	(80.6)
Discretionary cash flow (DCF)	(640.0)	(239.7)	(232.9)	(387.4)	(184.0)
Cash and short-term investments	0.0	0.0	19.0	25.2	13.7

Table 2

Piedmont Natural Gas Co. Inc.--Financial Summary (cont.)

Industry Sector: Gas

	--Fiscal year ended Dec. 31--				
	2019	2018	2017	2016	2015
Gross available cash	0.0	0.0	19.0	25.2	13.7
Debt	2,833.4	2,312.0	2,364.0	2,119.6	1,866.8
Equity	2,443.0	2,091.0	1,662.0	1,672.1	1,426.3
Adjusted ratios					
EBITDA margin (%)	35.4	28.8	35.0	34.5	32.9
Return on capital (%)	6.6	5.7	7.7	7.1	9.6
EBITDA interest coverage (x)	4.3	3.9	4.9	4.9	5.4
FFO cash interest coverage (x)	4.7	4.2	5.2	4.6	5.3
Debt/EBITDA (x)	5.8	5.8	5.1	5.1	4.1
FFO/debt (%)	14.4	13.6	16.3	16.3	19.4
Cash flow from operations/debt (%)	13.7	20.1	14.4	13.0	19.4
FOCF/debt (%)	(22.6)	(10.4)	(9.9)	(12.9)	(4.3)
DCF/debt (%)	(22.6)	(10.4)	(9.9)	(18.3)	(9.9)

Reconciliation

Table 3

Piedmont Natural Gas Co. Inc.--Reconciliation Of Reported Amounts With S&P Global Ratings' Adjusted Amounts

--Fiscal year ended Dec. 31, 2019--

Piedmont Natural Gas Co. Inc. reported amounts (mil. \$)

	Debt	EBITDA	Operating income	Interest expense	S&P Global Ratings' adjusted EBITDA	Cash flow from operations	Capital expenditure
	2,860.0	478.0	304.0	87.0	489.0	409.0	1,053.0
S&P Global Ratings' adjustments							
Cash taxes paid	--	--	--	--	31.0	--	--
Cash interest paid	--	--	--	--	(84.0)	--	--
Reported lease liabilities	27.0	--	--	--	--	--	--
Operating leases	--	5.0	1.0	1.0	(1.0)	4.0	--
Capitalized interest	--	--	--	26.0	(26.0)	(26.0)	(26.0)
Share-based compensation expense	--	3.0	--	--	--	--	--
Asset-retirement obligations	13.4	1.0	1.0	1.0	--	--	--
Nonoperating income (expense)	--	--	13.0	--	--	--	--
Debt: Other	(67.0)	--	--	--	--	--	--
EBITDA: Other income/(expense)	--	2.0	2.0	--	--	--	--
Depreciation and amortization: Other	--	--	(2.0)	--	--	--	--

Table 3

Piedmont Natural Gas Co. Inc.--Reconciliation Of Reported Amounts With S&P Global Ratings' Adjusted Amounts (cont.)							
Total adjustments	(26.6)	11.0	15.0	28.0	(80.0)	(22.0)	(26.0)
S&P Global Ratings' adjusted amounts							
	Debt	EBITDA	EBIT	Interest expense	Funds from operations	Cash flow from operations	Capital expenditure
	2,833.4	489.0	319.0	115.0	409.0	387.0	1,027.0

Liquidity

As of Sept. 30, 2020, we assess Piedmont's liquidity as adequate. Piedmont can more than cover its needs for the next 12 months, even if EBITDA declines by 10%. We expect the company's liquidity sources over the next 12 months will exceed uses by more than 1.1x. Our assessment of Piedmont's liquidity also reflects the company's ability to absorb high-impact, low-probability events with limited need for refinancing, well-established relationships with banks, a solid standing in the credit markets, and manageable debt maturities over the next few years. The short-term rating on Piedmont reflects our issuer credit rating on the company.

Principal liquidity sources

- Credit facility of \$600 million; and
- Cash FFO of \$484 million.

Principal liquidity uses

- Maintenance capital spending of about \$400 million over the next 12 months; and
- Long-term debt maturities of \$160 million.

Debt maturities

- 2023: \$45 million
- 2024: \$40 million
- 2025: \$205 million

Covenant Analysis

Compliance expectations

We expect Piedmont to comply with the terms of its covenant agreements throughout our forecast period, even with a 10% decline in EBITDA.

Requirements

Piedmont is part of Duke Energy's master credit facility, which includes a covenant that requires Piedmont's total-debt-to-total-capitalization ratio to not exceed 70%.

Environmental, Social, And Governance

Piedmont's environmental exposure is in line with other regulated natural gas utility providers, including as it relates to methane emissions. This includes the potential for operational or financial risks to arise if regulation governing methane emissions become more restrictive.

Social and governance factors are neutral. Piedmont's record of service reliability could support the company's ability to maintain social cohesion. Our views of Piedmont's governance is tied to our views of its parent, Duke Energy.

Group Influence

Our rating on Piedmont incorporates our view of the company as a strategically important subsidiary of Duke Energy, meaning that we largely view Piedmont as unlikely to be sold and as important to the group's long-term strategy. Because we assess Piedmont as not sufficiently insulated from its parent, the issuer credit rating on the company is in line with Duke's group credit profile.

Issue Ratings - Subordination Risk Analysis

Capital structure

Piedmont's capital structure consists of nearly \$2.9 billion of both short-term and long-term debt.

Analytical conclusions

We rate Piedmont's senior unsecured debt the same as our issuer credit rating on the company because it is unsecured debt of a qualifying investment-grade regulated utility. The A-2 short-term rating reflects our issuer credit rating on the company.

Ratings Score Snapshot

Issuer Credit Rating

BBB+/Stable/A-2

Business risk: Excellent

- Country risk: Very low
- Industry risk: Very low
- Competitive position: Excellent

Financial risk: Intermediate

- Cash flow/leverage: Intermediate

Anchor: a+

Modifiers

- **Diversification/portfolio effect:** Neutral (no impact)
- **Capital structure:** Neutral (no impact)
- **Financial policy:** Neutral (no impact)
- **Liquidity:** Adequate (no impact)
- **Management and governance:** Satisfactory (no impact)
- **Comparable rating analysis:** Negative (-1 notch)

Stand-alone credit profile : a

- **Group credit profile:** bbb+
- **Entity status within group:** Strategically important (-2 notches from SACP)

Related Criteria

- General Criteria: Group Rating Methodology, July 1, 2019
- General Criteria: Hybrid Capital: Methodology And Assumptions, July 1, 2019
- Criteria | Corporates | General: Corporate Methodology: Ratios And Adjustments, April 1, 2019
- Criteria | Corporates | General: Reflecting Subordination Risk In Corporate Issue Ratings, March 28, 2018
- General Criteria: Methodology For Linking Long-Term And Short-Term Ratings, April 7, 2017
- Criteria | Corporates | General: Methodology And Assumptions: Liquidity Descriptors For Global Corporate Issuers, Dec. 16, 2014
- Criteria | Corporates | Utilities: Key Credit Factors For The Regulated Utilities Industry, Nov. 19, 2013
- General Criteria: Country Risk Assessment Methodology And Assumptions, Nov. 19, 2013
- General Criteria: Methodology: Industry Risk, Nov. 19, 2013
- Criteria | Corporates | General: Corporate Methodology, Nov. 19, 2013
- Criteria | Corporates | Utilities: Collateral Coverage And Issue Notching Rules For '1+' And '1' Recovery Ratings On Senior Bonds Secured By Utility Real Property, Feb. 14, 2013
- General Criteria: Methodology: Management And Governance Credit Factors For Corporate Entities, Nov. 13, 2012
- General Criteria: Principles Of Credit Ratings, Feb. 16, 2011

Business And Financial Risk Matrix

Business Risk Profile	Financial Risk Profile					
	Minimal	Modest	Intermediate	Significant	Aggressive	Highly leveraged
Excellent	aaa/aa+	aa	a+/a	a-	bbb	bbb-/bb+
Strong	aa/aa-	a+/a	a-/bbb+	bbb	bb+	bb
Satisfactory	a/a-	bbb+	bbb/bbb-	bbb-/bb+	bb	b+
Fair	bbb/bbb-	bbb-	bb+	bb	bb-	b
Weak	bb+	bb+	bb	bb-	b+	b/b-
Vulnerable	bb-	bb-	bb-/b+	b+	b	b-

Ratings Detail (As Of February 9, 2021)*

Piedmont Natural Gas Co. Inc.

Issuer Credit Rating BBB+/Stable/A-2

Senior Unsecured BBB+

Issuer Credit Ratings History

26-Jan-2021 BBB+/Stable/A-2

15-Dec-2020 A-/Negative/A-2

20-Nov-2019 A-/Stable/A-2

20-May-2019 A-/Negative/A-2

05-Feb-2019 A-/Stable/A-2

20-Jun-2017 A-/Stable/NR

12-Jan-2017 A-/Stable/A-2

14-Oct-2016 A-/Negative/A-2

Related Entities

Cinergy Corp.

Issuer Credit Rating A-/Negative/A-2

Duke Energy Carolinas LLC

Issuer Credit Rating A-/Negative/A-2

Senior Secured A

Senior Unsecured A-

Duke Energy Corp.

Issuer Credit Rating A-/Negative/A-2

Commercial Paper

Local Currency A-2

Junior Subordinated BBB

Preferred Stock BBB

Senior Unsecured BBB+

Duke Energy Florida, LLC

Issuer Credit Rating A-/Negative/A-2

Senior Secured A

Senior Unsecured A-

Duke Energy Indiana Inc.

Issuer Credit Rating A-/Negative/A-2

Ratings Detail (As Of February 9, 2021)*(cont.)

Senior Secured	A
Senior Unsecured	A-
Duke Energy Kentucky Inc.	
Issuer Credit Rating	A-/Negative/A-2
Senior Unsecured	A-
Duke Energy Ohio Inc.	
Issuer Credit Rating	A-/Negative/A-2
Senior Secured	A
Senior Unsecured	A-
Duke Energy Progress, LLC	
Issuer Credit Rating	A-/Negative/A-2
Preferred Stock	BBB
Senior Secured	A
Senior Unsecured	A-
Florida Progress Corp.	
Issuer Credit Rating	A-/Negative/NR
Progress Energy Inc.	
Issuer Credit Rating	A-/Negative/NR
Senior Unsecured	BBB+

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Piedmont Natural Gas
13 Month Average Capital Structure
as of May 31, 2021

[BEGIN CONFIDENTIAL]

	Amount (\$)	Ratio
Long-Term Debt	2,707,488,369	48.81%
Short-Term Debt	36,227,098	0.65%
Common Equity	2,803,794,382	50.54%
Total	5,547,509,849	100.00%

	Monthly Balance	Long-Term Debt	Short-Term Debt ¹	Common Equity	Total Capitalization
1	May-20				
2	Jun-20				
3	Jul-20				
4	Aug-20				
5	Sep-20				
6	Oct-20				
7	Nov-20				
8	Dec-20				
9	Jan-21				
10	Feb-21				
11	Mar-21				
12	Apr-21				
13	May-21				
13 Month Average		2,707,488,369	36,227,098	2,803,794,382	5,547,509,849

[END CONFIDENTIAL]

¹. Gas Inventory per Public Staff witness Feasel, Exhibit I, Schedule 2-2.

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PIEDMONT'S CAPITAL ACCOUNTS

	[A=B+E+J]	[B=C-D]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J=F+G+H+I]
Month	Total Capitalization	Total Long-Term Debt	Long-Term Debt	Unamortized Debt Expense	Public Staff Gas Inventory	Common Stock	Retained Earnings	Other Comprehensive Income	Balance in Paid in Capital	Total Common Equity
May-20										
Jun-20										
Jul-20										
Aug-20										
Sep-20										
Oct-20										
Nov-20										
Dec-20										
Jan-21										
Feb-21										
Mar-21										
Apr-21										
May-21										

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Aug 05 2022

Investment Risk Measures

Group of Natural Gas Utility Companies

Company Name	Value Line ⁴					S&P ² Beta	S&P ⁵ Quality	S&P ⁶ Bond	Moody's ⁶ Bond
	Safety Rank	Beta	Price Stability	Earnings Predict.	Financial Strength		Ranking	Rating	Rating
1 Atmos Energy	1	0.80	95	100	A+	0.39	A	A-	A1
2 Chesapeake Utilities	2	0.80	85	95	A	0.39	A	NA	NA
3 MDU Resources	3	1.10	75	75	B++	0.79	A-	BBB+	NA
4 National Fuel Gas	3	0.85	95	5	B+	0.74	B	BBB-	Baa3
5 New Jersey Resources	2	1.00	80	55	A+	0.54	A	NA	A1
6 Northwest Natural	3	0.85	85	5	A	0.46	B+	A+	Baa1
7 ONE Gas Inc.	2	0.80	95	100	B++	0.41	NR	BBB+	A3
8 South Jersey Inds.	3	1.05	60	65	B++	0.87	B+	BBB	NA
9 Southwest Gas	3	0.95	80	100	A	0.16	A	BBB+	Baa2
10 Spire Inc.	2	0.85	90	50	B++	0.3	A-	A-	Baa2
11 UGI Corp.	2	1.00	85	85	B++	0.99	A	NA	NA
Average	2.4	0.91	84	67		0.55			

Sources:

¹Value Line Investment Survey, May 28, 2021.

² CFRA, S&P Global Market Intelligence, Stock Report, July 17, 2021.

³ S&P Global Market Intelligence, CFRA Stock Report, July 23, 2021.

DCF MODEL

Company	Yield ²	Value Line ¹ Historical						Value Line Forecast			Yahoo ³
		EPS	DPS	BPS	EPS	DPS	BPS	EPS	DPS	BPS	EPS
		10-Yr	10-Yr	10-Yr	5-Yr	5-Yr	5-Yr	5-Yr ⁴	5-Yr	5-Yr	5-Yr
1 Atmos Energy	2.6	8.0	5.0	7.5	9.0	7.5	10.0	7.0	7.5	10.5	7.2
2 Chesapeake Utilities	1.6	9.5	6.5	9.5	9.0	7.5	11.0	8.5	8.0	6.5	4.7
3 MDU Resources	2.6	0.5	3.0	---	5.5	4.5	-0.5	10.5	2.5	7.5	7.2
4 National Fuel Gas	3.4	3.5	3.0	1.0	4.0	2.5	-3.0	19.0	4.0	8.5	8.5
5 New Jersey Resources	3.2	6.0	7.0	7.5	5.5	6.5	8.5	2.0	5.5	5.5	6.0
6 Northwest Natural Gas	3.6	-1.5	1.5	1.0	1.5	0.5	---	5.5	0.5	8.5	3.8
7 One Gas	3.1	---	---	---	10.0	14.5	3.0	6.5	7.0	10.5	5.0
8 South Jersey inds.	4.9	1.5	6.5	5.5	-1.5	4.0	2.5	11.5	4.5	6.5	4.8
9 Southwest Gas Corp	3.5	7.5	8.5	6.0	5.5	8.0	7.0	9.0	4.5	6.0	4.0
10 Spire	3.6	1.5	4.5	7.0	4.5	6.0	5.5	10.0	4.5	9.0	7.3
11 UGI Corp.	3.0	5.5	8.0	7.0	7.0	7.5	5.5	6.0	4.5	7.0	7.7
Average	3.2	4.8	5.4	5.8	6.2	6.3	6.6	7.7	4.8	7.8	6.0
Average DCF Result		8.0	8.6	9.0	9.4	9.5	9.8	10.9	8.0	11.0	9.2

Sources:

¹Value Line Investment Survey, May 28, 2021

²Value Line Investment Survey, Summary and Index, Feb. 5, 2021 through June 23, 2021.

³Yahoo Finance, Projected Five Year Earnings Estimates, downloaded on June 30, 2021.

⁴ The 5-Yr. average calculation excludes the 19% growth estimate National Fuel Gas due to unsustainability.

Note:

Average calculation does not include negative values.

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REGRESSION ANALYSIS OF APPROVED RETURNS ON EQUITY
FOR LOCAL NATURAL GAS DISTRIBUTION UTILITIES

		[A]	[B]	[C]=[A]-[B]
		General Rate Case		
		Gas Utility Approved ROE ¹	Moody's A-Rated Bond Yields ²	Gas Utility Risk Premium
	Year			
1	2007	10.22%	6.05%	4.17%
2	2008	10.39%	6.51%	3.88%
3	2009	10.22%	6.04%	4.19%
4	2010	10.15%	5.47%	4.68%
5	2011	9.91%	5.04%	4.87%
6	2012	9.93%	4.13%	5.80%
7	2013	9.68%	4.48%	5.20%
8	2014	9.78%	4.28%	5.50%
9	2015	9.60%	4.12%	5.49%
10	2016	9.53%	3.93%	5.60%
11	2017	9.73%	4.00%	5.73%
12	2018	9.59%	4.25%	5.34%
13	2019	9.72%	3.77%	5.95%
14	2020	9.46%	3.02%	6.45%
15	2021	9.62%	3.15%	6.47%
		Average		5.29%

Sources:

¹ S&P Global Market Intelligence, Regulatory Research Associates, "Major Rate Case Decisions. January - June 2021, July 27, 2021.

² Moody's Bond Yields with annual data from January, 2007 through June, 2021.

REGRESSION ANALYSIS OF ALLOWED RETURNS ON EQUITY
FOR LOCAL NATURAL GAS DISTRIBUTION UTILITIES

<i>Regression Statistics</i>	
Multiple R	0.925636275
R Square	0.856802513
Adjusted R Squar	0.845787322
Standard Error	0.001132705
Observations	15

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	9.97981E-05	9.98E-05	77.783716	7.56897E-07
Residual	13	1.66793E-05	1.283E-06		
Total	14	0.000116477			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>
Intercept	0.086826205	0.001339326	64.828303	1.038E-17
X Variable 1	0.253513724	0.028744657	8.8195077	7.569E-07

A-Rated Public Utility Bond Yield	
Feb-21	3.09%
Mar-21	3.44%
Apr-21	3.30%
May-21	3.33%
Jun-21	3.16%
Jul-21	2.95%
Average	3.21%

Predicted Cost of Equity **9.50%**

Note:

Predicted Cost of Equity of 9.50% = 0.08688681 + 0.25351372 x 3.21%.

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COMPARABLE EARNINGS ANALYSIS

	2015	2016	2017	2018	2019	2020
1 Atmos Energy	9.9%	10.1%	9.8%	9.3%	8.9%	8.6%
2 Chesapeake Utilities	11.1%	10.0%	9.0%	10.9%	10.9%	10.1%
3 MDU Resources	7.3%	9.7%	11.7%	10.5%	11.8%	12.7%
4 National Fuel Gas	NMF	NMF	16.6%	20.2%	14.5%	NMF
5 New Jersey Resources	13.9%	11.8%	12.1%	16.9%	11.3%	10.6%
6 Northwest Natural	6.9%	6.9%	NMF	8.8%	7.5%	7.9%
7 ONE Gas Inc.	6.5%	7.4%	8.2%	8.4%	8.5%	8.8%
8 South Jersey Inds.	9.5%	8.0%	8.2%	9.2%	7.2%	9.8%
9 Southwest Gas	8.7%	9.1%	9.6%	8.1%	8.5%	8.7%
10 Spire Inc.	8.7%	8.2%	8.1%	9.5%	7.9%	3.2%
11 UGI Corp.	13.1%	12.6%	12.9%	13.2%	10.8%	13.6%
Average	9.6%	9.4%	10.6%	11.4%	9.8%	9.4%

	<u>Average</u>	<u>Median</u>
Historical ROEs, 66 observations	10.0%	9.5%

Sources:

¹. Value Line Investment Survey, May 28, 2021.

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Summary

	Estimated Cost of Equity
<u>DCF Method</u>	
Historical Growth Rates	9.10%
Historical & Forecasted Growth Rates	9.35%
Predicted Growth Rates	9.73%
<u>Risk Premium Method - LDCs</u>	9.50%
Average	9.42%

Experts Forecast Long-Term Stock and Bond Returns: 2019 Edition

Christine Benz
Jan 10, 2019

Savvy investors might view market predictions as pure folly. After all, it's next to impossible to predict what the market will return, especially over shorter time periods, so why bother?

It's certainly a mistake to try to predict the market in an effort to determine whether, when, and how much to hold in stocks and other asset classes. Even professional investors have struggled with tactical asset allocation, casting doubt on the ability of individual investors or even financial advisors to outperform strategic asset allocation with the approach.

But the fact is, even long-term, strategically minded investors need some type of market-return forecast to craft a financial plan. Without any view on how much stocks, bonds, and cash are apt to return, it's impossible to know how much you'll need to save and for how long. You can't know whether saving for retirement should be your sole financial preoccupation or whether you can hit other goals, such as college funding, along the way. To help turn your financial goals into reality, it's crucial to make assumptions about what the major asset classes, and in turn your own portfolio, are apt to return. That way you can determine how much of the heavy lifting for your plan will come from market appreciation and how much will have to come from your own contributions.

To help you arrive at an educated guess of how much the market will contribute to the success of your plan, I've been compiling annual looks at return expectations from market experts both inside and outside of Morningstar. Note that the parameters for these return estimates vary a bit; some of the return expectations are inflation-adjusted while others are not (nominal). Some of them are quite recent, while others date to earlier in 2018. In addition, some of the experts forecast returns for the next decade, while others employ slightly shorter time horizons.

Yet there were some commonalities among many of the forecasts. First, starting yields on intermediate-term bonds, historically a good predictor of future returns from bonds, suggest that bonds will give U.S. equities a run for their money over the next decade. In addition, many of the market forecasts suggest higher returns

from non-U.S. stocks, especially emerging markets, than U.S. over the next decade.

Before you take those return forecasts to the bank, however, it's important to bear in mind that these return estimates are more intermediate term than they are long. As such, they're the most relevant to investors whose time horizons are in that ballpark, or to new retirees who face sequence-of-return risk in the next decade. Investors with very long time horizons of 20 to 30 years or longer can reasonably assume that market returns will run in line with their very long-term historic norms: 8% to 10% for stocks and half that amount for bonds.

BlackRock Investment Institute

Highlights: 7% nominal (non-inflation-adjusted) return for U.S. large caps over the next decade; 9% for non-U.S. large caps; 3.3% for the U.S. Aggregate Bond index(December 2018).

Bond index(December 2018).

BlackRock Investment Institute's Capital Markets Assumption report is heavy on the disclaimers, noting that the assumptions are "not intended as a recommendation to invest in any particular asset class or strategy or as a promise--or even estimate--of future performance." For each asset class, the firm provides a median expected return, as well as "uncertainty bands" depicting returns in a range. The firm provides assumptions for conventional asset classes as well as nontraditional ones such as hedge funds and private equity.

BlackRock Investment Institute's 7% median expected return for U.S. stocks put it at the high end of our sampling, but its expectation that foreign stocks would outperform (9% for foreign large caps) was a common theme across many of the firms. Notably, however, BlackRock Investment Institute is less sanguine about the prospects for emerging markets than it is for the broad universe of global non-U.S. equities, making it something of an outlier among many of the firms in our sample.

John C. Bogle, founder of Vanguard Group

Highlights: 4%-5% returns for stocks (nominal); 4% nominal returns for bonds over the next decade (October 2018).

In an interview in October (prior to the recent market volatility), the Vanguard founder was a bit more optimistic about returns from U.S. stocks over the next decade than he had been in previous years. As always, Bogle backs into his

return forecast by looking at the equity market's current dividend yield, then factors in expected earnings growth and P/E multiple expansion or contraction. The S&P 500 currently yields about 2%, and Bogle expected in late October that earnings growth would run in the range of 5%. He then gave that 7% expected return (the 2% dividend yield plus 5% earnings growth) a haircut to account for his expected P/E contraction, bringing his self-described "reasonable expectation" for stocks down to between 4% and 5%. To arrive at his 4% return expectations for bonds over the next decade, Bogle uses a blend of the starting yields for Treasuries and high-quality corporates.

GMO

Highlights: negative 4.1% real (inflation-adjusted) returns for U.S. large caps over the next seven years; negative 0.2% real returns for U.S. bonds; 4.4% real returns for emerging-markets equities; 2.9% real returns for emerging-markets debt (November 2018).

As always, the return expectations from the notoriously pessimistic Grantham Mayo Van Otterloo run toward the gloomy side of our collected prognostications. The firm expects U.S. large caps and hedged international bonds to post the worst performance of all of its major asset classes over the next 7 years: It's forecasting negative 4.1% real returns for the former and negative 2.1% real returns from dollar-hedged international bonds from developed markets. The firm expects U.S. small-cap stocks to perform much better than large, but still believes that U.S. small-cap investors will sink into the red on an inflation-adjusted basis, losing 0.7%.

Consistent with its recent expectations, the firm is most sanguine about the prospects for emerging-markets equities and bonds, forecasting 4.4% real returns for emerging-markets equities and 2.9% gains for emerging-markets bonds. The firm is more optimistic still for the subset of emerging-markets equities it considers emerging markets value stocks, predicting a nearly 8% real return for the asset class.

It's worth noting that the firm's pessimism on U.S. equities and positive outlook for emerging markets has cost it on the return front over the past several years: Wells Fargo Absolute Return (WARAX), which GMO manages, has recently struggled and earns a Neutral rating from Morningstar's analyst team.

J.P. Morgan Asset Management

Highlights: 5.25% return assumption (nominal) for U.S. equities over a 10- to 15-year horizon; 4.5% nominal return assumption for U.S. investment-grade corporate bonds over 10- to 15-year holding period (October 2018).

J.P. Morgan Asset Management updates its capital return assumptions for major asset classes annually, and notes that its assumptions are little changed from 2018. One of the biggest upward revisions in the firm's return assumptions was in the realm of U.S. high-quality corporate bonds, from 3.5% to 4.5%. As with several of the other firms, J.P. Morgan Asset Management is more sanguine about the prospects for emerging markets equities than developed markets stocks; the firm's assumption is for an 8.5% return from the asset class over the next 10 to 15 years, a function of lower starting valuations.

Note that J.P. Morgan Asset Management expresses its return assumptions in nominal, rather than inflation-adjusted, terms. However, the firm describes its inflation expectations as dovish, meaning that it expects inflation to continue to be mild. Additionally, it's important to note that the firm published its report before markets took a dive at the end of 2018.

Morningstar Investment Management

Highlights: 1.8% 10-year nominal returns for U.S. stocks; 3.3% 10-year nominal returns for U.S. bonds (Sept. 30, 2018).

The headline here is that as of Sept. 30, 2018, Morningstar Investment Management expected higher gains from U.S. bonds than U.S. stocks over the next decade. As with GMO, however, the outlook is more optimistic for foreign equities: MIM expects U.S. holders of international developed equities to earn nearly 6% on a nominal (noninflation-adjusted) basis, and U.S. holders of emerging-markets equities to earn nearly 7% nominally. Morningstar Investment Management provides its latest return expectations in Morningstar Markets Observer; the latest issue will be out this month.

Research Affiliates

Highlights: 0.7% real returns for U.S. large caps during the next 10 years; 0.5% real returns for the Barclays U.S. Aggregate Bond Index (Dec. 31, 2018; valuation-dependent model).

Research Affiliates deserves plaudits for its intuitive and user-friendly scatter plot depicting the firm's expectations for 10-year returns and volatility from the major

can also adjust to see return expectations based on a valuation-focused model and one focused on dividends and growth.

The firm's recent 10-year risk/return expectations suggest that U.S. investors relying strictly on U.S. stocks and bonds could be disappointed over the next decade: The firm's valuation-dependent model calls for a 0.7% real return for U.S. large-cap stocks and 0.5% inflation-adjusted gains for the U.S. Aggregate Bond Index. Real return expectations are more encouraging for those two asset classes using the firm's "yield and growth" model--3.3% for U.S. large caps and 0.6% for the U.S. Aggregate Bond Index.

Like GMO and Morningstar, the firm has higher return expectations from foreign stocks and especially emerging markets. Its valuation-dependent model suggests a nearly 6% real return over the next decade from the MSCI EAFE index (developed markets foreign stocks) and a nearly 8% return from emerging markets equities.

Vanguard

Highlights: Nominal U.S. equity-market returns in the 3% to 5% range during the next decade; 6% to 8% returns for non-U.S. equities; 2.5% to 4.5% expected returns for global fixed-income markets (December 2018).

In its 2019 Economic and Market Outlook, Vanguard's Investment Strategy Group wrote that its 10-year return assumptions for global stocks and bonds are modestly higher than this time last year. But the firm isn't forecasting blockbuster gains from any of the major asset classes. It's expecting U.S. equities to post gains in the 3% to 5% range, lower than its forecast for non-U.S. equities (6% to 8%). Thus, like other firms, it's emphasizing the importance of geographic diversification. In contrast with several of the aforementioned firms, however, Vanguard calls valuations in emerging markets "stretched." Ditto for valuations in the U.S., which Vanguard's economists expect to contract as yields rise over the next decade.

Note that Vanguard expresses its capital markets return assumptions in nominal rather than inflation-adjusted terms. However, the report's authors don't see any reason for investors to expect runaway inflation.

Source:

<https://www.morningstar.com/articles/907378/experts-forecast-longterm-stock-and-bond-returns-2>

Why Market Returns May Be Lower and Global Diversification More Important in the Future

May 3, 2021



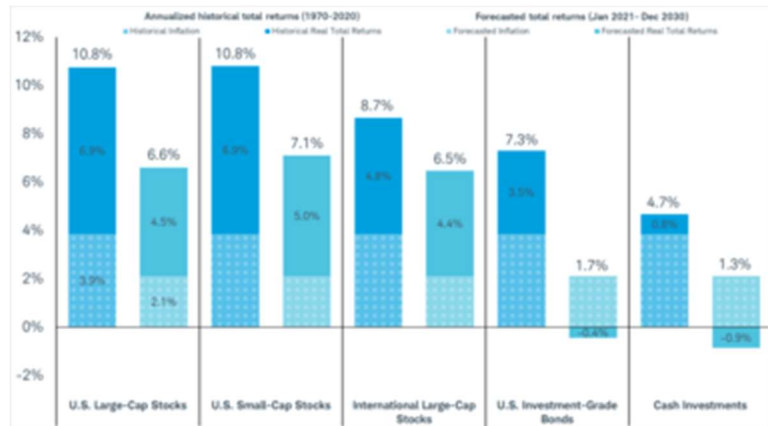
By [Veeru Perianan](#)

Market returns on stocks and bonds over the next decade are expected to fall short of historical averages, according to our 2021 estimates.¹ This article provides a broad overview of the methodology used for calculating our capital market return estimates and highlights the importance of diversification and staying focused on long-term financial objectives that are based on reasonable expectations.

The main factors behind the lower expectations for market returns are historically low interest rates, tepid long-term economic growth prospects, and elevated equity valuations.

The reduced outlook follows an extended period of double-digit returns for some asset classes, as shown in the chart below. As such, now may be a good time for investors to review, and consider resetting, long-term financial goals to ensure that they are based on projections grounded in disciplined methodology rather than on historical averages.

Curb your expectations



Total return = price growth plus dividend and interest income. The example does not reflect the effects of taxes or fees. Numbers rounded to the nearest one-tenth of a percentage point. Benchmark indexes for the asset classes: S&P 500® index (U.S. Large-Cap Stocks), Russell 2000® (U.S. Small-Cap Stocks), MSCI EAFE Index® (International Large-Cap Stocks), Bloomberg Barclays U.S. Aggregate Bond Index (U.S. Investment-Grade Bonds), and Citigroup 3-Month U.S. Treasury Bill Index (Cash Investments). Historical inflation is based on Consumer Price Index for All Urban Consumers, published by U.S. Bureau of Labor Statistics. **Past performance is no guarantee of future results.**

Source: Charles Schwab Investment Advisory, Inc. Historical data from Morningstar Direct. Data as of 12/31/2020.

Our estimates show that, over the next 10 years, stocks and bonds will likely fall short of their historical annualized returns from 1970 to December 2020. The estimated annual expected return for U.S. large-capitalization stocks from January 2021 to December 2030 is 6.6%, for example, compared with an annualized return of 10.8% during the historical period. Small-capitalization stocks, international large-capitalization stocks, core bonds, and cash investments also are projected to post lower returns through December 2030. We find the same pattern with *real* returns for these investments (i.e., returns after removing the effect of inflation). Which suggests that the reasons for this are more complex, and rest on the fundamental drivers of economic growth.

Expectations of rising inflation have been on many an investor's mind lately. The reasons are understandable, especially due to the Federal Reserve's current accommodative monetary policy as a response to the aftereffects of the pandemic on the economy. As the economy opens up and demand ramps up ahead of supply chains coming online, there could be increased inflationary pressures in the near term, but we do not believe this extends to the long term. As the economy readjusts, and we look toward the long term, we expect future inflation to remain benign at 2.1%. This is based on consensus estimates of leading economists, and is quite a bit lower than historical inflation, which has averaged 3.9% since 1970. The impact of inflation can be felt across asset classes, but most adversely in case of cash and bonds.

Cash expected returns are expected to remain low. Monetary policy, combined with investors' flight to safety, has caused bond term premiums—that is, the difference between the yields earned by locking up money over an extended period vs. rolling over a short-term instrument (like Treasury bills) for the same period—to turn negative. This suggests that bond returns are also likely to remain subdued.

Here are answers to frequently asked questions about these market estimates:

Why are long-term estimates of returns important?

A sound financial plan serves as a road map to help investors reach long-term financial goals. To get there, investors need reasonable expectations for long-term market returns.

Return expectations that are too optimistic, for example, could mislead investors to expect their investments to grow at an unrealistically high rate. This may cause them to save less, in the hope that their investments might grow large enough to fund their retirement or big expenses. But when actual returns do not match these expectations, it could lead to a delayed retirement or make it difficult to pay for a big expense, such as a college education. On the other hand, if return expectations are overly pessimistic, too much may be saved in the nest egg at the expense of everyday living.

How do you calculate your long-term forecasts?

The long-term estimates cover a 10-year time horizon. We take a forward-looking approach to forecasting returns, rather than basing our estimates on historical averages. Historical averages are less useful, as these only describe past performance. Forward-looking return estimates, however, incorporate expectations for the future, making them more useful for making investment decisions.

For U.S. and international large-cap stocks, we use analyst earnings estimates and macroeconomic forecast data to estimate two key cash-flow drivers of investment returns: recurring investment income (earnings) and capital gains generated by selling the investment at the end of the

forecast horizon of 10 years. To arrive at a return estimate, we answer the question: What returns would investors make if they bought these assets at the current price level to obtain these forecasted future cash flows?

For U.S. small-capitalization stocks, we forecast the returns by analyzing and including the so-called “size risk premium.” This is the amount of money that investors in small-capitalization stocks expect to earn over and above the returns on U.S. large-capitalization stocks.

For the U.S. investment-grade bonds asset class, which includes Treasuries, investment-grade corporate bonds and securitized bonds, our forecast takes into account yield-to-maturity of a risk-free bond, roll-down return, and a credit risk premium.² We believe the future level of return an investor will receive is anchored to a large extent by the yield of a 10-year U.S. Treasury bond. Treasury bonds are generally considered to be default-risk-free. Aside from this, roll-down return is an additional source of return bond fund investors typically earn, as they almost always invest in a bond portfolio that is designed to maintain an average maturity. For example, a roll-down return occurs when a bond fund manager sells a bond whose maturity falls below the average maturity of the portfolio. This process typically results in a gain because yields on bonds with longer maturities are usually higher than on shorter maturities, and because bond prices rise when yields fall. Credit risk premium is the return an investor earns for taking on the risk of default, as when investing in a relatively riskier bond, such as a corporate bond.

Cash investments are very short-term in nature, typically not exceeding three months at a given time, and are reinvested at the end of each period for as long of a horizon as desired. We assume this horizon to be 10 years and estimate the returns from cash investments over this period using a term premium model.

Why do you expect long-term returns to be lower than historical averages?

Three primary factors are behind the forecast for reduced returns: low interest rates, low economic growth, and equity valuations.

- **Low interest rates.** Lower inflation affects yields on everything from cash to 30-year Treasury bonds. As noted earlier, inflation is low by historical standards and expected to remain so over the next 10 years. When the rate of inflation is low, *nominal* bond yields also have been low. That is because bond investors generally do not require as much yield premium to compensate for the erosion in buying power that inflation can inflict on a portfolio. Nominal bond yields are the yields that investors typically notice and does not remove the impact of inflation, as *real* yields do. Current and expected interest rates are much lower than what has transpired historically, especially compared to the high-interest-rate environment of the 1980s. The Fed has once again started following a zero-interest-rate policy in response to the economic fallout due to COVID-19. Low yields mean investors earn less from the fixed-income portion of their portfolios.

- **Low economic growth.** Economic growth and inflation typically go hand in hand. Strong economic growth typically causes rising inflation, as demand grows faster than supply. Inflation induced by growth is a good thing, as asset returns also tend to increase. At present, while near term economic growth is likely to be robust, as the economy opens up (post-pandemic), consensus forecasts of economic growth over the long term remain subdued. A measure of economic growth is

annual *real* gross domestic product (GDP) growth. A robust economy is fundamental to achieving healthy returns from the financial markets. Everything from monetary policy, to interest rates and company earnings are linked to this. According to consensus forecasts, economists expect 2.3% GDP growth per year, on average, over the next 10 years, even after accounting for expectations of increased economic activity post-pandemic. This compares to historical average GDP growth of 3.1% per year (since 1948).

- ***Equity valuations.*** Valuations appear to be stretched compared to last March's levels. While earnings growth is expected to remain strong in the medium term—as the economy starts to get back to normal post-pandemic—the stock rally since last March has run far ahead of these expectations. High stock prices today, without a proportionate increase in future earnings, mean lower expected returns going forward. But stocks still tend to have higher expected returns than bonds, as they generally have higher risks.

What could lead to higher returns?

Returns could exceed our expectations if the U.S. economy grows more than economists anticipate. Higher-than-expected economic growth would likely lead to higher earnings growth, driving stock and bond returns higher. An example of the economy growing faster than expected occurred from 1990 to 1999. During that period, economists expected annual GDP growth of 2.4%, while the U.S. economy grew at a much higher rate of 3.4% annually on average. Corresponding returns from U.S. large-capitalization stocks were 18.2% on average and core bonds averaged 7.7% despite severe market turbulence in 1998.

What can investors do now?

Thanks to the power of compound returns, what investors do (or don't do) today can have big implications on their ability to meet their long-term goals.

Here are a few things to consider doing. First, if you don't have a long-term [financial plan](#), now is a good time to put one together. Second, try to minimize fees and taxes, particularly in a lower-return environment. And last but not least: Build a [well-diversified portfolio](#).

Piedmont Natural Gas
Overall Cost of Capital and Capital Structure
as of May 31, 2021

	Amount (\$)	Ratio	Cost Rate	Weighted Cost Rate ¹	Pre-Tax Cost of Capital ²
Long-Term Debt	2,707,488,369	48.81%	4.08%	1.991%	2.002%
Short-Term Debt	36,227,098	0.65%	0.20%	0.001%	0.001%
Common Equity	2,803,794,382	50.54%	9.42%	4.761%	6.216%
Total	5,547,509,849	100.00%		6.75%	8.22%
Pre-Tax Interest Coverage ²					4.1

Note:

¹ The calculation of the weighted cost rate is rounded to the thousandth place.

² The pre-tax cost of debt and equity is grossed up by tax retention factors of 0.9944 for debt capital and 0.7659 for equity capital.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
RETURN ON ORIGINAL COST RATE BASE
For The Test Year Ended March 31, 2022

Public Staff WSIP Exhibit 1
Schedule 1(a)

CWSNC WATER OPERATIONS

Line No.	Item	<u>Base Year</u>				
		Capitalization	Original	Embedded	Overall	Net
		Ratio [1]	Cost Rate Base	Cost	Cost Rate [7]	Operating Income
		(a)	(b)	(c)	(d)	(e)
<u>Present Rates:</u>						
1	Debt	50.00%	\$35,624,976 [2]	4.64% [1]	2.32%	\$1,652,999 [8]
2	Equity	50.00%	35,624,977 [2]	8.35% [6]	4.18%	2,972,915 [9]
3	Total	<u>100.00%</u>	<u>\$71,249,953</u> [3]		<u>6.50%</u>	<u>\$4,625,914</u> [10]
<u>Company Proposed Rates:</u>						
4	Debt	50.00%	\$35,624,976 [4]	4.64% [1]	2.32%	\$1,652,999 [8]
5	Equity	50.00%	35,624,977 [4]	11.85% [6]	5.93%	4,220,592 [11]
6	Total	<u>100.00%</u>	<u>\$71,249,953</u> [3]		<u>8.25%</u>	<u>\$5,873,591</u> [12]
<u>Public Staff Recommended Rates:</u>						
7	Debt	50.00%	\$35,624,976 [5]	4.64% [1]	2.32%	\$1,652,999 [8]
8	Equity	50.00%	35,624,977 [5]	9.25% [1]	4.63%	3,295,310 [13]
9	Total	<u>100.00%</u>	<u>\$71,249,953</u> [3]		<u>6.95%</u>	<u>\$4,948,309</u> [14]

[1] Per Public Staff Financial Analyst Hilton.

[2] Column (a) multiplied by Line 3, Column (b).

[3] Public Staff WSIP Exhibit 1, Schedule 2(a), Column (c), Line 18.

[4] Column (a) multiplied by Line 6, Column (b).

[5] Column (a) multiplied by Line 9, Column (b).

[6] Column (e) divided by Column (b).

[7] Column (a) multiplied by Column (c).

[8] Column (b) multiplied by Column (c).

[9] Line 3 minus Line 1, Column (e).

[10] Public Staff WSIP Exhibit 1, Schedule 3(a), Column (c), Line 37.

[11] Line 6 minus Line 4, Column (e).

[12] Public Staff WSIP Exhibit 1, Schedule 3(a), Column (e), Line 37.

[13] Line 9 minus Line 7, Column (e).

[14] Public Staff WSIP Exhibit 1, Schedule 3(a), Column (g), Line 37.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
RETURN ON ORIGINAL COST RATE BASE
For The Test Year Ended March 31, 2022

Public Staff WSIP Exhibit 1
Schedule 1(b)

CWSNC SEWER OPERATIONS

Line No.	Item	Capitalization Ratio [1]	Original Cost Rate Base [2]	<u>Base Year</u>		Overall Cost Rate [7]	Net Operating Income [8]
				Embedded Cost			
		(a)	(b)	(c)		(d)	(e)
<u>Present Rates:</u>							
1	Debt	50.00%	\$33,452,169 [2]	4.64% [1]		2.32%	\$1,552,181 [8]
2	Equity	50.00%	33,452,169 [2]	6.42% [6]		3.21%	2,147,840 [9]
3	Total	100.00%	<u>\$66,904,338 [3]</u>			<u>5.53%</u>	<u>\$3,700,021 [10]</u>
<u>Company Proposed Rates:</u>							
4	Debt	50.00%	\$33,452,169 [4]	4.64% [1]		2.32%	\$1,552,181 [8]
5	Equity	50.00%	33,452,169 [4]	10.34% [6]		5.17%	3,458,372 [11]
6	Total	100.00%	<u>\$66,904,338 [3]</u>			<u>7.49%</u>	<u>\$5,010,553 [12]</u>
<u>Public Staff Recommended Rates:</u>							
7	Debt	50.00%	\$33,452,169 [5]	4.64% [1]		2.32%	\$1,552,181 [8]
8	Equity	50.00%	33,452,169 [5]	9.25% [1]		4.63%	3,094,326 [13]
9	Total	100.00%	<u>\$66,904,338 [3]</u>			<u>6.95%</u>	<u>\$4,646,507 [14]</u>

[1] Per Public Staff Financial Analyst Hilton.

[2] Column (a) multiplied by Line 3, Column (b).

[3] Public Staff WSIP Exhibit 1, Schedule 2(b), Column (c), Line 18.

[4] Column (a) multiplied by Line 6, Column (b).

[5] Column (a) multiplied by Line 9, Column (b).

[6] Column (e) divided by Column (b).

[7] Column (a) multiplied by Column (c).

[8] Column (b) multiplied by Column (c).

[9] Line 3 minus Line 1, Column (e).

[10] Public Staff WSIP Exhibit 1, Schedule 3(b), Column (c), Line 37.

[11] Line 6 minus Line 4, Column (e).

[12] Public Staff WSIP Exhibit 1, Schedule 3(b), Column (e), Line 37.

[13] Line 9 minus Line 7, Column (e).

[14] Public Staff WSIP Exhibit 1, Schedule 3(b), Column (g), Line 37.

CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 400

RETURN ON ORIGINAL COST RATE BASE

For The Test Year Ended March 31, 2022

Public Staff WSIP Exhibit 1

Schedule 1(c)

BF/FH/TC WATER OPERATIONS

Line No.	Item	Base Year					Net Operating Income (e)
		Capitalization Ratio	Original Cost Rate Base	Embedded Cost	Overall Cost Rate		
		[1]			[7]		
		(a)	(b)	(c)	(d)	(e)	
<u>Present Rates:</u>							
1	Debt	50.00%	\$1,812,043 [2]	4.64% [1]	2.32%	\$84,079 [8]	
2	Equity	50.00%	1,812,043 [2]	5.06% [6]	2.53%	91,625 [9]	
3	Total	100.00%	\$3,624,086 [3]		4.85%	\$175,704 [10]	
<u>Company Proposed Rates:</u>							
4	Debt	50.00%	\$1,812,043 [4]	4.64% [1]	2.32%	\$84,079 [8]	
5	Equity	50.00%	1,812,043 [4]	14.89% [6]	7.45%	269,883 [11]	
6	Total	100.00%	\$3,624,086 [3]		9.77%	\$353,962 [12]	
<u>Public Staff Recommended Rates:</u>							
7	Debt	50.00%	\$1,812,043 [5]	4.64% [1]	2.32%	\$84,079 [8]	
8	Equity	50.00%	1,812,043 [5]	9.25% [1]	4.63%	167,614 [13]	
9	Total	100.00%	\$3,624,086 [3]		6.95%	\$251,693 [14]	

[1] Per Public Staff Financial Analyst Hilton.

[2] Column (a) multiplied by Line 3, Column (b).

[3] Public Staff WSIP Exhibit 1, Schedule 2(c), Column (c), Line 18.

[4] Column (a) multiplied by Line 6, Column (b).

[5] Column (a) multiplied by Line 9, Column (b).

[6] Column (e) divided by Column (b).

[7] Column (a) multiplied by Column (c).

[8] Column (b) multiplied by Column (c).

[9] Line 3 minus Line 1, Column (e).

[10] Public Staff WSIP Exhibit 1, Schedule 3(c), Column (c), Line 37.

[11] Line 6 minus Line 4, Column (e).

[12] Public Staff WSIP Exhibit 1, Schedule 3(c), Column (e), Line 37.

[13] Line 9 minus Line 7, Column (e).

[14] Public Staff WSIP Exhibit 1, Schedule 3(c), Column (g), Line 37.

CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 400

RETURN ON ORIGINAL COST RATE BASE

For The Test Year Ended March 31, 2022

Public Staff WSIP Exhibit 1

Schedule 1(d)

BF/FH SEWER OPERATIONS

Line No.	Item	Capitalization Ratio [1]	Original Cost Rate Base [2]	<u>Base Year</u>		Overall Cost Rate [7]	Net Operating Income [8]
				Embedded Cost			
		(a)	(b)	(c)		(d)	(e)
<u>Present Rates:</u>							
1	Debt	50.00%	\$4,914,878 [2]	4.64% [1]		2.32%	\$228,050 [8]
2	Equity	50.00%	4,914,878 [2]	8.91% [6]		4.46%	438,126 [9]
3	Total	100.00%	\$9,829,756 [3]			6.78%	\$666,176 [10]
<u>Company Proposed Rates:</u>							
4	Debt	50.00%	\$4,914,878 [4]	4.64% [1]		2.32%	\$228,050 [8]
5	Equity	50.00%	4,914,878 [4]	15.14% [6]		7.57%	743,922 [11]
6	Total	100.00%	\$9,829,756 [3]			9.89%	\$971,972 [12]
<u>Public Staff Recommended Rates:</u>							
7	Debt	50.00%	\$4,914,878 [5]	4.64% [1]		2.32%	\$228,050 [8]
8	Equity	50.00%	4,914,878 [5]	9.25% [1]		4.63%	454,626 [13]
9	Total	100.00%	\$9,829,756 [3]			6.95%	\$682,676 [14]

[1] Per Public Staff Financial Analyst Hilton.

[2] Column (a) multiplied by Line 3, Column (b).

[3] Public Staff WSIP Exhibit 1, Schedule 2(d), Column (c), Line 18.

[4] Column (a) multiplied by Line 6, Column (b).

[5] Column (a) multiplied by Line 9, Column (b).

[6] Column (e) divided by Column (b).

[7] Column (a) multiplied by Column (c).

[8] Column (b) multiplied by Column (c).

[9] Line 3 minus Line 1, Column (e).

[10] Public Staff WSIP Exhibit 1, Schedule 3(d), Column (c), Line 37.

[11] Line 6 minus Line 4, Column (e).

[12] Public Staff WSIP Exhibit 1, Schedule 3(d), Column (e), Line 37.

[13] Line 9 minus Line 7, Column (e).

[14] Public Staff WSIP Exhibit 1, Schedule 3(d), Column (g), Line 37.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
RETURN ON ORIGINAL COST RATE BASE
For The Rate Year 1 Ended March 31, 2024

Public Staff WSIP Exhibit 1
Schedule 1(a)(1)

CWSNC WATER OPERATIONS

Line No.	Item	<u>Rate Year 1</u>				
		Capitalization Ratio [1]	Original Cost Rate Base [1]	Embedded Cost [1]	Overall Cost Rate [7]	Net Operating Income [7]
		(a)	(b)	(c)	(d)	(e)
<u>Present Rates:</u>						
1	Debt	50.00%	\$38,379,333 [2]	4.64% [1]	2.32%	\$1,780,801 [8]
2	Equity	50.00%	38,379,333 [2]	9.33% [6]	4.67%	3,579,286 [9]
3	Total	100.00%	\$76,758,666 [3]		6.99%	\$5,360,087 [10]
<u>Company Proposed Rates:</u>						
4	Debt	50.00%	\$38,379,333 [4]	4.64% [1]	2.32%	\$1,780,801 [8]
5	Equity	50.00%	38,379,333 [4]	13.65% [6]	6.83%	5,237,489 [11]
6	Total	100.00%	\$76,758,666 [3]		9.15%	\$7,018,290 [12]
<u>Public Staff Recommended Rates:</u>						
7	Debt	50.00%	\$38,379,333 [5]	4.64% [1]	2.32%	\$1,780,801 [8]
8	Equity	50.00%	38,379,333 [5]	9.25% [1]	4.63%	3,550,088 [13]
9	Total	100.00%	\$76,758,666 [3]		6.95%	\$5,330,889 [14]

[1] Per Public Staff Financial Analyst Hilton.

[2] Column (a) multiplied by Line 3, Column (b).

[3] Public Staff WSIP Exhibit 1, Schedule 2(a), Column (c), Line 18.

[4] Column (a) multiplied by Line 6, Column (b).

[5] Column (a) multiplied by Line 9, Column (b).

[6] Column (e) divided by Column (b).

[7] Column (a) multiplied by Column (c).

[8] Column (b) multiplied by Column (c).

[9] Line 3 minus Line 1, Column (e).

[10] Public Staff WSIP Exhibit 1, Sch 3(a)(1), Column (c), Line 37.

[11] Line 6 minus Line 4, Column (e).

[12] Public Staff WSIP Exhibit 1, Sch 3(a)(1), Column (e), Line 37.

[13] Line 9 minus Line 7, Column (e).

[14] Public Staff WSIP Exhibit 1, Sch 3(a), Column (g)(1), Line 37.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
RETURN ON ORIGINAL COST RATE BASE
For The Rate Year 1 Ended March 31, 2024

Public Staff WSIP Exhibit 1
Schedule 1(b)(1)

CWSNC SEWER OPERATIONS

Line No.	Item	<u>Rate Year 1</u>					
		Capitalization Ratio [1]	Original Cost Rate Base [1]	Embedded Cost [1]	Overall Cost Rate [7]	Net Operating Income [7]	
		(a)	(b)	(c)	(d)	(e)	
<u>Present Rates:</u>							
1	Debt	50.00%	\$39,078,406 [2]	4.64% [1]	2.32%	\$1,813,238 [8]	
2	Equity	50.00%	39,078,405 [2]	7.51% [6]	3.76%	2,936,624 [9]	
3	Total	100.00%	<u>\$78,156,811 [3]</u>		<u>6.08%</u>	<u>\$4,749,862 [10]</u>	
<u>Company Proposed Rates:</u>							
4	Debt	50.00%	\$39,078,406 [4]	4.64% [1]	2.32%	\$1,813,238 [8]	
5	Equity	50.00%	39,078,405 [4]	11.74% [6]	5.87%	4,586,314 [11]	
6	Total	100.00%	<u>\$78,156,811 [3]</u>		<u>8.19%</u>	<u>\$6,399,552 [12]</u>	
<u>Public Staff Recommended Rates:</u>							
7	Debt	50.00%	\$39,078,406 [5]	4.64% [1]	2.32%	\$1,813,238 [8]	
8	Equity	50.00%	39,078,405 [5]	9.25% [1]	4.63%	3,614,752 [13]	
9	Total	100.00%	<u>\$78,156,811 [3]</u>		<u>6.95%</u>	<u>\$5,427,990 [14]</u>	

[1] Per Public Staff Financial Analyst Hilton.

[2] Column (a) multiplied by Line 3, Column (b).

[3] Public Staff WSIP Exhibit 1, Schedule 2(b), Column (c), Line 18.

[4] Column (a) multiplied by Line 6, Column (b).

[5] Column (a) multiplied by Line 9, Column (b).

[6] Column (e) divided by Column (b).

[7] Column (a) multiplied by Column (c).

[8] Column (b) multiplied by Column (c).

[9] Line 3 minus Line 1, Column (e).

[10] Public Staff WSIP Exhibit 1, Sch3(b)(1), Column (c), Line 37.

[11] Line 6 minus Line 4, Column (e).

[12] Public Staff WSIP Exhibit 1, Sch 3(b)(1), Column (e), Line 37.

[13] Line 9 minus Line 7, Column (e).

[14] Public Staff WSIP Exhibit 1, Sch 3(b)(1), Column (g), Line 37.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
RETURN ON ORIGINAL COST RATE BASE
For The Rate Year 1 Ended March 31, 2024

Public Staff WSIP Exhibit 1
Schedule 1(c)(1)

BF/FH/TC WATER OPERATIONS

Line No.	Item	Rate Year 1					
		Capitalization Ratio [1]	Original Cost Rate Base [1]	Embedded Cost [1]	Overall Cost Rate [7]	Net Operating Income [7]	
		(a)	(b)	(c)	(d)	(e)	
<u>Present Rates:</u>							
1	Debt	50.00%	\$2,864,812 [2]	4.64% [1]	2.32%	\$132,927 [8]	
2	Equity	50.00%	2,864,813 [2]	5.34% [6]	2.67%	153,097 [9]	
3	Total	100.00%	\$5,729,625 [3]		4.99%	\$286,024 [10]	
<u>Company Proposed Rates:</u>							
4	Debt	50.00%	\$2,864,812 [4]	4.64% [1]	2.32%	\$132,927 [8]	
5	Equity	50.00%	2,864,813 [4]	15.73% [6]	7.87%	450,501 [11]	
6	Total	100.00%	\$5,729,625 [3]		10.19%	\$583,428 [12]	
<u>Public Staff Recommended Rates:</u>							
7	Debt	50.00%	\$2,864,812 [5]	4.64% [1]	2.32%	\$132,927 [8]	
8	Equity	50.00%	2,864,813 [5]	9.25% [1]	4.63%	264,995 [13]	
9	Total	100.00%	\$5,729,625 [3]		6.95%	\$397,922 [14]	

[1] Per Public Staff Financial Analyst Hilton.

[2] Column (a) multiplied by Line 3, Column (b).

[3] Public Staff WSIP Exhibit 1, Schedule 2(c), Column (c), Line 18.

[4] Column (a) multiplied by Line 6, Column (b).

[5] Column (a) multiplied by Line 9, Column (b).

[6] Column (e) divided by Column (b).

[7] Column (a) multiplied by Column (c).

[8] Column (b) multiplied by Column (c).

[9] Line 3 minus Line 1, Column (e).

[10] Public Staff WSIP Exhibit 1, Sch 3(c)(1), Column (c), Line 37.

[11] Line 6 minus Line 4, Column (e).

[12] Public Staff WSIP Exhibit 1, Sch 3(c)(1), Column (e), Line 37.

[13] Line 9 minus Line 7, Column (e).

[14] Public Staff WSIP Exhibit 1, Sch 3(c)(1), Column (g), Line 37.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
RETURN ON ORIGINAL COST RATE BASE
For The Rate Year 1 Ended March 31, 2024

Public Staff WSIP Exhibit 1
Schedule 1(d)(1)

BF/FH SEWER OPERATIONS

Line No.	Item	<u>Rate Year 1</u>				
		Capitalization Ratio [1]	Original Cost Rate Base	Embedded Cost	Overall Cost Rate [7]	Net Operating Income
		(a)	(b)	(c)	(d)	(e)
<u>Present Rates:</u>						
1	Debt	50.00%	\$5,298,868 [2]	4.64% [1]	2.32%	\$245,867 [8]
2	Equity	50.00%	5,298,868 [2]	12.53% [6]	6.27%	663,747 [9]
3	Total	100.00%	<u>\$10,597,736 [3]</u>		<u>8.59%</u>	<u>\$909,614 [10]</u>
<u>Company Proposed Rates:</u>						
4	Debt	50.00%	\$5,298,868 [4]	4.64% [1]	2.32%	\$245,867 [8]
5	Equity	50.00%	5,298,868 [4]	14.36% [6]	7.18%	761,118 [11]
6	Total	100.00%	<u>\$10,597,736 [3]</u>		<u>9.50%</u>	<u>\$1,006,985 [12]</u>
<u>Public Staff Recommended Rates:</u>						
7	Debt	50.00%	\$5,298,868 [5]	4.64% [1]	2.32%	\$245,867 [8]
8	Equity	50.00%	5,298,868 [5]	9.25% [1]	4.63%	490,145 [13]
9	Total	100.00%	<u>\$10,597,736 [3]</u>		<u>6.95%</u>	<u>\$736,012 [14]</u>

[1] Per Public Staff Financial Analyst Hilton.

[2] Column (a) multiplied by Line 3, Column (b).

[3] Public Staff WSIP Exhibit 1, Schedule 2(d), Column (c), Line 18.

[4] Column (a) multiplied by Line 6, Column (b).

[5] Column (a) multiplied by Line 9, Column (b).

[6] Column (e) divided by Column (b).

[7] Column (a) multiplied by Column (c).

[8] Column (b) multiplied by Column (c).

[9] Line 3 minus Line 1, Column (e).

[10] Public Staff WSIP Exhibit 1, Sch 3(d)(1), Column (c), Line 37.

[11] Line 6 minus Line 4, Column (e).

[12] Public Staff WSIP Exhibit 1, Sch 3(d)(1), Column (e), Line 37.

[13] Line 9 minus Line 7, Column (e).

[14] Public Staff WSIP Exhibit 1, Sch 3(d)(1), Column (g), Line 37.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
RETURN ON ORIGINAL COST RATE BASE
For The Rate Year 2 Ended March 31, 2025

Public Staff WSIP Exhibit 1
Schedule 1(a)(2)

CWSNC WATER OPERATIONS

Line No.	Item	Rate Year 2				
		Capitalization Ratio [1]	Original Cost Rate Base (b)	Embedded Cost (c)	Overall Cost Rate [7]	Net Operating Income (e)
	<u>Present Rates:</u>					
1	Debt	50.00%	\$40,705,786 [2]	4.64% [1]	2.32%	\$1,888,748 [8]
2	Equity	50.00%	40,705,786 [2]	11.32% [6]	5.66%	4,608,634 [9]
3	Total	<u>100.00%</u>	<u>\$81,411,572 [3]</u>		<u>7.98%</u>	<u>\$6,497,382 [10]</u>
	<u>Company Proposed Rates:</u>					
4	Debt	50.00%	\$40,705,786 [4]	4.64% [1]	2.32%	\$1,888,748 [8]
5	Equity	50.00%	40,705,786 [4]	13.46% [6]	6.73%	5,479,388 [11]
6	Total	<u>100.00%</u>	<u>\$81,411,572 [3]</u>		<u>9.05%</u>	<u>\$7,368,136 [12]</u>
	<u>Public Staff Recommended Rates:</u>					
7	Debt	50.00%	\$40,705,786 [5]	4.64% [1]	2.32%	\$1,888,748 [8]
8	Equity	50.00%	40,705,786 [5]	9.25% [1]	4.63%	3,765,285 [13]
9	Total	<u>100.00%</u>	<u>\$81,411,572 [3]</u>		<u>6.95%</u>	<u>\$5,654,033 [14]</u>

[1] Per Public Staff Financial Analyst Hilton.

[2] Column (a) multiplied by Line 3, Column (b).

[3] Public Staff WSIP Exhibit 1, Schedule 2(a), Column (f), Line 18.

[4] Column (a) multiplied by Line 6, Column (b).

[5] Column (a) multiplied by Line 9, Column (b).

[6] Column (e) divided by Column (b).

[7] Column (a) multiplied by Column (c).

[8] Column (b) multiplied by Column (c).

[9] Line 3 minus Line 1, Column (e).

[10] Public Staff WSIP Exhibit 1, Schedule 3(a)(2), Column (c), Line 37.

[11] Line 6 minus Line 4, Column (e).

[12] Public Staff WSIP Exhibit 1, Schedule 3(a)(2), Column (e), Line 37

[13] Line 9 minus Line 7, Column (e).

[14] Public Staff WSIP Exhibit 1, Schedule 3(a)(2), Column (g), Line 37

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
RETURN ON ORIGINAL COST RATE BASE
For The Rate Year 2 Ended March 31, 2025

Public Staff WSIP Exhibit 1
Schedule 1(b)(2)

CWSNC SEWER OPERATIONS

Line No.	Item	Rate Year 2				
		Capitalization Ratio [1]	Original Cost Rate Base (b)	Embedded Cost (c)	Overall Cost Rate [7]	Net Operating Income (e)
		(a)			(d)	
	<u>Present Rates:</u>					
1	Debt	50.00%	\$39,892,333 [2]	4.64% [1]	2.32%	\$1,851,004 [8]
2	Equity	50.00%	39,892,334 [2]	10.80% [6]	5.40%	4,307,345 [9]
3	Total	<u>100.00%</u>	<u>\$79,784,667</u> [3]		<u>7.72%</u>	<u>\$6,158,349</u> [10]
	<u>Company Proposed Rates:</u>					
4	Debt	50.00%	\$39,892,333 [4]	4.64% [1]	2.32%	\$1,851,004 [8]
5	Equity	50.00%	39,892,334 [4]	13.20% [6]	6.60%	5,264,648 [11]
6	Total	<u>100.00%</u>	<u>\$79,784,667</u> [3]		<u>8.92%</u>	<u>\$7,115,652</u> [12]
	<u>Public Staff Recommended Rates:</u>					
7	Debt	50.00%	\$39,892,333 [5]	4.64% [1]	2.32%	\$1,851,004 [8]
8	Equity	50.00%	39,892,334 [5]	9.25% [1]	4.63%	3,690,041 [13]
9	Total	<u>100.00%</u>	<u>\$79,784,667</u> [3]		<u>6.95%</u>	<u>\$5,541,045</u> [14]

[1] Per Public Staff Financial Analyst Hilton.

[2] Column (a) multiplied by Line 3, Column (b).

[3] Public Staff WSIP Exhibit 1, Schedule 2(b), Column (f), Line 18.

[4] Column (a) multiplied by Line 6, Column (b).

[5] Column (a) multiplied by Line 9, Column (b).

[6] Column (e) divided by Column (b).

[7] Column (a) multiplied by Column (c).

[8] Column (b) multiplied by Column (c).

[9] Line 3 minus Line 1, Column (e).

[10] Public Staff WSIP Exhibit 1, Schedule 3(b)(2), Column (c), Line 37.

[11] Line 6 minus Line 4, Column (e).

[12] Public Staff WSIP Exhibit 1, Schedule 3(b)(2), Column (e), Line 37

[13] Line 9 minus Line 7, Column (e).

[14] Public Staff WSIP Exhibit 1, Schedule 3(b)(2), Column (g), Line 37

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
RETURN ON ORIGINAL COST RATE BASE
For The Rate Year 2 Ended March 31, 2025

Public Staff WSIP Exhibit 1
Schedule 1(c)(2)

BF/FH/TC WATER OPERATIONS

Line No.	Item	Rate Year 2				
		Capitalization Ratio [1]	Original Cost Rate Base (b)	Embedded Cost (c)	Overall Cost Rate [7]	Net Operating Income (e)
		(a)			(d)	
	<u>Present Rates:</u>					
1	Debt	50.00%	\$3,160,442 [2]	4.64% [1]	2.32%	\$146,645 [8]
2	Equity	50.00%	3,160,442 [2]	12.24% [6]	6.12%	386,955 [9]
3	Total	<u>100.00%</u>	<u>\$6,320,884 [3]</u>		<u>8.44%</u>	<u>\$533,600 [10]</u>
	<u>Company Proposed Rates:</u>					
4	Debt	50.00%	\$3,160,442 [4]	4.64% [1]	2.32%	\$146,645 [8]
5	Equity	50.00%	3,160,442 [4]	15.83% [6]	7.92%	500,234 [11]
6	Total	<u>100.00%</u>	<u>\$6,320,884 [3]</u>		<u>10.24%</u>	<u>\$646,879 [12]</u>
	<u>Public Staff Recommended Rates:</u>					
7	Debt	50.00%	\$3,160,442 [5]	4.64% [1]	2.32%	\$146,645 [8]
8	Equity	50.00%	3,160,442 [5]	9.25% [1]	4.63%	292,341 [13]
9	Total	<u>100.00%</u>	<u>\$6,320,884 [3]</u>		<u>6.95%</u>	<u>\$438,986 [14]</u>

[1] Per Public Staff Financial Analyst Hilton.

[2] Column (a) multiplied by Line 3, Column (b).

[3] Public Staff WSIP Exhibit 1, Schedule 2(c), Column (f), Line 18.

[4] Column (a) multiplied by Line 6, Column (b).

[5] Column (a) multiplied by Line 9, Column (b).

[6] Column (e) divided by Column (b).

[7] Column (a) multiplied by Column (c).

[8] Column (b) multiplied by Column (c).

[9] Line 3 minus Line 1, Column (e).

[10] Public Staff WSIP Exhibit 1, Schedule 3(c)(2), Column (c), Line 37

[11] Line 6 minus Line 4, Column (e).

[12] Public Staff WSIP Exhibit 1, Schedule 3(c)(2), Column (e), Line 37

[13] Line 9 minus Line 7, Column (e).

[14] Public Staff WSIP Exhibit 1, Schedule 3(c)(2), Column (g), Line 37

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
RETURN ON ORIGINAL COST RATE BASE
For The Rate Year 2 Ended March 31, 2025

Public Staff WSIP Exhibit 1
Schedule 1(d)(2)

BF/FH SEWER OPERATIONS

Line No.	Item	Rate Year 2				
		Capitalization Ratio [1]	Original Cost Rate Base (b)	Embedded Cost (c)	Overall Cost Rate [7]	Net Operating Income (e)
		(a)			(d)	
	<u>Present Rates:</u>					
1	Debt	50.00%	\$7,847,522 [2]	4.64% [1]	2.32%	\$364,125 [8]
2	Equity	50.00%	7,847,522 [2]	6.71% [6]	3.36%	526,353 [9]
3	Total	100.00%	\$15,695,044 [3]		5.68%	\$890,478 [10]
	<u>Company Proposed Rates:</u>					
4	Debt	50.00%	\$7,847,522 [4]	4.64% [1]	2.32%	\$364,125 [8]
5	Equity	50.00%	7,847,522 [4]	9.19% [6]	4.60%	721,114 [11]
6	Total	100.00%	\$15,695,044 [3]		6.92%	\$1,085,239 [12]
	<u>Public Staff Recommended Rates:</u>					
7	Debt	50.00%	\$7,847,522 [5]	4.64% [1]	2.32%	\$364,125 [8]
8	Equity	50.00%	7,847,522 [5]	9.25% [1]	4.63%	725,896 [13]
9	Total	100.00%	\$15,695,044 [3]		6.95%	\$1,090,021 [14]

[1] Per Public Staff Financial Analyst Hilton.

[2] Column (a) multiplied by Line 3, Column (b).

[3] Public Staff WSIP Exhibit 1, Schedule 2(d), Column (f), Line 18.

[4] Column (a) multiplied by Line 6, Column (b).

[5] Column (a) multiplied by Line 9, Column (b).

[6] Column (e) divided by Column (b).

[7] Column (a) multiplied by Column (c).

[8] Column (b) multiplied by Column (c).

[9] Line 3 minus Line 1, Column (e).

[10] Public Staff WSIP Exhibit 1, Schedule 3(d)(2), Column (c), Line 37.

[11] Line 6 minus Line 4, Column (e).

[12] Public Staff WSIP Exhibit 1, Schedule 3(d)(2), Column (e), Line 37

[13] Line 9 minus Line 7, Column (e).

[14] Public Staff WSIP Exhibit 1, Schedule 3(d)(2), Column (g), Line 37

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
RETURN ON ORIGINAL COST RATE BASE
For The Rate Year 3 Ended March 31, 2026

Public Staff WSIP Exhibit 1
Schedule 1(a)(3)

CWSNC WATER OPERATIONS

Line No.	Item	Rate Year 3				
		Capitalization Ratio [1]	Original Cost Rate Base (b)	Embedded Cost (c)	Overall Cost Rate [7]	Net Operating Income (e)
		(a)			(d)	
	<u>Present Rates:</u>					
1	Debt	50.00%	\$40,602,698 [2]	4.64% [1]	2.32%	\$1,883,965 [8]
2	Equity	50.00%	40,602,698 [2]	12.91% [6]	6.46%	5,242,218 [9]
3	Total	<u>100.00%</u>	<u>\$81,205,396 [3]</u>		<u>8.78%</u>	<u>\$7,126,183 [10]</u>
	<u>Company Proposed Rates:</u>					
4	Debt	50.00%	\$40,602,698 [4]	4.64% [1]	2.32%	\$1,883,965 [8]
5	Equity	50.00%	40,602,698 [4]	15.07% [6]	7.54%	6,116,803 [11]
6	Total	<u>100.00%</u>	<u>\$81,205,396 [3]</u>		<u>9.86%</u>	<u>\$8,000,768 [12]</u>
	<u>Public Staff Recommended Rates:</u>					
7	Debt	50.00%	\$40,602,698 [5]	4.64% [1]	2.32%	\$1,883,965 [8]
8	Equity	50.00%	40,602,698 [5]	9.25% [1]	4.63%	3,755,750 [13]
9	Total	<u>100.00%</u>	<u>\$81,205,396 [3]</u>		<u>6.95%</u>	<u>\$5,639,715 [14]</u>

[1] Per Public Staff Financial Analyst Hilton.

[2] Column (a) multiplied by Line 3, Column (b).

[3] Public Staff WSIP Exhibit 1, Schedule 2(a), Column (i), Line 18.

[4] Column (a) multiplied by Line 6, Column (b).

[5] Column (a) multiplied by Line 9, Column (b).

[6] Column (e) divided by Column (b).

[7] Column (a) multiplied by Column (c).

[8] Column (b) multiplied Column (c).

[9] Line 3 minus Line 1, Column (e).

[10] Public Staff WSIP Exhibit 1, Schedule 3(a)(3), Column (c), Line 37.

[11] Line 6 minus Line 4, Column (e).

[12] Public Staff WSIP Exhibit 1, Schedule 3(a)(3), Column (e), Line 37

[13] Line 9 minus Line 7, Column (e).

[14] Public Staff WSIP Exhibit 1, Schedule 3(a)(3), Column (g), Line 37

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
RETURN ON ORIGINAL COST RATE BASE
For The Rate Year 3 Ended March 31, 2026

Public Staff WSIP Exhibit 1
Schedule 1(b)(3)

CWSNC SEWER OPERATIONS

Line No.	Item	<u>Rate Year 3</u>				
		Capitalization Ratio [1]	Original Cost Rate Base (b)	Embedded Cost (c)	Overall Cost Rate [7]	Net Operating Income (e)
		(a)			(d)	
	<u>Present Rates:</u>					
1	Debt	50.00%	\$46,401,380 [2]	4.64% [1]	2.32%	\$2,153,024 [8]
2	Equity	50.00%	46,401,381 [2]	9.74% [6]	4.87%	4,521,763 [9]
3	Total	100.00%	\$92,802,761 [3]		7.19%	\$6,674,787 [10]
	<u>Company Proposed Rates:</u>					
4	Debt	50.00%	\$46,401,380 [4]	4.64% [1]	2.32%	\$2,153,024 [8]
5	Equity	50.00%	46,401,381 [4]	11.98% [6]	5.99%	5,557,757 [11]
6	Total	100.00%	\$92,802,761 [3]		8.31%	\$7,710,781 [12]
	<u>Public Staff Recommended Rates:</u>					
7	Debt	50.00%	\$46,401,380 [5]	4.64% [1]	2.32%	\$2,153,024 [8]
8	Equity	50.00%	46,401,381 [5]	9.25% [1]	4.63%	4,292,128 [13]
9	Total	100.00%	\$92,802,761 [3]		6.95%	\$6,445,152 [14]

[1] Per Public Staff Financial Analyst Hilton.

[2] Column (a) multiplied by Line 3, Column (b).

[3] Public Staff WSIP Exhibit 1, Schedule 2(b), Column (i), Line 18.

[4] Column (a) multiplied by Line 6, Column (b).

[5] Column (a) multiplied by Line 9, Column (b).

[6] Column (e) divided by Column (b).

[7] Column (a) multiplied by Column (c).

[8] Column (b) multiplied Column (c).

[9] Line 3 minus Line 1, Column (e).

[10] Public Staff WSIP Exhibit 1, Schedule 3(b)(3), Column (c), Line 37.

[11] Line 6 minus Line 4, Column (e).

[12] Public Staff WSIP Exhibit 1, Schedule 3(b)(3), Column (e), Line 37

[13] Line 9 minus Line 7, Column (e).

[14] Public Staff WSIP Exhibit 1, Schedule 3(b)(3), Column (g), Line 37

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
RETURN ON ORIGINAL COST RATE BASE
For The Rate Year 3 Ended March 31, 2026

Public Staff WSIP Exhibit 1
Schedule 1(c)(3)

BF/FH/TC WATER OPERATIONS

Line No.	Item	<u>Rate Year 3</u>				
		Capitalization Ratio [1]	Original Cost Rate Base (b)	Embedded Cost (c)	Overall Cost Rate [7]	Net Operating Income (e)
		(a)			(d)	
	<u>Present Rates:</u>					
1	Debt	50.00%	\$3,179,249 [2]	4.64% [1]	2.32%	\$147,517 [8]
2	Equity	50.00%	3,179,249 [2]	14.59% [6]	7.30%	463,700 [9]
3	Total	100.00%	\$6,358,498 [3]		9.62%	\$611,217 [10]
	<u>Company Proposed Rates:</u>					
4	Debt	50.00%	\$3,179,249 [4]	4.64% [1]	2.32%	\$147,517 [8]
5	Equity	50.00%	3,179,249 [4]	17.24% [6]	8.62%	548,097 [11]
6	Total	100.00%	\$6,358,498 [3]		10.94%	\$695,614 [12]
	<u>Public Staff Recommended Rates:</u>					
7	Debt	50.00%	\$3,179,249 [5]	4.64% [1]	2.32%	\$147,517 [8]
8	Equity	50.00%	3,179,249 [5]	9.25% [1]	4.63%	294,081 [13]
9	Total	100.00%	\$6,358,498 [3]		6.95%	\$441,598 [14]

[1] Per Public Staff Financial Analyst Hilton.

[2] Column (a) multiplied by Line 3, Column (b).

[3] Public Staff WSIP Exhibit 1, Schedule 2(c), Column (i), Line 18.

[4] Column (a) multiplied by Line 6, Column (b).

[5] Column (a) multiplied by Line 9, Column (b).

[6] Column (e) divided by Column (b).

[7] Column (a) multiplied by Column (c).

[8] Column (b) multiplied Column (c).

[9] Line 3 minus Line 1, Column (e).

[10] Public Staff WSIP Exhibit 1, Schedule 3(c)(3), Column (c), Line 37

[11] Line 6 minus Line 4, Column (e).

[12] Public Staff WSIP Exhibit 1, Schedule 3(c)(3), Column (e), Line 37

[13] Line 9 minus Line 7, Column (e).

[14] Public Staff WSIP Exhibit 1, Schedule 3(c)(3), Column (g), Line 37

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
RETURN ON ORIGINAL COST RATE BASE
For The Rate Year 3 Ended March 31, 2026

Public Staff WSIP Exhibit 1
Schedule 1(d)(3)

BF/FH SEWER OPERATIONS

Line No.	Item	<u>Rate Year 3</u>				
		Capitalization Ratio [1]	Original Cost Rate Base (b)	Embedded Cost (c)	Overall Cost Rate [7]	Net Operating Income (e)
		(a)			(d)	
	<u>Present Rates:</u>					
1	Debt	50.00%	\$7,875,340 [2]	4.64% [1]	2.32%	\$365,416 [8]
2	Equity	50.00%	7,875,341 [2]	8.64% [6]	4.32%	680,271 [9]
3	Total	100.00%	\$15,750,681 [3]		6.64%	\$1,045,687 [10]
	<u>Company Proposed Rates:</u>					
4	Debt	50.00%	\$7,875,340 [4]	4.64% [1]	2.32%	\$365,416 [8]
5	Equity	50.00%	7,875,341 [4]	10.01% [6]	5.01%	787,976 [11]
6	Total	100.00%	\$15,750,681 [3]		7.33%	\$1,153,392 [12]
	<u>Public Staff Recommended Rates:</u>					
7	Debt	50.00%	\$7,875,340 [5]	4.64% [1]	2.32%	\$365,416 [8]
8	Equity	50.00%	7,875,341 [5]	9.25% [1]	4.63%	728,469 [13]
9	Total	100.00%	\$15,750,681 [3]		6.95%	\$1,093,885 [14]

[1] Per Public Staff Financial Analyst Hilton.

[2] Column (a) multiplied by Line 3, Column (b).

[3] Public Staff WSIP Exhibit 1, Schedule 2(d), Column (i), Line 18.

[4] Column (a) multiplied by Line 6, Column (b).

[5] Column (a) multiplied by Line 9, Column (b).

[6] Column (e) divided by Column (b).

[7] Column (a) multiplied by Column (c).

[8] Column (b) multiplied Column (c).

[9] Line 3 minus Line 1, Column (e).

[10] Public Staff WSIP Exhibit 1, Schedule 3(d)(3), Column (c), Line 37.

[11] Line 6 minus Line 4, Column (e).

[12] Public Staff WSIP Exhibit 1, Schedule 3(d)(3), Column (e), Line 37

[13] Line 9 minus Line 7, Column (e).

[14] Public Staff WSIP Exhibit 1, Schedule 3(d)(3), Column (g), Line 37

CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 400

ORIGINAL COST RATE BASE

For The Test Year Ended March 31, 2022

Public Staff WSIP Exhibit 1

Schedule 2(a)

CWSNC WATER OPERATIONS

Line No.	Item	Amount Per	<u>Base Year</u>	Amount Per
		Updates	Public Staff Adjustments [1]	Public Staff [2]
		(a)	(b)	(c)
1	Plant in service	\$130,462,447	(\$1,117,751)	\$ 129,344,696 [3]
2	Accumulated depreciation	(36,715,615)	343,704	(36,371,911) [4]
3	Net plant in service (L1 + L2)	93,746,832	(774,047)	92,972,786
4	Cash working capital	1,596,378	(77,978)	1,518,400 [5]
5	Contributions in aid of construction	(16,524,392)	(36,031)	(16,560,422) [6]
6	Advances in aid of construction	(20,631)	0	(20,631) [9]
7	Accumulated deferred income taxes	(2,667,340)	(81,295)	(2,748,634) [7]
8	Customer deposits	(208,631)	0	(208,631) [8]
9	Inventory	91,908	0	91,908 [9]
10	Gain on sale and flow back taxes	(196,947)	0	(196,947) [10]
11	Plant acquisition adjustment	(1,784,523)	61,588	(1,722,935) [11]
12	Excess book value	0	0	0
13	Cost-free capital	(121,791)	0	(121,791)
14	Average tax accruals	74,463	(148,688)	(74,225) [12]
15	Regulatory liability for excess deferred taxes	(2,667,246)	0	(2,667,246)
16	Deferred charges	1,059,646	(71,323)	988,322 [13]
17	Pro forma plant	0	0	0 [14]
18	Original cost rate base (Sum of L3 thru L17)	\$72,377,726	(\$1,127,773)	\$71,249,953

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

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

[3] Public Staff WSIP Exhibit 1, Schedule 2-1(a), Column (c), Line 2.

[4] Public Staff WSIP Exhibit 1, Schedule 2-1(a), Column (c), Line 4.

[5] Public Staff WSIP Exhibit 1, Schedule 2-3, Column (a), Line 4.

[6] Public Staff WSIP Exhibit 1, Schedule 2-4, Column (c), Line 81

[7] Public Staff WSIP Exhibit 1, Schedule 2-5(a), Column (d), Line 27.

[8] Public Staff WSIP Exhibit 1, Schedule 2-6, Column (a), Line 3.

[9] Calculated based on Company's response to data request.

[10] Public Staff WSIP Exhibit 1, Schedule 2-7, Column (a), Line 6.

[11] Public Staff WSIP Exhibit 1, Schedule 2-8, Column (c), Line 7.

[12] Public Staff WSIP Exhibit 1, Schedule 2-3, Column (a), Line 9.

[13] Public Staff WSIP Exhibit 1, Schedule 2-9, Column (a), Line 3.

[14] To remove estimated plant cost in the future.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ORIGINAL COST RATE BASE
For The Test Year Ended March 31, 2022

Public Staff WSIP Exhibit 1
Schedule 2(b)

CWSNC SEWER OPERATIONS

Line No.	Item	Amount Per	<u>Base Year</u>	Amount Per
		Updates	Public Staff Adjustments [1]	Public Staff [2]
		(a)	(b)	(c)
1	Plant in service	\$116,603,269	(\$1,177,192)	\$ 115,426,078 [3]
2	Accumulated depreciation	(29,683,192)	292,468	(29,390,724) [4]
3	Net plant in service (L1 + L2)	86,920,077	(884,724)	86,035,354
4	Cash working capital	1,138,522	(22,551)	1,115,971 [5]
5	Contributions in aid of construction	(16,400,002)	(55,813)	(16,455,816) [6]
6	Advances in aid of construction	(12,309)	0	(12,309) [9]
7	Accumulated deferred income taxes	(3,065,187)	(47,082)	(3,112,268) [7]
8	Customer deposits	(124,471)	0	(124,471) [8]
9	Inventory	54,833	0	54,833 [9]
10	Gain on sale and flow back taxes	(92,681)	0	(92,681) [10]
11	Plant acquisition adjustment	396,418	(3,298)	393,121 [11]
12	Excess book value	0	0	0
13	Cost-free capital	(139,708)	0	(139,708)
14	Average tax accruals	57,936	(115,523)	(57,587) [12]
15	Regulatory liability for excess deferred taxes	(1,591,295)	0	(1,591,295)
16	Deferred charges	941,229	(50,035)	891,194 [13]
17	Pro forma plant		0	0 [14]
18	Original cost rate base (Sum of L3 thru L17)	\$68,083,364	(\$1,179,027)	\$66,904,338

- [1] Column (c) minus Column (a).
[2] Column (a) plus Column (b), unless otherwise footnoted.
[3] Public Staff WSIP Exhibit 1, Schedule 2-1(b), Column (c), Line 2.
[4] Public Staff WSIP Exhibit 1, Schedule 2-1(b), Column (c), Line 4.
[5] Public Staff WSIP Exhibit 1, Schedule 2-3, Column (b), Line 4.
[6] Public Staff WSIP Exhibit 1, Schedule 2-4, Column (f), Line 8.
[7] Public Staff WSIP Exhibit 1, Schedule 2-5(a), Column (e), Line 27.
[8] Public Staff WSIP Exhibit 1, Schedule 2-6, Column (b), Line 3.
[9] Calculated based on Company's response to data request.
[10] Public Staff WSIP Exhibit 1, Schedule 2-7, Column (b), Line 6.
[11] Public Staff WSIP Exhibit 1, Schedule 2-8, Column (f), Line 7.
[12] Public Staff WSIP Exhibit 1, Schedule 2-3, Column (b), Line 9.
[13] Public Staff WSIP Exhibit 1, Schedule 2-9, Column (b), Line 3.
[14] To remove estimated plant cost in the future.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ORIGINAL COST RATE BASE
For The Test Year Ended March 31, 2022

Public Staff WSIP Exhibit 1
Schedule 2(c)

BF/FH/TC WATER OPERATIONS

Line No.	Item	Amount Per	<u>Base Year</u>	Amount Per
		Updates	Public Staff Adjustments [1]	Public Staff [2]
		(a)	(b)	(c)
1	Plant in service	\$7,360,146	(\$19,729)	\$7,340,417 [3]
2	Accumulated depreciation	(2,519,662)	20,982	(2,498,680) [4]
3	Net plant in service (L1 + L2)	4,840,485	1,253	4,841,737
4	Cash working capital	191,559	(3,216)	188,343 [5]
5	Contributions in aid of construction	(1,093,905)	11,942	(1,081,963) [6]
6	Advances in aid of construction	0	0	0
7	Accumulated deferred income taxes	(19,782)	(9,611)	(29,393) [7]
8	Customer deposits	(18,525)	0	(18,525) [8]
9	Inventory	3,355	0	3,355
10	Gain on sale and flow back taxes	0	0	0
11	Plant acquisition adjustment	(21,646)	(7,647)	(29,293) [9]
12	Excess book value	0	0	0
13	Cost-free capital	0	0	0
14	Average tax accruals	4,415	(8,806)	(4,391) [10]
15	Regulatory liability for excess deferred taxes	(362,366)	0	(362,366)
16	Deferred charges	124,685	(8,103)	116,582 [11]
17	Pro forma plant		0	0 [12]
18	Original cost rate base (Sum of L3 thru L17)	\$3,648,275	(\$24,189)	\$3,624,086

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

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

[3] Public Staff WSIP Exhibit 1, Schedule 2-1(c), Column (c), Line 2.

[4] Public Staff WSIP Exhibit 1, Schedule 2-1(c), Column (c), Line 4.

[5] Public Staff WSIP Exhibit 1, Schedule 2-3, Column (c), Line 4.

[6] Public Staff WSIP Exhibit 1, Schedule 2-4, Column (i), Line 8.

[7] Public Staff WSIP Exhibit 1, Schedule 2-5(b), Column (f), Line 27.

[8] Public Staff WSIP Exhibit 1, Schedule 2-6, Column (c), Line 3.

[9] Public Staff WSIP Exhibit 1, Schedule 2-8, Column (i), Line 7.

[10] Public Staff WSIP Exhibit 1, Schedule 2-3, Column (c), Line 9.

[11] Public Staff WSIP Exhibit 1, Schedule 2-9, Column (c), Line 3.

[12] To remove estimated plant cost in the future.

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CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ORIGINAL COST RATE BASE
For The Test Year Ended March 31, 2022

Public Staff WSIP Exhibit 1
Schedule 2(d)

BF/FH SEWER OPERATIONS

Line No.	Item	Amount Per	<u>Base Year</u>		Amount Per
		Updates	Public Staff	Public Staff	Public Staff
		(a)	Adjustments [1]	(c)	[2]
1	Plant in service	\$16,528,468	(\$25,264)	\$16,503,204	[3]
2	Accumulated depreciation	(3,444,878)	67,025	(3,377,853)	[4]
3	Net plant in service (L1 + L2)	13,083,589	41,761	13,125,351	
4	Cash working capital	203,468	(13,016)	190,452	[5]
5	Contributions in aid of construction	(3,630,087)	(6,981)	(3,637,068)	[6]
6	Advances in aid of construction	0	0	0	
7	Accumulated deferred income taxes	(393,654)	31,545	(362,109)	[7]
8	Customer deposits	(18,963)	0	(18,963)	[8]
9	Inventory	3,434	0	3,434	
10	Gain on sale and flow back taxes	0	0	0	
11	Plant acquisition adjustment	851,982	(25,713)	826,270	[9]
12	Excess book value	0	0	0	
13	Cost-free capital	0	0	0	
14	Average tax accruals	5,647	(11,266)	(5,619)	[10]
15	Regulatory liability for excess deferred taxes	(370,918)	0	(370,918)	
16	Deferred charges	86,204	(7,278)	78,925	[11]
17	Pro forma plant		0	0	[12]
18	Original cost rate base (Sum of L3 thru L17)	\$9,820,703	\$9,052	\$9,829,756	

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

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

[3] Public Staff WSIP Exhibit 1, Schedule 2-1(d), Column (c), Line 2.

[4] Public Staff WSIP Exhibit 1, Schedule 2-1(d), Column (c), Line 4.

[5] Public Staff WSIP Exhibit 1, Schedule 2-3, Column (d), Line 4.

[6] Public Staff WSIP Exhibit 1, Schedule 2-4, Column (l), Line 8.

[7] Public Staff WSIP Exhibit 1, Schedule 2-5(b), Column (g), Line 27.

[8] Public Staff WSIP Exhibit 1, Schedule 2-6, Column (d), Line 3.

[9] Public Staff WSIP Exhibit 1, Schedule 2-8, Column (l), Line 7.

[10] Public Staff WSIP Exhibit 1, Schedule 2-3, Column (d), Line 9.

[11] Public Staff WSIP Exhibit 1, Schedule 2-9, Column (d), Line 3.

[12] To remove estimated plant cost in the future.

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Dec 05 2022

CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 400

ORIGINAL COST RATE BASEFor The Rate Year 1 - Rate Year 3 Ended
March 31, 2024 -2026

Public Staff WSIP Exhibit 1

Schedule 2(a)

CWSNC WATER OPERATIONS

Line No.	Item	Rate Year 1			Rate Year 2			Rate Year 3		
		Amount Per RY1 (a)	Public Staff Adjustments (b)	Amount Per Public Staff RY1 [2] (c)	Amount Per RY2 (d)	Public Staff Adjustments (e)	Amount Per Public Staff RY2 [2] (f)	Amount Per RY3 (g)	Public Staff Adjustments (h)	Amount Per Public Staff RY3 [2] (i)
1	Plant in service	\$139,911,295	(\$88,142)	\$ 139,823,153 [3]	\$149,145,207	\$ (1,091,048)	\$ 148,054,158 [3]	\$157,765,005	\$ (6,292,186)	\$ 151,472,819 [3]
2	Accumulated depreciation	(39,069,396)	(3,967,452)	(43,036,849) [4]	(40,736,813)	(6,834,537)	(47,571,350) [4]	(43,503,074)	(8,715,564)	(52,218,638) [4]
3	Net plant in service (L1 + L2)	100,841,899	(4,055,594)	96,786,305	108,408,394	(7,925,585)	100,482,809	114,261,931	(15,007,750)	99,254,181
4	Cash working capital	1,758,503	(195,836)	1,562,667 [5]	1,806,801	(181,720)	1,625,081 [5]	1,856,069	(207,132)	1,648,937 [5]
5	Contributions in aid of construction	(15,790,832)	391,879	(15,398,953) [6]	(15,057,272)	391,879	(14,665,393) [6]	(14,323,712)	391,879	(13,931,833) [6]
6	Advances in aid of construction	(20,631)	0	(20,631)	(20,631)	0	(20,631)	(20,631)	0	(20,631)
7	Accumulated deferred income taxes	(2,667,340)	108,301	(2,559,039) [7]	(2,667,340)	133,866	(2,533,474) [7]	(2,667,340)	378,388	(2,288,952) [7]
8	Customer deposits	(208,631)	0	(208,631)	(208,631)	0	(208,631)	(208,631)	0	(208,631)
9	Inventory	91,908	0	91,908	91,908	0	91,908	91,908	0	91,908
10	Gain on sale and flow back taxes	(196,947)	0	(196,947)	(196,947)	0	(196,947)	(196,947)	0	(196,947)
11	Plant acquisition adjustment	(1,667,165)	138,736	(1,528,429) [8]	(1,549,807)	142,957	(1,406,850) [8]	(1,432,449)	147,601	(1,284,848) [8]
12	Excess book value	0	0	0	0	0	0	0	0	0
13	Cost-free capital	(121,791)	0	(121,791)	(121,791)	0	(121,791)	(121,791)	0	(121,791)
14	Average tax accruals	79,889	(154,568)	(74,679) [9]	85,095	(160,378)	(75,283) [9]	89,922	(165,522)	(75,600) [9]
15	Regulatory liability for excess deferred taxes	(2,643,418)	0	(2,643,418)	(2,595,763)	0	(2,595,763)	(2,548,107)	0	(2,548,107)
16	Deferred charges	1,153,644	(83,340)	1,070,304 [10]	1,280,757	(244,220)	1,036,537 [10]	1,292,467	(404,756)	887,711 [10]
17	Pro forma plant	0	0	0 [11]	0	0	0 [11]	0	0	0 [11]
18	Original cost rate base (Sum of L3 thru L17)	\$80,609,087	(\$3,850,422)	\$76,758,666	\$89,254,773	(\$7,843,201)	\$81,411,572	\$96,072,690	(\$14,867,293)	\$81,205,396

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

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

[3] Public Staff WSIP Exhibit 1, Schedule 2-1(a), Column (c), Line 2.

[4] Public Staff WSIP Exhibit 1, Schedule 2-1(a), Column (c), Line 4.

[5] Public Staff WSIP Exhibit 1, Schedule 2-3(a), Column (a), Line 4.

[6] Public Staff WSIP Exhibit 1, Schedule 2-4(a), Column (c), Line 8.

[7] Public Staff WSIP Exhibit 1, Schedule 2-5(a), Column (d), Line 27.

[8] Public Staff WSIP Exhibit 1, Schedule 2-6(a), Column (c), Line 8.

[9] Public Staff WSIP Exhibit 1, Schedule 2-3(a), Column (a), Line 9.

[10] Public Staff WSIP Exhibit 1, Schedule 2-7(a), Column (a), Line 3.

[11] To remove estimated plant cost in the future.

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

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

[3] Public Staff WSIP Exhibit 1, Schedule 2-1(a), Column (f), Line 2.

[4] Public Staff WSIP Exhibit 1, Schedule 2-1(a), Column (f), Line 4.

[5] Public Staff WSIP Exhibit 1, Schedule 2-3(a), Column (b), Line 4.

[6] Public Staff WSIP Exhibit 1, Schedule 2-4(a), Column (f), Line 8.

[7] Public Staff WSIP Exhibit 1, Schedule 2-5(b), Column (d), Line 27.

[8] Public Staff WSIP Exhibit 1, Schedule 2-6(a), Column (f), Line 8.

[9] Public Staff WSIP Exhibit 1, Schedule 2-3(a), Column (b), Line 9.

[10] Public Staff WSIP Exhibit 1, Schedule 2-7(a), Column (b), Line 3.

[11] To remove estimated plant cost in the future.

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

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

[3] Public Staff WSIP Exhibit 1, Schedule 2-1(a), RY3, Column (c), Line 2.

[4] Public Staff WSIP Exhibit 1, Schedule 2-1(a), RY3, Column (c), Line 4.

[5] Public Staff WSIP Exhibit 1, Schedule 2-3(a), Column (c), Line 4.

[6] Public Staff WSIP Exhibit 1, Schedule 2-4(a), Column (i), Line 8.

[7] Public Staff WSIP Exhibit 1, Schedule 2-5(c), Column (d), Line 27.

[8] Public Staff WSIP Exhibit 1, Schedule 2-6(a), Column (i), Line 8.

[9] Public Staff WSIP Exhibit 1, Schedule 2-3(a), Column (c), Line 9.

[10] Public Staff WSIP Exhibit 1, Schedule 2-7(a), Column (c), Line 3.

[11] To remove estimated plant cost in the future.

CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 400

ORIGINAL COST RATE BASE

For The Rate Year 1 - Rate Year 3 Ended
March 31, 2024 -2026

Public Staff WSIP Exhibit 1

Schedule 2(b)

CWSNC SEWER OPERATIONS

Line No.	Item	Rate Year 1				Rate Year 2				Rate Year 3			
		Amount Per Updates (a)	Public Staff Adjustments (b)	[1]	Amount Per Public Staff (c) [2]	Amount Per Updates (d)	Public Staff Adjustments (e)	[1]	Amount Per Public Staff (f) [2]	Amount Per Updates (g)	Public Staff Adjustments (h)	[1]	Amount Per Public Staff (i) [2]
1	Plant in service	\$124,965,063	\$ 6,639,929		\$ 131,604,993 [3]	\$138,390,155	\$ (1,965,710)		\$ 136,424,446 [3]	\$151,288,445	\$ 2,201,265		\$ 153,489,710 [3]
2	Accumulated depreciation	(31,282,947)	(3,907,596)		(35,190,543) [4]	(31,927,240)	(7,198,636)		(39,125,877) [4]	(33,274,358)	(10,226,745)		(43,501,103) [4]
3	Net plant in service (L1 + L2)	93,682,116	2,732,334		96,414,450	106,462,915	(9,164,346)		97,298,569	118,014,087	(8,025,479)		109,988,608
4	Cash working capital	1,214,481	(94,376)		1,120,105 [5]	1,247,864	(104,543)		1,143,321 [5]	1,256,767	(86,349)		1,170,418 [5]
5	Contributions in aid of construction	(15,774,540)	309,040		(15,465,500) [6]	(15,149,078)	309,040		(14,840,038) [6]	(14,523,615)	309,040		(14,214,576) [6]
6	Advances in aid of construction	(12,309)	0		(12,309)	(12,309)	0		(12,309)	(12,309)	0		(12,309)
7	Accumulated deferred income taxes	(3,065,187)	(69,989)		(3,135,176) [7]	(3,065,187)	107,100		(2,958,087) [7]	(3,065,187)	(147,164)		(3,212,351) [7]
8	Customer deposits	(124,471)	0		(124,471)	(124,471)	0		(124,471)	(124,471)	0		(124,471)
9	Inventory	54,833	0		54,833	54,833	0		54,833	54,833	0		54,833
10	Gain on sale and flow back taxes	(92,681)	0		(92,681)	(92,681)	0		(92,681)	(92,681)	0		(92,681)
11	Plant acquisition adjustment	413,851	6,573		420,424 [8]	431,283	6,385		437,669 [8]	448,716	6,072		454,788 [8]
12	Excess book value	0	0		0	0	0		0	0	0		0
13	Cost-free capital	(139,708)	0		(139,708)	(139,708)	0		(139,708)	(139,708)	0		(139,708)
14	Average tax accruals	62,154	(120,218)		(58,064) [9]	68,723	(127,388)		(58,665) [9]	74,974	(133,987)		(59,013) [9]
15	Regulatory liability for excess deferred taxes	(1,577,079)	0		(1,577,079)	(1,548,647)	0		(1,548,647)	(1,520,216)	0		(1,520,216)
16	Deferred charges	903,107	(151,120)		751,987 [10]	829,995	(205,115)		624,881 [10]	768,766	(259,328)		509,438 [10]
17	Pro forma plant		0				0			0	0		
18	Original cost rate base (Sum of L3 thru L17)	\$75,544,568	\$2,612,244		\$78,156,811	\$88,963,534	(\$9,178,867)		\$79,784,667	\$101,139,957	(\$8,337,196)		\$92,802,761

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

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

[3] Public Staff WSIP Exhibit 1, Schedule 2-1(i)

[4] Public Staff WSIP Exhibit 1, Schedule 2-1(i)

[5] Public Staff WSIP Exhibit 1, Schedule 2-3(b), Column (a), Line 4.

[6] Public Staff WSIP Exhibit 1, Schedule 2-4(b), Column (c), Line 8.

[7] Public Staff WSIP Exhibit 1, Schedule 2-5(a), Column (e), Line 27.

[8] Public Staff WSIP Exhibit 1, Schedule 2-6(b), Column (c), Line 8.

[9] Public Staff WSIP Exhibit 1, Schedule 2-3(b), Column (a), Line 9.

[10] Public Staff WSIP Exhibit 1, Schedule 2-7(b), Column (a), Line 3.

[11] To remove estimated plant cost in the future.

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

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

[3] Public Staff WSIP Exhibit 1, Schedule 2-1(b), Column (f), Line 2.

[4] Public Staff WSIP Exhibit 1, Schedule 2-1(b), Column (f), Line 4.

[5] Public Staff WSIP Exhibit 1, Schedule 2-3(b), Column (b), Line 4.

[6] Public Staff WSIP Exhibit 1, Schedule 2-4(b), Column (f), Line 8.

[7] Public Staff WSIP Exhibit 1, Schedule 2-5(b), Column (e), Line 27.

[8] Public Staff WSIP Exhibit 1, Schedule 2-6(b), Column (f), Line 8.

[9] Public Staff WSIP Exhibit 1, Schedule 2-3(a), Column (b), Line 9.

[10] Public Staff WSIP Exhibit 1, Schedule 2-7(b), Column (b), Line 3.

[11] To remove estimated plant cost in the future.

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

[2] Column (a) plus C

[3] Public Staff WSIP Exhibit 1, Schedule 2-1(b), Column (i), Line 2.

[4] Public Staff WSIP Exhibit 1, Schedule 2-1(b), Column (i), Line 4.

[5] Public Staff WSIP Exhibit 1, Schedule 2-3(b), Column (c), Line 4.

[6] Public Staff WSIP Exhibit 1, Schedule 2-4(b), Column (i), Line 8.

[7] Public Staff WSIP Exhibit 1, Schedule 2-5(c), Column (e), Line 27.

[8] Public Staff WSIP Exhibit 1, Schedule 2-6(b), Column (i), Line 8.

[9] Public Staff WSIP Exhibit 1, Schedule 2-3(b), Column (c), Line 9.

[10] Public Staff WSIP Exhibit 1, Schedule 2-7(b), Column (c), Line 3.

[11] To remove estimated plant cost in the future.

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Dec 05 2022

CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 400

ORIGINAL COST RATE BASEFor The Rate Year 1 - Rate Year 3 Ended
March 31, 2024 -2026

Public Staff WSIP Exhibit 1

Schedule 2(c)

BF/FH/TC WATER OPERATIONS

Line No.	Item	Rate Year 1				Rate Year 2				Rate Year 3			
		Amount Per Updates (a)	Public Staff Adjustments (b)	[1]	Amount Per Public Staff (c) [2]	Amount Per Updates (d)	Public Staff Adjustments (e)	[1]	Amount Per Public Staff (f) [2]	Amount Per Updates (g)	Public Staff Adjustments (h)	[1]	Amount Per Public Staff (i) [2]
1	Plant in service	\$9,310,093	\$488,182		\$9,798,275 [3]	\$10,702,445	(\$63,228)		\$10,639,217 [3]	\$11,621,736	(\$703,619)		\$10,918,117 [3]
2	Accumulated depreciation	(2,572,995)	(305,855)		(2,878,849) [4]	(2,442,383)	(723,577)		(3,165,959) [4]	(2,356,089)	(1,102,331)		(3,458,421) [4]
3	Net plant in service (L1 + L2)	6,737,098	182,328		6,919,426	8,260,062	(786,805)		7,473,257	9,265,647	(1,805,951)		7,459,696
4	Cash working capital	196,828	(2,515)		194,313 [5]	203,166	(3,832)		199,334 [5]	209,500	(5,142)		204,358 [5]
5	Contributions in aid of construction	(1,036,199)	45,605		(990,594) [6]	(978,492)	45,605		(932,887) [6]	(920,785)	45,605		(875,180) [6]
6	Advances in aid of construction	0	0		0	0	0		0	0	0		0
7	Accumulated deferred income taxes	(19,782)	(63,986)		(83,768) [7]	(19,782)	(51,325)		(71,107) [7]	(19,782)	(27,480)		(47,262) [7]
8	Customer deposits	(18,525)	0		(18,525)	(18,525)	0		(18,525)	(18,525)	0		(18,525)
9	Inventory	3,355	0		3,355	3,355	0		3,355	3,355	0		3,355
10	Gain on sale and flow back taxes	0	0		0	0	0		0	0	0		0
11	Plant acquisition adjustment	(37,500)	(14,202)		(51,703) [8]	(53,354)	(12,987)		(66,342) [8]	(69,208)	(11,651)		(80,859) [8]
12	Excess book value	0	0		0	0	0		0	0	0		0
13	Cost-free capital	0	0		0	0	0		0	0	0		0
14	Average tax accruals	5,534	(9,990)		(4,456) [9]	6,329	(10,893)		(4,564) [9]	6,859	(11,464)		(4,605) [9]
15	Regulatory liability for excess deferred taxes	(358,991)	0		(358,991)	(352,242)	0		(352,242)	(345,492)	0		(345,492)
16	Deferred charges	133,056	(12,488)		120,567 [10]	132,527	(41,922)		90,605 [10]	116,209	(53,196)		63,013 [10]
17	Pro forma plant		0		[11]		0		[11]		0		[11]
18	Original cost rate base (Sum of L3 thru L17)	\$5,604,875	\$124,749		\$5,729,625	\$7,183,044	(\$862,160)		\$6,320,884	\$8,227,779	(\$1,869,280)		\$6,358,498

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

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

[3] Public Staff WSIP Exhibit 1, Schedule 2-1(c), Column (c), Line 2.

[4] Public Staff WSIP Exhibit 1, Schedule 2-1(c), Column (c), Line 4.

[5] Public Staff WSIP Exhibit 1, Schedule 2-3(c), Column (a), Line 4.

[6] Public Staff WSIP Exhibit 1, Schedule 2-4(c), Column (c), Line 8.

[7] Public Staff WSIP Exhibit 1, Schedule 2-5(a), Column (f), Line 2.

[8] Public Staff WSIP Exhibit 1, Schedule 2-6(c), Column (c), Line 8.

[9] Public Staff WSIP Exhibit 1, Schedule 2-3(c), Column (a), Line 9.

[10] Public Staff WSIP Exhibit 1, Schedule 2-7(c), Column (a), Line 3.

[11] To remove estimated plant cost in the future.

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

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

[3] Public Staff WSIP Exhibit 1, Schedule 2-1(c), Column (f), Line 2.

[4] Public Staff WSIP Exhibit 1, Schedule 2-1(c), Column (f), Line 4.

[5] Public Staff WSIP Exhibit 1, Schedule 2-3(c), Column (b), Line 4.

[6] Public Staff WSIP Exhibit 1, Schedule 2-4(c), Column (f), Line 8.

[7] Public Staff WSIP Exhibit 1, Schedule 2-5(b), Line 1.

[8] Public Staff WSIP Exhibit 1, Schedule 2-6(c), Column (f), Line 8.

[9] Public Staff WSIP Exhibit 1, Schedule 2-3(c), Column (b), Line 9.

[10] Public Staff WSIP Exhibit 1, Schedule 2-7(c), Column (b), Line 3.

[11] To remove estimated plant cost in the future.

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

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

[3] Public Staff WSIP Exhibit 1, Schedule 2-1(c), Column (i), Line 2.

[4] Public Staff WSIP Exhibit 1, Schedule 2-1(c), Column (i), Line 4.

[5] Public Staff WSIP Exhibit 1, Schedule 2

[6] Public Staff WSIP Exhibit 1, Schedule 2-4(c), Column (i), Line 8.

[7] Public Staff WSIP

[8] Public Staff WSIP Exhibit 1, Schedule 2-6(c), Column (i), Line 8.

[9] Public Staff WSIP Exhibit 1, Schedule 2-3(c), Column (c), Line 9.

[10] Public Staff WSIP Exhibit 1, Schedule 2-7(c), Column (c), Line 3.

[11] To remove estimated plant cost in the future.

CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 400

ORIGINAL COST RATE BASEFor The Rate Year 1 - Rate Year 3 Ended
March 31, 2024 -2026Public Staff WSIP Exhibit 1
Schedule 2(d)**BF/FH SEWER OPERATIONS**

Line No.	Item	Rate Year 1			Rate Year 2			Rate Year 3		
		Amount Per Updates (a)	Public Staff Adjustments (b)	Amount Per Public Staff (c)	Amount Per Updates (d)	Public Staff Adjustments (e)	Amount Per Public Staff (f)	Amount Per Updates (g)	Public Staff Adjustments (h)	Amount Per Public Staff (i)
1	Plant in service	\$17,807,323	(\$167,030)	\$17,640,293 [3]	\$22,082,418	\$1,315,363	\$23,397,781 [3]	\$25,148,559	(\$1,250,492)	\$23,898,067 [3]
2	Accumulated depreciation	(3,769,452)	(274,920)	(4,044,372) [4]	(3,436,066)	(1,179,967)	(4,616,033) [4]	(3,514,516)	(1,682,512)	(5,197,028) [4]
3	Net plant in service (L1 + L2)	14,037,871	(441,950)	13,595,921	18,646,352	135,396	18,781,748	21,634,043	(2,933,004)	18,701,039
4	Cash working capital	217,316	(18,257)	199,059 [5]	226,224	(22,122)	204,102 [5]	235,015	(25,717)	209,298 [5]
5	Contributions in aid of construction	(3,479,452)	80,890	(3,398,562) [6]	(3,328,817)	80,890	(3,247,927) [6]	(3,178,182)	80,890	(3,097,292) [6]
6	Advances in aid of construction	0	0	0	0	0	0	0	0	0
7	Accumulated deferred income taxes	(393,654)	65,052	(328,602) [7]	(393,654)	(110,279)	(503,933) [7]	(393,654)	(61,271)	(454,925) [7]
8	Customer deposits	(18,963)	0	(18,963)	(18,963)	0	(18,963)	(18,963)	0	(18,963)
9	Inventory	3,434	0	3,434	3,434	0	3,434	3,434	0	3,434
10	Gain on sale and flow back taxes	0	0	0	0	0	0	0	0	0
11	Plant acquisition adjustment	808,132	(48,632)	759,501 [8]	764,282	(46,952)	717,331 [8]	720,432	(44,936)	675,497 [8]
12	Excess book value	0	0	0	0	0	0	0	0	0
13	Cost-free capital	0	0	0	0	0	0	0	0	0
14	Average tax accruals	6,091	(361)	5,730 [9]	7,518	(1,753)	5,765 [9]	8,535	(2,699)	5,836 [9]
15	Regulatory liability for excess deferred taxes	(367,464)	0	(367,464)	(360,555)	0	(360,555)	(353,646)	0	(353,646)
16	Deferred charges	127,162	20,519	147,682 [10]	157,881	(43,839)	114,042 [10]	137,402	(57,000)	80,402 [10]
17	Pro forma plant		0			0			0	
18	Original cost rate base (Sum of L3 thru L17)	\$10,940,475	(\$342,739)	\$10,597,736	\$15,703,704	(\$8,660)	\$15,695,044	\$18,794,417	(\$3,043,737)	\$15,750,681

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

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

[3] Public Staff WSIP Exhibit 1, Schedule 2-1(d), Column (c), Line 2.

[4] Public Staff WSIP Exhibit 1, Schedule 2-1(d), Column (c), Line 4.

[5] Public Staff WSIP Exhibit 1, Schedule 2-3(d), Column (a), Line 4.

[6] Public Staff WSIP Exhibit 1, Schedule 2-4(d), Column (i), Line 9.

[7] Public Staff WSIP Exhibit 1, Schedule 2-5(a), Column (g), Line 27.

[8] Public Staff WSIP Exhibit 1, Schedule 2-6(d), Column (c), Line 8.

[9] Public Staff WSIP Exhibit 1, Schedule 2-3(d), Column (a), Line 9.

[10] Public Staff WSIP Exhibit 1, Schedule 2-7(d), Column (a), Line 3.

[11] To remove estimated plant cost in the future.

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

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

[3] Public Staff WSIP Exhibit 1, Schedule 2-1(d), Column (f), Line 2.

[4] Public Staff WSIP Exhibit 1, Schedule 2-1(d), Column (f), Line 4.

[5] Public Staff WSIP Exhibit 1, Schedule 2-3(d), Column (b), Line 4.

[6] Public Staff WSIP Exhibit 1, Schedule 2-4(d), Column (i), Line 9.

[7] Public Staff WSIP Exhibit 1, Schedule 2-5(b), Column (g), Line 27.

[8] Public Staff WSIP Exhibit 1, Schedule 2-6(d), Column (f), Line 8.

[9] Public Staff WSIP Exhibit 1, Schedule 2-3(d), Column (b), Line 9.

[10] Public Staff WSIP Exhibit 1, Schedule 2-7(d), Column (b), Line 3.

[11] To remove estimated plant cost in the future.

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

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

[3] Public Staff WSIP Exhibit 1, Schedule 2-1(d), Column (i), Line 2.

[4] Public Staff WSIP Exhibit 1, Schedule 2-1(d), Column (i), Line 4.

[5] Public Staff WSIP Exhibit 1, Schedule 2-3(d), Column (c), Line 4.

[6] Public Staff WSIP Exhibit 1, Schedule 2-4(d), Column (i), Line 9.

[7] Public Staff WSIP Exhibit 1, Schedule 2-5(c), Column (g), Line 27.

[8] Public Staff WSIP Exhibit 1, Schedule 2-6(d), Column (i), Line 8.

[9] Public Staff WSIP Exhibit 1, Schedule 2-3(d), Column (c), Line 9.

[10] Public Staff WSIP Exhibit 1, Schedule 2-7(d), Column (c), Line 3.

[11] To remove estimated plant cost in the future.

CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 400

**CALCULATION OF PLANT IN SERVICE AND
ACCUMULATED DEPRECIATION**

For The Test Year Ended March 31, 2022

Public Staff WSIP Exhibit 1
Schedule 2-1(a)**CWSNC WATER OPERATIONS**

Line No.	Item	Amount Per Updates (a)	Base Year Public Staff Adjustments [1] (b)	Amount Per Public Staff (c) [2]
	<u>Plant In Service:</u>			
1	Direct plant in service	\$130,462,447	\$ (1,117,751)	\$129,344,696 [3]
2	Total plant in service	<u>\$130,462,447</u>	<u>\$ (1,117,751)</u>	<u>\$129,344,696</u>
	<u>Accumulated Depreciation:</u>			
3	Direct accumulated depreciation	(\$36,715,615)	\$343,704	(\$36,371,911) [4]
4	Total accumulated depreciation	<u>(\$36,715,615)</u>	<u>\$343,704</u>	<u>(\$36,371,911)</u>

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

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

[3] Public Staff WSIP Exhibit 1, Schedule 2-1(a)(1), P.1, Column (d), Line 53.

[4] Public Staff WSIP Exhibit 1, Schedule 2-2, Column (a), Line 8.

CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 400

**CALCULATION OF PLANT IN SERVICE AND
ACCUMULATED DEPRECIATION**

For The Test Year Ended March 31, 2022

Public Staff WSIP Exhibit 1
Schedule 2-1(b)**CWSNC SEWER OPERATIONS**

Line No.	Item	Amount Per Updates (a)	Base Year Public Staff Adjustments [1] (b)	Amount Per Public Staff [2] (c)
	<u>Plant In Service:</u>			
1	Direct plant in service	\$116,603,269	(\$1,177,192)	\$115,426,078 [3]
2	Total plant in service	<u>\$116,603,269</u>	<u>(\$1,177,192)</u>	<u>\$115,426,078</u>
	<u>Accumulated Depreciation:</u>			
3	Direct accumulated depreciation	(\$29,683,192)	\$292,468	(\$29,390,724) [4]
4	Total accumulated depreciation	<u>(\$29,683,192)</u>	<u>\$292,468</u>	<u>(\$29,390,724)</u>

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

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

[3] Public Staff WSIP Exhibit 1, Schedule 2-1(b)(1), P.2, Column (d), Line 70.

[4] Public Staff WSIP Exhibit 1, Schedule 2-2, Column (b), Line 8.

CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 400

**CALCULATION OF PLANT IN SERVICE AND
ACCUMULATED DEPRECIATION**

For The Test Year Ended March 31, 2022

Public Staff WSIP Exhibit 1
Schedule 2-1(c)**BF/FH/TC WATER OPERATIONS**

Line No.	Item	Amount Per Updates (a)	Base Year Public Staff Adjustments (b)	[1]	Amount Per Public Staff (c)	[2]
	<u>Plant In Service:</u>					
1	Direct plant in service	\$7,360,146	(\$19,729)		\$7,340,417	[3]
2	Total plant in service	<u>\$7,360,146</u>	<u>(\$19,729)</u>		<u>\$7,340,417</u>	
	<u>Accumulated Depreciation:</u>					
3	Direct accumulated depreciation	(\$2,519,662)	\$20,982		(\$2,498,680)	[4]
4	Total accumulated depreciation	<u>(\$2,519,662)</u>	<u>\$20,982</u>		<u>(\$2,498,680)</u>	

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

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

[3] Public Staff WSIP Exhibit 1, Schedule 2-1(c)(1), P.3, Column (d), Line 43.

[4] Public Staff WSIP Exhibit 1, Schedule 2-2, Column (c), Line 8.

CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 400

**CALCULATION OF PLANT IN SERVICE AND
ACCUMULATED DEPRECIATION**

For The Test Year Ended March 31, 2022

Public Staff WSIP Exhibit 1
Schedule 2-1(d)**BF/FH SEWER OPERATIONS**

Line No.	Item	Amount Per Updates (a)	Base Year Public Staff Adjustments [1] (b)	Amount Per Public Staff [2] (c)
	<u>Plant In Service:</u>			
1	Direct plant in service	\$16,528,468	(\$25,264)	\$16,503,204 [3]
2	Total plant in service	<u>\$16,528,468</u>	<u>(\$25,264)</u>	<u>\$16,503,204</u>
	<u>Accumulated Depreciation:</u>			
3	Direct accumulated depreciation	(\$3,444,878)	\$67,025	(\$3,377,853) [4]
4	Total accumulated depreciation	<u>(\$3,444,878)</u>	<u>\$67,025</u>	<u>(\$3,377,853)</u>

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

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

[3] Public Staff WSIP Exhibit 1, Schedule 2-1(d)(1), P.4, Column (d), Line 52.

[4] Public Staff WSIP Exhibit 1, Schedule 2-2, Column (d), Line 8.

CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 400

**CALCULATION OF PLANT IN SERVICE AND
ACCUMULATED DEPRECIATION**

For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 2-1(a)

CWSNC WATER OPERATIONS

Line No.	Item	Rate Year 1				Rate Year 2				Rate Year 3			
		Amount Per RY1	Public Staff Adjustments	[1] Public Staff RY1 [2]	Amount Per RY2	Public Staff Adjustments	[1] Public Staff RY2 [2]	Amount Per RY3	Public Staff Adjustments	[1] Public Staff RY3 [2]	Amount Per RY1	Public Staff Adjustments	[1] Public Staff RY1 [2]
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)			
Plant In Service:													
1	Plant in service	\$139,911,295	\$ (88,142)	\$139,823,153 [3]	\$149,145,207	\$ (1,091,048)	\$148,054,158 [3]	\$157,765,005	\$ (6,292,186)	\$151,472,819 [3]			
2	Total plant in service	\$139,911,295	(\$88,142)	\$139,823,153	\$149,145,207	(\$1,091,048)	\$148,054,158	\$157,765,005	(\$6,292,186)	\$151,472,819			
Accumulated Depreciation:													
3	Accumulated depreciation	(\$39,069,396)	(\$3,967,452)	(\$43,036,849) [4]	(\$40,736,813)	(\$6,834,537)	(\$47,571,350) [4]	(\$43,503,074)	(\$8,715,564)	(\$52,218,638) [4]			
4	Total accumulated depreciation	(\$39,069,396)	(\$3,967,452)	(\$43,036,849)	(\$40,736,813)	(\$6,834,537)	(\$47,571,350)	(\$43,503,074)	(\$8,715,564)	(\$52,218,638)			

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

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

[3] Public Staff WSIP Exhibit 1, Schedule 2-1(a)(1), P. 1, Column (c), Line 53.

[4] Public Staff WSIP Exhibit 1, Schedule 2-2(a), Column (a) , Line 8.

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

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

[3] Public Staff WSIP Exhibit 1, Schedule 2-1(a)(2), P.1, Column (c), Line 53.

[4] Public Staff WSIP Exhibit 1, Schedule 2-2(a), Column (b) , Line 8.

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

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

[3] Public Staff WSIP Exhibit 1, Sch 2-1(a)(3), P.1, Column (c), Line 53.

[4] Public Staff WSIP Exhibit 1, Schedule 2-2(a), Column (c) , Line 8.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
**CALCULATION OF PLANT IN SERVICE AND
ACCUMULATED DEPRECIATION**

Public Staff WSIP Exhibit 1
Schedule 2-1(b)

For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

CWSNC SEWER OPERATIONS

Line No.	Item	Rate Year 1			Rate Year 2			Rate Year 3		
		Amount Per RY1	Public Staff Adjustments	Amount Per Public Staff RY1 [2]	Amount Per RY2	Public Staff Adjustments	Amount Per Public Staff RY2 [2]	Amount Per RY3	Public Staff Adjustments	Amount Per Public Staff RY3 [2]
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
Plant In Service:										
1	Updated plant in service	\$124,965,063	\$6,639,929	\$131,604,993 [3]	\$138,390,155	(\$1,965,710)	\$136,424,446 [3]	\$151,288,445	\$2,201,265	\$153,489,710 [3]
2	Total plant in service	<u>\$124,965,063</u>	<u>\$6,639,929</u>	<u>\$131,604,993</u>	<u>\$138,390,155</u>	<u>(\$1,965,710)</u>	<u>\$136,424,446</u>	<u>\$151,288,445</u>	<u>\$2,201,265</u>	<u>\$153,489,710</u>
Accumulated Depreciation:										
3	Updated accumulated depreciation	(\$31,282,947)	(\$3,907,596)	(\$35,190,543) [4]	(\$31,927,240)	(\$7,198,636)	(\$39,125,877) [4]	(\$33,274,358)	(\$10,226,745)	(\$43,501,103) [4]
4	Total accumulated depreciation	<u>(\$31,282,947)</u>	<u>(\$3,907,596)</u>	<u>(\$35,190,543)</u>	<u>(\$31,927,240)</u>	<u>(\$7,198,636)</u>	<u>(\$39,125,877)</u>	<u>(\$33,274,358)</u>	<u>(\$10,226,745)</u>	<u>(\$43,501,103)</u>

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

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

[3] Public Staff WSIP Exhibit 1, Schedule 2-1(a)(1), P. 2, Column (c), Line 70.

[4] Public Staff WSIP Exhibit 1, Schedule 2-2(b), Column (a), Line 8.

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

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

[3] Public Staff WSIP Exhibit 1, Schedule 2-1(a)(2), P. 2, Column (c), Line 70.

[4] Public Staff WSIP Exhibit 1, Schedule 2-2(b), Column (b), Line 8.

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

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

[3] Public Staff WSIP Exhibit 1, Sch 2-1(a)(3), P. 2, Column (c), Line 70.

[4] Public Staff WSIP Exhibit 1, Schedule 2-2(b), Column (c), Line 8.

CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 400

**CALCULATION OF PLANT IN SERVICE AND
ACCUMULATED DEPRECIATION**

For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 2-1(c)**BF/FH/TC WATER OPERATIONS**

Line No.	Item	Amount Per	<u>Rate Year 1</u>	Amount Per	Amount Per	<u>Rate Year 2</u>	Amount Per	Amount Per	<u>Rate Year 3</u>	Amount Per
		RY1	Public Staff Adjustments	[1] Public Staff RY1 [2]	RY2	Public Staff Adjustments	[1] Public Staff RY2 [2]	RY3	Public Staff Adjustments	[1] Public Staff RY3 [2]
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
	Plant In Service:									
1	Updated plant in service	\$9,310,093	\$488,182	\$9,798,275 [3]	\$10,702,445	(\$63,228)	\$10,639,217 [3]	\$11,621,736	(\$703,619)	\$10,918,117 [3]
2	Total plant in service	<u>\$9,310,093</u>	<u>\$488,182</u>	<u>\$9,798,275</u>	<u>\$10,702,445</u>	<u>(\$63,228)</u>	<u>\$10,639,217</u>	<u>\$11,621,736</u>	<u>(\$703,619)</u>	<u>\$10,918,117</u>
	Accumulated Depreciation:									
3	Updated accumulated depreciation	(\$2,572,995)	(\$305,855)	(\$2,878,849) [4]	(\$2,442,383)	(\$723,577)	(\$3,165,959) [4]	(\$2,356,089)	(\$1,102,331)	(\$3,458,421) [4]
4	Total accumulated depreciation	<u>(\$2,572,995)</u>	<u>(\$305,855)</u>	<u>(\$2,878,849)</u>	<u>(\$2,442,383)</u>	<u>(\$723,577)</u>	<u>(\$3,165,959)</u>	<u>(\$2,356,089)</u>	<u>(\$1,102,331)</u>	<u>(\$3,458,421)</u>

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

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

[3] Public Staff WSIP Exhibit 1, Schedule 2-1(a)(1), P. 3, Column (c), Line 43.

[4] Public Staff WSIP Exhibit 1, Schedule 2-2(c), Column (a), Line 8.

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

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

[3] Public Staff WSIP Exhibit 1, Schedule 2-1(a)(2), P.3, Column (c), Line 43.

[4] Public Staff WSIP Exhibit 1, Schedule 2-2(c), Column (b), Line 8.

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

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

[3] Public Staff WSIP Exhibit 1, Sch 2-1(a)(3), P.3, Column (c), Line 43.

[4] Public Staff WSIP Exhibit 1, Schedule 2-2(c), Column (c), Line 8.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
**CALCULATION OF PLANT IN SERVICE AND
ACCUMULATED DEPRECIATION**

Public Staff WSIP Exhibit 1
Schedule 2-1(d)

For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

BF/FH SEWER OPERATIONS

Line No.	Item	Rate Year 1				Rate Year 2				Rate Year 3			
		Amount Per RY1	Public Staff Adjustments	[1] Public Staff RY1 [2]	Amount Per RY2	Public Staff Adjustments	[1] Public Staff RY2 [2]	Amount Per RY3	Public Staff Adjustments	[1] Public Staff RY3 [2]	Amount Per RY1	Public Staff Adjustments	[1] Public Staff RY1 [2]
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)			
Plant In Service:													
1	Updated plant in service	\$17,807,323	(\$167,030)	\$17,640,293 [3]	\$22,082,418	\$1,315,363	\$23,397,781 [3]	\$25,148,559	(\$1,250,492)	\$23,898,067 [3]			
2	Total plant in service	<u>\$17,807,323</u>	<u>(\$167,030)</u>	<u>\$17,640,293</u>	<u>\$22,082,418</u>	<u>\$1,315,363</u>	<u>\$23,397,781</u>	<u>\$25,148,559</u>	<u>(\$1,250,492)</u>	<u>\$23,898,067</u>			
Accumulated Depreciation:													
3	Updated accumulated depreciation	(\$3,769,452)	(\$274,920)	(\$4,044,372) [4]	(\$3,436,066)	(\$1,179,967)	(\$4,616,033) [4]	(\$3,514,516)	(\$1,682,512)	(\$5,197,028) [4]			
4	Total accumulated depreciation	<u>(\$3,769,452)</u>	<u>(\$274,920)</u>	<u>(\$4,044,372)</u>	<u>(\$3,436,066)</u>	<u>(\$1,179,967)</u>	<u>(\$4,616,033)</u>	<u>(\$3,514,516)</u>	<u>(\$1,682,512)</u>	<u>(\$5,197,028)</u>			

- [1] Column (c) minus Column (a), unless otherwise footnoted.
[2] Column (a) plus Column (b), unless otherwise footnoted.
[3] Public Staff WSIP Exhibit 1, Schedule 2-1(a)(1), P. 4, Column (c), Line 52.
[4] Public Staff WSIP Exhibit 1, Schedule 2-2(d), Column (a), Line 8.

- [1] Column (c) minus Column (a), unless otherwise footnoted.
[2] Column (a) plus Column (b), unless otherwise footnoted.
[3] Public Staff WSIP Exhibit 1, Schedule 2-1(a)(2), P.4, Column (c), Line 52.
[4] Public Staff WSIP Exhibit 1, Schedule 2-2(d), Column (b), Line 8.

- [1] Column (c) minus Column (a), unless otherwise footnoted.
[2] Column (a) plus Column (b), unless otherwise footnoted.
[3] Public Staff WSIP Exhibit 1, Sch 2-1(a)(3), P.4, Column (c), Line 52.
[4] Public Staff WSIP Exhibit 1, Schedule 2-2(d), Column (c), Line 8.

Carolina Water Service, Inc. of North Carolina
W - 354 Sub 400
CALCULATION OF PLANT IN SERVICE
For The Base Year Ended March 31, 2022

Public Staff WSIP Exhibit 1
Schedule 2-1(a)(1)
Page 1 of 4

CWSNC WATER OPERATIONS

Line		New Account															Total PS	
No.	No.	Item	Amount per	Amount per	Company	Remove Company	Actual PTY	PS	ERC	Florence	AFUDC	Reclassifi	Amount per PS	Total PS				
			Updates Direct	Updates Allocated			additions	Engineering	adjustment	Proceeds	adjustments								cation
			(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)
1.	141201	Organization	410,367	73,688	521	(521)	0	521	0	0	0	0	484,577	0				
2.	141202	Franchises	140,283	89,232	0	0	0	0	0	0	0	0	229,516	0				
3.	141102	Land & land rights pump	0	50,818	0	0	0	0	0	0	0	0	50,818	0				
4.	141501	Computer Hardware	0	703	(37)	37	0	0	(30)	0	0	0	673	7				
5.	141502	Desktop/Laptop Computers	0	15,859	40,053	(40,053)	0	0	(679)	0	0	0	15,181	(40,731)				
6.	141101	Land & land rights gen. plt.	0	717,824	150,596	(150,596)	150,596	0	0	0	0	0	868,420	0				
7.	141204	Struct & improv. src. supply	4,465,609	16,279	27,059	(27,059)	24,011	0	0	0	0	0	4,505,898	(3,048)				
8.	141205	Struct & improv. wtr. trt. plt.	1,572,780	31,094	39,175	(39,175)	34,026	0	0	0	0	0	1,637,901	(5,148)				
9.	141206	Struct & improv. trans. dist.	288,439	3,978	2,389	(2,389)	1,587	0	0	0	0	0	294,004	(802)				
10.	141203	Struct & improv. gen. plt.	371,949	2,709	51,504	(51,504)	50,103	0	0	0	0	0	424,761	(1,401)				
11.	141221	Collecting reservoirs	14,695	0	717,687	(717,687)	717,687	0	0	0	0	0	732,382	0				
12.	141223	Wells & springs	14,603,514	213,136	31,115	(31,115)	24,871	0	0	(1,077)	0	0	14,840,443	(7,321)				
13.	141224	Infiltration gallery	45,185	0	0	0	0	0	0	0	0	0	45,185	0				
14.	141225	Supply mains	788,510	303	74,366	(74,366)	65,241	0	0	0	0	0	854,054	(9,125)				
15.	141226	Power generation equip.	162,616	0	4,857	(4,857)	4,805	0	0	0	0	0	167,421	(52)				
16.	141227	Electric pump equip. src. plt.	2,944,455	3,127	82,461	(82,461)	77,797	0	(180)	(4)	0	0	3,025,195	(4,849)				
17.	141228	Electric pump equip. wtp.	8,885,752	296,055	208,094	(208,094)	184,086	0	0	0	0	0	9,365,894	(24,009)				
18.	141229	Electric pump equip. trans.	3,899,131	2,157	895,639	(895,639)	890,004	0	(2,921)	0	0	0	4,788,370	(8,557)				
19.	141230	Water treatment equip.	5,625,394	184,273	384,494	(384,494)	62,593	0	(5,951)	(649)	0	0	5,865,660	(328,502)				
20.	141231	Dist. rev. & standpipes	8,196,939	683,659	58,316	(58,316)	46,879	0	0	(179)	0	0	8,927,298	(11,617)				
21.	141232	Trans. & distr. mains	35,491,938	442,856	516,345	(516,345)	335,205	0	(178,375)	(138)	0	0	36,091,486	(359,653)				
22.	141233	Service lines	14,406,827	147,037	614,916	(614,916)	543,961	0	(437)	0	0	0	15,097,388	(71,392)				
23.	141234	Meters	6,324,924	188,747	42,553	(42,553)	36,746	0	0	(46)	0	0	6,550,372	(5,853)				
24.	141235	Meter installations	2,057,561	615	43,542	(43,542)	39,195	0	0	(973)	0	0	2,096,397	(5,321)				
25.	141236	Hydrants	1,413,906	767	43,796	(43,796)	39,089	0	0	0	0	0	1,453,761	(4,707)				
26.	141237	Backflow prevention device	45,312	0	16,215	(16,215)	16,034	0	0	0	0	0	61,347	(181)				
27.	141268	Other plt. & misc. equip. src. su.	0	260	0	0	0	0	0	0	0	0	260	0				
28.	141269	Other plt. & misc. equip. wtp.	20,187	1,597	3,185	(3,185)	3,185	0	0	0	0	0	24,969	0				
29.	141220	Office struct & improv.	99,061	487,148	244,803	(244,803)	10,933	(14,618)	0	(17)	0	0	582,507	(248,505)				
30.	141303	Office furn. & equip.	89,664	499,273	(10,487)	10,487	978	(10,384)	0	0	0	0	579,532	1,081				
31.	141305	Stores equipment	15,973	202	292	(292)	91	(8)	0	0	0	0	16,258	(209)				
32.	141308	Tool shop & misc. equip.	502,559	579,059	8,897	(8,897)	8,470	(89)	0	0	0	0	1,089,999	(516)				
33.	141306	Laboratory equipment	66,989	64,560	401	(401)	269	0	0	0	0	0	131,819	(132)				
34.	141309	Power operated equip.	360,477	2,740	11,654	(11,654)	11,116	0	0	0	0	0	374,333	(538)				
35.	141310	Communication equip.	155,241	158,446	12,841	(12,841)	14,310	(1,513)	0	0	0	0	326,583	(45)				
36.	141311	Misc. equipment	193,043	7,655	15,193	(15,193)	14,504	0	0	0	0	0	215,202	(689)				
37.	141278	Water plant allocated	207,809	0	0	0	0	0	0	0	0	0	207,809	0				
38.	141271	Other tangible plt. water	1,181	37,219	10,327	(10,327)	10,327	0	0	0	0	0	48,727	0				
39.	141248	Receiving Wells	176,744	0	0	0	0	0	0	(141)	0	0	176,603	(141)				
40.	141401	Transportation equip.	0	2,053,046	276,107	(276,107)	307,162	(214)	0	0	0	0	2,369,014	30,861				
41.	141503	Mainframe computer - wtr	0	133,851	(5,733)	5,733	0	(4,591)	0	0	0	0	129,260	1,141				
42.	141504	Mini computer - wtr	9,712	1,293,864	(36,690)	36,690	1,295	(42,957)	0	0	0	0	1,261,915	(4,972)				
43.	141602	Comp. system cost - wtr	0	3,323,886	(168,429)	168,429	0	(136,755)	0	0	0	0	3,187,131	31,673				
44.	141603	Micro system cost - wtr	0	65,896	(2,956)	2,956	0	(2,375)	0	0	0	0	63,521	580				
45.	141255	Plant Sewers Treatment P t	23,751	0	0	0	0	0	0	0	0	(23,751)	0	(23,751)				
46.	141299	Util ty Plant Clearing	0	0	(0)	0	0	(0)	0	0	0	0	(0)	0				
47.	141699	Computer Clearing	0	0	0	(0)	0	0	0	0	0	0	0	(0)				
48.	141601	Computer Software	0	104,466	6,861	(6,861)	0	(4,470)	0	0	0	0	99,996	(11,331)				
49.	141103	Land and Rights Water	0	357,109	0	0	0	0	0	0	0	0	357,109	0				
50.	141104	Land and Rights Trans	0	18,896	0	0	0	0	0	0	0	0	18,896	0				
51.	141293	Plant Held for Future Use	0	(382,146)	0	0	0	0	0	0	0	0	(382,146)	0				
52.	141399	Building and Equipment Clearing	0	0	0	(0)	0	0	0	0	0	0	0	0				
53.	Total plant in service (Sum of L1 thru L52)		114,078,577	11,971,944	4,411,925	(4,411,925)	3,727,699	0	(218,683)	(187,864)	(3,225)	(23,751)	129,344,696	(1,117,751)				

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
CALCULATION OF PLANT IN SERVICE
For The Base Year Ended March 31, 2022

Public Staff WSP Exhibit 1
Schedule 2-1(a)(1)
Page 2 of 4

CWSNC SEWER OPERATIONS

Line No.	No.	Item	Amount per Updates Direct (a)	Amount per Updates Allocated (b)	Company Proforma (c)	Remove Company Proforma (d)	Actual PTY additions (e)	PS Adj / Engineering (f)	ERC adjustment (g)	Florence Proceeds (h)	AFUDC adjustments (i)	Reclassification (j)	Amount per PS (k)	Total PS Adj. (l)
1.	141201	Organization	883,492	0	0	0	0	0	0	0	0	0	883,492	0
2.	141202	Franchises intang. plt.	127,476	0	0	0	0	0	0	0	0	0	127,476	0
3.	141107	Land & land rights trmt p t	0	39,167	0	0	0	0	0	0	0	0	39,167	0
4.	141108	Land & land rights reclaim.	0	1,150	0	0	0	0	0	0	0	0	1,150	0
5.	141101	Land and Rights General	0	0	0	0	0	0	0	0	0	0	0	0
6.	141207	Struct/improv. coll. plt.	103,601	979	4,356	(4,356)	4,001	0	0	0	0	0	108,582	(354)
7.	141208	Struct/improv. pump plt. ls.	11,299,690	18,599	125,558	(125,558)	121,979	0	(180)	(2,090)	0	0	11,437,999	(5,848)
8.	141209	Struct/improv. treat. plt.	20,050,256	0	22,537	(22,537)	22,993	0	(4,621)	(31)	0	0	20,068,597	(4,197)
9.	141210	Struct/improv. reclaim. wtr.	2,586	685	0	0	0	0	0	0	0	0	3,271	0
10.	141211	Struct/improv. reclaim. wtr.	180,481	0	16	(16)	0	0	0	0	0	0	180,481	(16)
11.	141203	Struct/improv. gen. plt.	1,683,989	0	25,430	(25,430)	23,256	0	0	0	0	0	1,707,245	(2,174)
12.	141238	Power gen. equip. coll. plt.	107,623	0	0	0	0	0	0	0	0	0	107,623	0
13.	141239	Power gen. equip. pump plt.	53,341	0	14	(14)	0	0	0	0	0	0	53,341	(14)
14.	141240	Power gen. equip. treat. plt.	308,117	0	6,287	(6,287)	5,100	0	0	0	0	0	313,217	(1,187)
15.	141241	Sewer force main/serv. in.	3,802,928	61,991	608,705	(608,705)	601,749	0	(283)	(37)	0	0	4,466,350	(7,274)
16.	141242	Sewer gravity main	17,893,123	494,361	2,054,567	(2,054,567)	949,079	0	0	(122)	0	0	19,336,441	(1,105,610)
17.	141243	Manholes	1,477,376	229,482	52,144	(52,144)	44,389	0	0	(69)	0	0	1,751,178	(7,824)
18.	141244	Special coll. structures	7,032	0	21	(21)	0	0	0	0	0	0	7,032	(21)
19.	141245	Services to customers	2,179,151	0	86,014	(86,014)	69,241	0	0	0	1,055	0	2,249,446	(15,718)
20.	141246	Flow measure devices	143,165	0	3,084	(3,084)	5,503	0	(2,935)	0	0	0	145,734	(515)
21.	141247	Flow measure install	1,106	0	2	(2)	0	0	0	0	0	0	1,106	(2)
22.	141248	Receiving wells	211,824	0	25,449	(25,449)	22,160	0	0	0	0	0	233,985	(3,288)
23.	141249	Pumping equipment pump plt.	4,834,611	470	323,264	(323,264)	309,978	0	(2,327)	0	0	0	5,142,732	(15,613)
24.	141250	Pumping equipment reclaim.	37,868	0	1,869	(1,869)	1,782	0	0	0	0	0	39,650	(87)
25.	141251	Pumping equipment rcl. wtr.	80,351	0	3,427	(3,427)	3,104	0	0	0	0	0	83,456	(322)
26.	141252	Treat./disp. equip. lagoon	594,849	210	3,214	(3,214)	2,680	0	0	0	0	0	597,738	(534)
27.	141253	Treat./disp. equip. trt. plt.	18,763,604	690,274	132,773	(132,773)	113,414	0	(1,467)	0	0	0	19,565,824	(20,826)
28.	141254	Treat./disp. equip. rcl. wtr.	16,414	0	13,760	(13,760)	12,973	0	0	0	0	0	29,387	(787)
29.	141255	Plant sewers treat. plt.	17,924,214	0	42,634	(42,634)	41,767	0	(3,577)	(178)	23,751	0	17,985,978	19,130
30.	141256	Plant sewers reclaim wtr.	5,802	0	2,277	(2,277)	2,263	0	0	0	0	0	8,065	(14)
31.	141257	Outfall lines	645,213	0	15,146	(15,146)	11,576	0	0	(446)	0	0	656,343	(4,017)
32.	141271	Other plt. tang ble	14,761	0	194	(194)	0	0	0	0	0	0	14,761	(194)
33.	141272	Other plt. collection	10,854	10,612	798	(798)	787	0	0	0	0	0	22,253	(11)
34.	141273	Other plt. pump	468,119	2,931	3,094	(3,094)	2,976	0	0	0	0	0	474,026	(117)
35.	141274	Other plt. treatment	334,705	5,329	1,401	(1,401)	111	0	0	0	(76)	0	340,069	(1,367)
36.	141275	Other plt. reclaim wtr. trt.	0	650	0	0	0	0	0	0	0	0	650	0
37.	141276	Other p.t. reclaim wtr. dis.	460	0	0	0	0	0	0	0	0	0	460	0
38.	141220	Office struct & improv.	47,616	275,108	4,120	(4,120)	13,962	(8,721)	0	0	0	0	327,965	1,121
39.	141303	Office furn. & equip.	49,603	286,995	(6,993)	6,993	0	(6,195)	0	0	0	0	330,403	798
40.	141305	Stores equipment	6,961	113	1,218	(1,218)	1,155	(5)	0	0	0	0	8,224	(69)
41.	141308	Tool shop & misc. equip.	207,772	345,148	19,112	(19,112)	18,835	(53)	0	0	0	0	571,703	(330)
42.	141306	Laboratory equipment	156,399	38,517	3,214	(3,214)	2,888	0	0	0	0	0	197,804	(326)
43.	141309	Power operated equip.	458,893	1,544	20,874	(20,874)	19,245	0	0	0	0	0	479,682	(1,629)
44.	141310	Communication equip.	94,049	93,245	9,804	(9,804)	10,425	(903)	0	0	0	0	196,817	(282)
45.	141311	Misc equip. sewer	37,147	4,567	30,241	(30,241)	29,617	0	0	0	0	0	71,331	(623)
46.	141278	Sewer plant allocated	526,952	0	0	0	0	0	0	0	0	0	526,952	0
47.	0	Other tangible plt. sewer	0	0	0	0	0	0	0	0	0	0	0	0
48.	141263	Reuse dist. reservoirs	3,507	0	2	(2)	0	0	0	0	0	0	3,507	(2)
49.	141264	Reuse transmission & dist.	85,783	0	36,199	(36,199)	35,336	0	0	0	0	0	121,119	(862)
50.	141401	Transportation equip.	0	1,224,860	164,727	(164,727)	183,267	(128)	0	0	0	0	1,407,999	18,412
51.	141502	Desktop computer - wtr	0	9,462	23,896	(23,896)	0	(405)	0	0	0	0	9,957	(24,301)
52.	141503	Mainframe computer - wtr	0	79,857	(3,420)	3,420	0	(2,739)	0	0	0	0	77,118	691
53.	141504	Mini computer - wtr	1,659	776,062	(21,889)	21,889	1,026	(25,628)	0	0	0	0	753,119	(2,713)
54.	141602	Comp. system cost - wtr	109,012	1,874,038	(100,485)	100,485	0	(81,589)	0	0	0	0	1,901,461	18,897
55.	141603	Micro system cost - wtr	0	39,314	(1,764)	1,764	0	(1,417)	0	0	0	0	37,897	347
56.	141501	Computer Hardware	0	418	(22)	22	0	(19)	0	0	0	0	401	4
57.	141601	Computer Software	0	62,326	4,053	(4,053)	0	(2,667)	0	0	0	0	59,659	(6,766)
58.	141699	Computer Clearing	0	0	0	(0)	0	0	0	0	0	0	0	(0)
59.	141231	Dist Resv and Standpipes	0	20,648	(75)	75	0	0	0	0	0	0	20,648	75
60.	141232	Trans and Distr Mains	0	68,271	(248)	248	0	0	0	0	0	0	68,271	248
61.	141299	Utility Plant Clearing	0	0	(0)	0	(0)	0	0	0	0	0	(0)	0
62.	141399	Building and Equipment Clearing	0	0	0	0	(0)	0	0	0	0	0	0	0
63.	141233	Service Lines	935	0	20	(20)	0	0	0	0	0	(1,055)	(120)	(1,075)
64.	141293	Pit, held for future use	0	(227,990)	0	0	0	0	0	0	0	0	(227,990)	0
66.	141205		0	0	0	0	0	0	0	0	0	0	0	0
67.	141230		0	0	0	0	0	0	0	0	0	0	0	0
68.	113101		0	0	0	0	0	0	0	0	0	0	0	0
69.	141228	Pro forma plant additions	297,974	0	772	(772)	772	0	0	0	0	0	298,746	0
70.	Total plant in service (Sum of L1 thru L69)		106,332,448	6,529,392	3,741,429	(3,741,429)	2,689,391	0	(130,468)	(15,389)	(3,048)	23,751	115,426,078	(1,177,192)

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CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub-400

Public Staff WSIP Exhibit 1

CALCULATION OF PLANT IN SERVICE
For The Base Year Ended March 31, 2022Schedule 2-1(a)(1)
Page 3 of 4

BF/FH WATER OPERATIONS

Line

No.	No.	Item	Amount per	Amount per	Company	Remove Company	Actual PTY	PS Adj /	ERC	Florence	AFUDC	Reclassifi	Amount per PS	Total PS
			Updates Direct	Updates Allocated	Proforma	Proforma	additions	Engineering	adjustment	Proceeds	adjustments	cation		
			(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
1.	141101	Land and Rights General	0	13,990	0	0	0	0	0	0	0	0	13,990	0
2.	141102	Land and Rights Pump	0	21,025	0	0	0	0	0	0	0	0	21,025	0
3.	141201	Orainization	79,800	21,066	0	0	0	0	0	0	0	0	100,866	0
4.	141202	Franchises	51,240	0	0	0	0	0	0	0	0	0	51,240	0
5.	141203	Struct and Improv General Plant	2,244	0	28	(28)	0	0	0	0	0	0	2,244	(28)
6.	141204	Struct and Improv Service Supplies	201,865	393	13,624	(13,624)	12,751	0	0	0	0	0	215,009	(872)
7.	141205	Struct and Improv Water Treat Pit	147,167	0	219	(219)	118	0	0	0	0	0	147,285	(100)
8.	141206	Struct and Improv Trans Dist Pit	461	0	0	0	0	0	0	0	0	0	461	0
9.	141220	Struct and Improv Office	26,735	60,836	(1,910)	1,910	0	(1,756)	0	0	0	0	85,815	153
10.	141223	Wells and Springs	518,778	0	(7,642)	7,642	3,080	0	(11,344)	0	0	0	510,515	(621)
11.	141225	Supply Mains	8,005	0	3,062	(3,062)	2,990	0	0	0	0	0	10,995	(91)
12.	141227	Electric Pump Equip Src Pump	53,376	46	10,187	(10,187)	9,883	0	0	0	0	0	63,306	(304)
13.	141228	Electric Pump Equip WTP	385,584	0	15,602	(15,602)	14,631	0	0	0	0	0	400,215	(971)
14.	141229	Electric Pump Equip Trans Dist	63,012	82	295	(295)	0	0	0	0	0	0	63,093	(295)
15.	141230	Water Treatment Equipment	146,770	0	6,299	(6,299)	5,926	0	0	0	0	0	152,696	(373)
16.	141231	Dist Resv and Standpipes	901,355	4,949	23,271	(23,271)	19,519	0	0	0	0	0	925,823	(3,752)
17.	141232	Trans and Distr Mains	1,892,092	16,540	10,660	(10,660)	7,951	0	0	0	0	0	1,916,583	(2,709)
18.	141233	Service Lines	842,783	457	37,710	(37,710)	31,291	0	0	0	0	0	874,530	(6,419)
19.	141234	Meters	188,359	397	9,950	(9,950)	8,874	0	0	0	0	0	197,630	(1,075)
20.	141235	Meter Installations	179,596	0	7,272	(7,272)	6,643	0	0	0	0	0	186,239	(629)
21.	141236	Hydrants	185,968	18	93,502	(93,502)	92,989	0	0	0	0	0	278,975	(512)
22.	141237	Backflow Prevention Devices	151	0	3	(3)	0	0	0	0	0	0	151	(3)
23.	141299	Utility Plant Clearing	0	0	(0)	0	0	0	0	0	0	0	0	0
24.	141303	Office Furniture	4,185	42,577	(1,303)	1,303	55	(1,248)	0	0	0	0	45,570	111
25.	141305	Stores Equipment	349	27	1	(1)	0	(1)	0	0	0	0	375	(2)
26.	141306	Lab Equipment	14,469	0	97	(97)	71	0	0	0	0	0	14,540	(26)
27.	141308	Tool Shop Equipment	102,393	836	113	(113)	0	(11)	0	0	0	0	103,219	(124)
28.	141309	Power Operated Equipment	11,291	354	2,089	(2,089)	2,000	0	0	0	0	0	13,645	(89)
29.	141310	Communications Equipment	75,413	4,975	3,027	(3,027)	2,657	(182)	0	0	0	0	82,864	(551)
30.	141311	Misc Equipment	389	0	146	(146)	139	0	0	0	0	0	528	(8)
31.	141401	Vehicles	0	222,410	(3,910)	3,910	0	(26)	0	0	0	0	222,385	3,885
32.	141501	Computer Hardware	0	97	(4)	4	0	(4)	0	0	0	0	93	1
33.	141502	Desktop/Laptop Computers	0	2,181	5,533	(5,533)	0	(82)	0	0	0	0	2,099	(5,614)
34.	141503	Mainframe Computers	0	18,407	(678)	678	0	(552)	0	0	0	0	17,855	127
35.	141504	Mini Comp Wtr	1,687	176,361	(4,206)	4,206	0	(5,161)	0	0	0	0	172,887	(955)
36.	141601	Computer Software	0	14,365	1,047	(1,047)	0	(537)	0	0	0	0	13,828	(1,585)
37.	141602	Comp Systems	0	439,500	(20,069)	20,069	0	(16,431)	0	0	0	0	423,069	3,638
38.	141603	Micro Systems	0	9,062	(350)	350	0	(285)	0	0	0	0	8,776	65
39.	141699	Computer Clearing	0	0	0	(0)	0	0	0	0	0	0	0	(0)
40.	141221	Collecting Reservoirs	0	0	0	0	0	0	0	0	0	0	0	0
41.	141269	Other and Misc Equip WTP	0	0	0	0	0	0	0	0	0	0	0	0
42.	141399	Building and Equipment Clearing	0	0	0	0	0	0	0	0	0	0	0	0
43.	Total plant in service (Sum of L1 thru L42)		6,085,515	1,070,951	203,682	(203,682)	221,569	0	(26,274)	(11,344)	0	0	7,340,417	(19,730)

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Dec 05 2022

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
CALCULATION OF PLANT IN SERVICE
For The Base Year Ended March 31, 2022

Public Staff WSP Exhibit 1
Schedule 2-1(a)(1)
Page 4 of 4

BF/FH SEWER OPERATIONS

Line

		Amount per														Total PS
No.	No.	Item	Updates Direct	Allocated	Company Proforma	Remove Company Proforma	Actual PTY additions	PS Adj/ Engineering	ERC adjustment	Florence Proceeds	AFUDC adjustments	Reclassification	Amount per PS	Adi		
			(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)		
1.	141201	Organization	14,682	0	0	0	0	0	0	0	0	0	14,682	0		
2.	141202	Franchises	41,938	0	0	0	0	0	0	0	0	0	41,938	0		
3.	141203	Struct and Improv General Plant	287,214	0	(18,722)	18,722	247	0	(20,368)	0	0	0	267,093	(1,398)		
4.	141207	Struct and Improv Collect Plant	150	0	3	(3)	0	0	0	0	0	0	150	(3)		
5.	141208	Struct and Improv Pump Plant	2,159,370	185	(468,230)	468,230	2,227	0	(470,662)	(80)	0	0	1,691,039	(286)		
6.	141209	Struct and Improv Treatment Plant	1,837,412	0	1,018	(1,018)	142	0	0	0	0	0	1,837,554	(875)		
7.	141211	Struct and Improv Reclaim Wtr Dist	2,477	0	0	0	0	0	0	0	0	0	2,477	0		
8.	141220	Struct and Improv Office	71,239	62,096	3,099	(3,099)	5,000	(1,798)	0	0	0	0	136,538	104		
9.	141227	Electric Pump Equip Src Pump	0	0	(2,538)	2,538	0	0	(2,538)	0	0	0	(2,538)	0		
10.	141230	Water Treatment Equipment	956,340	0	(11,588)	11,588	(11,588)	0	0	0	0	0	944,752	0		
11.	141231	Dist Resv and Standpipes	0	5,051	(4)	4	0	0	0	0	0	0	5,051	4		
12.	141232	Trans and Distr Mains	0	16,702	(15)	15	0	0	0	0	0	0	16,702	15		
13.	141239	Power Gen Equip Pump P t	68,264	0	45,039	(45,039)	44,211	0	0	0	0	0	112,475	(828)		
14.	141241	Sewer Force Main	227,006	0	914	(914)	0	0	0	0	0	0	227,006	(914)		
15.	141242	Sewer Gravity Main	5,330,923	(0)	4,986	(4,986)	983	0	0	0	0	0	5,331,906	(4,003)		
16.	141243	Manholes	49,843	0	3,860	(3,860)	3,269	0	0	0	0	0	53,112	(592)		
17.	141244	Special Collection Structures	775	0	0	0	0	0	0	0	0	0	775	0		
18.	141245	Service to Customers	272,829	0	75,040	(75,040)	66,387	0	0	0	0	0	339,216	(8,653)		
19.	141246	Flow Measure Devices	17,806	0	12	(12)	0	0	0	0	0	0	17,806	(12)		
20.	141249	Pumping Equip Pump P t	817,088	0	10,682	(10,682)	9,664	0	0	0	0	0	826,753	(1,018)		
21.	141250	Pumping Equip Reclaim WTP	78,717	0	18,436	(18,436)	17,502	0	0	0	0	0	96,219	(933)		
22.	141252	Treat/Disp Equip Lagoon	56	0	0	0	0	0	0	0	0	0	56	0		
23.	141253	Treat/Disp Equip Trt P t	2,828,541	0	3,840	(3,840)	1,820	0	0	0	0	0	2,830,361	(2,020)		
24.	141255	Plant Sewers Treatment P t	398,182	0	(4,135)	4,135	4,124	0	(8,856)	0	0	0	393,451	(597)		
25.	141257	Outfall Lines	37,906	0	38,028	(38,028)	36,794	0	0	0	0	0	74,700	(1,235)		
26.	141263	Reuse Dist Reservoirs	2,763	0	0	0	0	0	0	0	0	0	2,763	0		
27.	141264	Reuse Transmission and Dist	2,491	0	27	(27)	0	0	0	0	0	0	2,491	(27)		
28.	141271	Other Tangible Plant	0	0	79,334	(79,334)	79,334	0	0	0	0	0	79,334	0		
29.	141272	Other Plant Collection	(224)	0	0	0	0	0	0	0	0	0	(224)	0		
30.	141273	Other Plant Pump	3,442	0	12	(12)	0	0	0	0	0	0	3,442	(12)		
31.	141275	Other Plant Reclaim Water Trt	8,372	0	4,387	(4,387)	4,306	0	0	0	0	0	12,677	(81)		
32.	141299	Util ty Plant Clearing	0	0	(0)	0	(0)	0	0	0	0	0	(0)	0		
33.	141303	Office Furniture	1,593	43,452	(1,353)	1,353	0	(1,277)	0	0	0	0	43,768	76		
34.	141305	Stores Equipment	2,799	28	(1)	1	0	(1)	0	0	0	0	2,826	(1)		
35.	141306	Lab Equipment	6,227	0	509	(509)	507	0	0	0	0	0	6,734	(2)		
36.	141308	Tool Shop Equipment	19,929	751	1,501	(1,501)	1,428	(11)	0	0	0	0	22,097	(83)		
37.	141309	Power Operated Equipment	53,242	362	769	(769)	689	0	0	0	0	0	54,293	(81)		
38.	141310	Communications Equipment	32,790	5,064	26,258	(26,258)	25,754	(186)	0	0	0	0	63,423	(689)		
39.	141311	Misc Equipment	33,788	0	35,877	(35,877)	35,209	0	0	0	0	0	68,996	(668)		
40.	141399	Building and Equipment Clearing	0	0	0	(0)	0	0	0	0	0	0	0	0		
41.	141401	Vehicles	0	227,659	(4,002)	4,002	0	(26)	0	0	0	0	227,632	3,975		
42.	141501	Computer Hardware	0	99	(5)	5	0	(4)	0	0	0	0	95	1		
43.	141502	Desktop/Laptop Computers	0	2,232	5,663	(5,663)	0	(83)	0	0	0	0	2,149	(5,747)		
44.	141503	Mainframe Computers	0	18,841	(695)	695	0	(595)	0	0	0	0	18,276	130		
45.	141504	Mini Comp Wtr	0	182,250	(4,305)	4,305	0	(5,283)	0	0	0	0	176,967	(978)		
46.	141601	Computer Software	0	14,705	1,072	(1,072)	0	(550)	0	0	0	0	14,156	(1,621)		
47.	141602	Comp Systems	0	449,872	(20,542)	20,542	0	(16,819)	0	0	0	0	433,053	3,724		
48.	141603	Micro Systems	0	9,276	(359)	359	0	(292)	0	0	0	0	8,984	67		
49.	141699	Computer Clearing	0	0	0	(0)	0	0	0	0	0	0	0	(0)		
50.	141251	Pumping Equip Rd Wtr Dist	0	0	0	0	0	0	0	0	0	0	0	0		
51.	141254	Treat/Disp Equip Rd Wtr Dist	0	0	0	0	0	0	0	0	0	0	0	0		
52.	Total plant in service (Sum of L1 thru L51)			15,665,970	1,038,624	(176,127)	176,127	328,009	0	(26,894)	(502,424)	(80)	0	16,503,204	(25,264)	

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Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
CALCULATION OF PLANT IN SERVICE
For The Rate Year 1 Ended March 31, 2024

Public Staff WSIP Exhibit 1
Schedule 2-1(a)(1)
Page 1 of 4

CWSNC WATER OPERATIONS

Line	New Account		Amount per PS	PS Adjustment /	Amount per	RY1	Depreciation	RY1 additions	Total PIS for AD
No.	No.	Item	base case	Engineering	PS RY1	additions	rate	book	per PS
			(a)	(b)	(c)	(d)	(e)	(f)	(g)
1.	141201	Organization	484,577	0	484,577	0	2.50%	-	12,114
2.	141202	Franchises	229,516	0	229,516	0	2.50%	-	5,738
3.	141102	Land & land rights pump	50,818	0	50,818	0	0.00%	-	0
4.	141501	Computer Hardware	673	0	673	0	0.00%	-	0
5.	141502	Desktop/Laptop Computers	15,181	0	15,181	0	0.00%	-	0
6.	141101	Land & land rights gen. plt.	868,420	0	868,420	0	0.00%	-	0
7.	141204	Struct & improv. src. supply	4,505,898	390,111	4,896,009	390,111	2.00%	7,802.22	97,920
8.	141205	Struct & improv. wtr. trt. plt.	1,637,901	53,853	1,691,754	53,853	2.00%	1,077.06	33,835
9.	141206	Struct & improv. trans. dist.	294,004	7,474	301,477	7,474	2.00%	149.48	6,030
10.	141203	Struct & improv. gen. plt.	424,761	15,826	440,587	15,826	2.00%	316.51	8,812
11.	141221	Collecting reservoirs	732,382	0	732,382	0	2.00%	-	14,648
12.	141223	Wells & springs	14,840,443	939,763	15,780,207	939,763	2.00%	18,795.26	315,604
13.	141224	Infiltration gallery	45,185	0	45,185	0	2.50%	-	1,130
14.	141225	Supply mains	854,054	98,437	952,491	98,437	1.00%	984.37	9,525
15.	141226	Power generation equip.	167,421	688	168,108	688	10.00%	68.78	16,811
16.	141227	Electric pump equip. src. plt.	3,025,195	58,765	3,083,960	58,765	14.29%	8,397.49	440,698
17.	141228	Electric pump equip. wtp.	9,365,894	424,280	9,790,174	424,280	3.33%	14,128.54	326,013
18.	141229	Electric pump equip. trans.	4,788,370	110,530	4,898,900	110,530	14.29%	15,794.69	700,053
19.	141230	Water treatment equip.	5,865,660	798,959	6,664,620	798,959	2.50%	19,973.99	166,615
20.	141231	Dist. resv. & standpipes	8,927,298	149,297	9,076,595	149,297	2.00%	2,985.94	181,532
21.	141232	Trans. & distr. mains	36,091,486	3,284,627	39,376,112	3,284,627	1.00%	32,846.27	393,761
22.	141233	Service lines	15,097,388	0	15,097,388	0	2.00%	-	301,948
23.	141234	Meters	6,550,372	2,851,037	9,401,409	2,851,037	3.33%	94,939.53	313,067
24.	141235	Meter installations	2,096,397	0	2,096,397	0	3.33%	-	69,810
25.	141236	Hydrants	1,453,761	51,631	1,505,392	51,631	2.50%	1,290.77	37,635
26.	141237	Backflow prevention devic.	61,347	1,552	62,898	1,552	10.00%	155.17	6,290
27.	141268	Other plt. & misc. equip. src. su.	260	0	260	0	2.50%	-	7
28.	141269	Other plt. & misc. equip. wtp.	24,969	0	24,969	0	2.50%	-	624
29.	141220	Office struct & improv.	582,507	225,000	807,507	225,000	10.00%	22,500.00	80,751
30.	141303	Office furn. & equip.	579,532	0	579,532	0	10.00%	-	57,953
31.	141305	Stores equipment	16,258	2,811	19,069	2,811	3.33%	93.62	635
32.	141308	Tool shop & misc. equip.	1,089,999	6,254	1,096,253	6,254	5.00%	312.71	54,813
33.	141306	Laboratory equipment	131,819	1,471	133,289	1,471	10.00%	147.09	13,329
34.	141309	Power operated equip.	374,333	5,854	380,187	5,854	10.00%	585.37	38,019
35.	141310	Communication equip.	326,583	994,526	1,321,109	994,526	10.00%	99,452.59	132,111
36.	141311	Misc. equipment	215,202	5,712	220,913	5,712	3.33%	190.20	7,356
37.	141278	Water plant allocated	207,809	0	207,809	0	6.67%	-	13,861
38.	141271	Other tangible plt. water	48,727	0	48,727	0	2.50%	-	1,218
39.	141248	Receiving Wells	176,603	0	176,603	0	2.00%	-	3,532
40.	141401	Transportation equip.	2,360,014	0	2,360,014	0	20.00%	-	472,003
41.	141503	Mainframe computer - wtr	129,260	0	129,260	0	0.00%	-	0
42.	141504	Mini computer - wtr	1,261,915	0	1,261,915	0	0.00%	-	0
43.	141602	Comp. system cost - wtr	3,187,131	0	3,187,131	0	0.00%	-	0
44.	141603	Micro system cost - wtr	63,521	0	63,521	0	0.00%	-	0
45.	141255	Plant Sewers Treatment Plt	0	0	0	0	2.50%	-	0
46.	141299	Utility Plant Clearing	(0)	0	(0)	0	0.00%	-	0
47.	141699	Computer Clearing	0	0	0	0	0.00%	-	0
48.	141601	Computer Software	99,996	0	99,996	0	0.00%	-	0
49.	141103	Land and Rights Water	357,109	0	357,109	0	0.00%	-	0
50.	141104	Land and Rights Trans	18,896	0	18,896	0	0.00%	-	0
51.	141293	Plant Held for Future Use	(382,146)	0	(382,146)	0	0.00%	-	0
52.	141399	Building and Equipment Clearing	0	0	0	0	0.00%	-	0
53. Total plant in service (Sum of L1 thru L52)			129,344,696	10,478,457	139,823,153	10,478,457		342,988	4,335,798

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CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
CALCULATION OF PLANT IN SERVICE
For The Rate Year 1 Ended March 31, 2024

Public Staff WSIP Exhibit 1
Schedule 2-1(a)(1)
Page 2 of 4

CWSNC SEWER OPERATIONS

Line							RY1 additions book	Total PIS for AD per PS
No.	No.	Item	Amount per PS base case	PS Adjustment / Engineering	Amount per PS RY1	RY1 additions	Depreciation rate	Depreciation
			(a)	(b)	(c)	(d)	(e)	(f)
1.	141201	Organization	883,492	0	883,492	0	2.50%	-
2.	141202	Franchises intang. plt.	127,476	0	127,476	0	2.50%	-
3.	141107	Land & land rights trtmnt plt	39,167	0	39,167	0	0.00%	-
4.	141108	Land & land rights reclaim.	1,150	0	1,150	0	0.00%	-
5.	141101	Land and Rights General	0	0	0	0	0.00%	-
6.	141207	Struct/improv. coll. plt.	108,582	4,698	113,280	4,698	2.00%	93.96
7.	141208	Struct/improv. pump plt. ls.	11,437,999	177,137	11,615,136	177,137	2.00%	3,542.73
8.	141209	Struct/improv. treat. plt.	20,068,597	10,469,325	30,537,922	10,469,325	2.50%	261,733.13
9.	141210	Struct/improv. reclaim. wtp.	3,271	0	3,271	0	2.50%	-
10.	141211	Struct/improv. reclaim. wtr.	180,481	218	180,699	218	2.50%	5.46
11.	141203	Struct/improv. gen. plt.	1,707,245	28,601	1,735,846	28,601	2.00%	572.02
12.	141238	Power gen. equip. coll. plt.	107,623	0	107,623	0	10.00%	-
13.	141239	Power gen. equip. pump plt.	53,341	135	53,476	135	10.00%	13.51
14.	141240	Power gen. equip. treat. plt.	313,217	7,522	320,738	7,522	10.00%	752.16
15.	141241	Sewer force main/serv. lin.	4,466,350	53,345	4,519,695	53,345	1.33%	709.49
16.	141242	Sewer gravity main	19,336,441	3,241,919	22,578,360	3,241,919	1.00%	32,419.19
17.	141243	Manholes	1,751,178	0	1,751,178	0	1.00%	-
18.	141244	Special coll. structures	7,032	281	7,313	281	2.00%	5.62
19.	141245	Services to customers	2,249,446	0	2,249,446	0	1.33%	-
20.	141246	Flow measure devices	145,734	6,869	152,603	6,869	4.00%	274.76
21.	141247	Flow measure install	1,106	20	1,126	20	4.00%	0.80
22.	141248	Receiving wells	233,985	35,970	269,954	35,970	2.00%	719.39
23.	141249	Pumping equipment pump plt.	5,142,732	175,804	5,318,536	175,804	14.29%	25,122.32
24.	141250	Pumping equipment reclaim.	39,650	621	40,271	621	14.29%	88.79
25.	141251	Pumping equipment rcl. wtr.	83,456	3,964	87,420	3,964	14.29%	566.50
26.	141252	Treat./disp. equip. lagoon	597,738	5,641	603,379	5,641	2.50%	141.02
27.	141253	Treat./disp. equip. trt. plt.	19,565,824	1,805,033	21,370,857	1,805,033	2.50%	45,125.82
28.	141254	Treat./disp. equip. rct. wtp.	29,387	4,102	33,489	4,102	2.50%	102.56
29.	141255	Plant sewers treat. plt.	17,985,978	55,197	18,041,175	55,197	2.50%	1,379.92
30.	141256	Plant sewers reclaim wtp.	8,065	187	8,252	187	2.50%	4.67
31.	141257	Outfall lines	656,343	35,998	692,341	35,998	1.00%	359.98
32.	141271	Other plt. tangible	14,761	2,585	17,346	2,585	2.50%	64.61
33.	141272	Other plt. collection	22,253	86	22,339	86	2.00%	1.72
34.	141273	Other plt. pump	474,026	1,300	475,326	1,300	2.50%	32.51
35.	141274	Other plt. treatment	340,069	16,146	356,215	16,146	2.50%	403.64
36.	141275	Other plt. reclaim wtr. trt.	650	0	650	0	2.50%	-
37.	141276	Other plt. reclaim wtr. dis.	460	0	460	0	2.50%	-
38.	141220	Office struct & improv.	327,965	0	327,965	0	10.00%	-
39.	141303	Office furn. & equip.	330,403	0	330,403	0	10.00%	-
40.	141305	Stores equipment	8,224	612	8,836	612	3.33%	20.37
41.	141308	Tool shop & misc. equip.	571,703	3,723	575,426	3,723	5.00%	186.16
42.	141306	Laboratory equipment	197,804	3,213	201,017	3,213	10.00%	321.33
43.	141309	Power operated equip.	479,682	18,912	498,595	18,912	10.00%	1,891.24
44.	141310	Communication equip.	196,817	5,129	201,945	5,129	10.00%	512.88
45.	141311	Misc equip. sewer	71,331	5,891	77,222	5,891	3.33%	196.16
46.	141278	Sewer plant allocated	526,952	0	526,952	0	6.67%	-
47.	0	Other tangible plt. sewer	0	0	0	0	2.50%	-
48.	141263	Reuse dist. reservoirs	3,507	26	3,533	26	2.00%	0.53
49.	141264	Reuse transmission & dist.	121,119	8,705	129,825	8,705	2.00%	174.10
50.	141401	Transportation equip.	1,407,999	0	1,407,999	0	20.00%	-
51.	141502	Desktop computer - wtr	9,057	0	9,057	0	0.00%	-
52.	141503	Mainframe computer - wtr	77,118	0	77,118	0	0.00%	-
53.	141504	Mini computer - wtr	753,119	0	753,119	0	0.00%	-
54.	141602	Comp. system cost - wtr	1,901,461	0	1,901,461	0	0.00%	-
55.	141603	Micro system cost - wtr	37,897	0	37,897	0	0.00%	-
56.	141501	Computer Hardware	401	0	401	0	0.00%	-
57.	141601	Computer Software	59,659	0	59,659	0	0.00%	-
58.	141699	Computer Clearing	0	0	0	0	0.00%	-
59.	141231	Dist Resv and Standpipes	20,648	0	20,648	0	2.00%	-
60.	141232	Trans and Distr Mains	68,271	0	68,271	0	1.00%	-
61.	141299	Utility Plant Clearing	(0)	0	(0)	0	0.00%	-
62.	141399	Building and Equipment Clearing	0	0	0	0	0.00%	-
63.	141233	Service Lines	(120)	0	(120)	0	2.00%	-
64.	141293	Plt. held for future use	(227,990)	0	(227,990)	0	0.00%	-
66.	141205		0	0	0	0	2.00%	-
67.	141230		0	0	0	0	2.50%	-
68.	113101		0	0	0	0	0.00%	-
69.	141226		298,745	0	298,745	0	10.00%	-
		Pro forma plant additions	0	0	0	0	2.50%	-
							0.00%	-
70. Total plant in service (Sum of L1 thru L69)			115,426,078	16,178,915	131,604,993	16,178,915		377,539
								3,802,137

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Dec 05 2022

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
CALCULATION OF PLANT IN SERVICE
For The Rate Year 1 Ended March 31, 2024

Public Staff WSIP Exhibit 1
Schedule 2-1(a)(1)
Page 3 of 4

BF/FH WATER OPERATIONS

Line			Amount per PS	PS Adjustment /	Amount per	RY1	Depreciation	RY1 additions	Total PIS for AD
No.	No.	Item	base case	Engineering	PS RY1	additions	rate	book	per PS
			(a)	(b)	(c)	(d)	(e)	(f)	(g)
1.	141101	Land and Rights General	13,990	0	13,990	0	0.00%	-	0
2.	141102	Land and Rights Pump	21,025	0	21,025	0	0.00%	-	0
3.	141201	Organization	100,866	0	100,866	0	2.50%	-	2,522
4.	141202	Franchises	51,240	0	51,240	0	2.50%	-	1,281
5.	141203	Struct and Improv General Plant	2,244	368	2,611	368	2.00%	7.35	52
6.	141204	Struct and Improv Service Supplies	215,009	11,590	226,600	11,590	2.00%	231.80	4,532
7.	141205	Struct and Improv Water Treat Plt	147,285	1,145	148,430	1,145	2.00%	22.91	2,969
8.	141206	Struct and Improv Trans Dist Plt	461	0	461	0	2.00%	-	9
9.	141220	Struct and Improv Office	85,815	0	85,815	0	10.00%	-	8,582
10.	141223	Wells and Springs	510,515	8,003	518,518	8,003	2.00%	160.06	10,370
11.	141225	Supply Mains	10,995	1,118	12,113	1,118	1.00%	11.18	121
12.	141227	Electric Pump Equip Src Pump	63,305	4,058	67,362	4,058	14.29%	579.87	9,626
13.	141228	Electric Pump Equip WTP	400,215	10,750	410,965	10,750	3.33%	357.98	13,685
14.	141229	Electric Pump Equip Trans Dist	63,093	3,853	66,946	3,853	14.29%	550.61	9,567
15.	141230	Water Treatment Equipment	152,696	4,699	157,395	4,699	2.50%	117.47	3,935
16.	141231	Dist Resv and Standpipes	925,823	1,802,848	2,728,671	1,802,848	2.00%	36,056.96	54,573
17.	141232	Trans and Distr Mains	1,916,583	198,496	2,115,079	198,496	1.00%	1,984.96	21,151
18.	141233	Service Lines	874,530	0	874,530	0	2.00%	-	17,491
19.	141234	Meters	197,630	399,046	596,676	399,046	3.33%	13,288.22	19,869
20.	141235	Meter Installations	186,239	0	186,239	0	3.33%	-	6,202
21.	141236	Hydrants	278,975	3,728	282,702	3,728	2.50%	93.19	7,068
22.	141237	Backflow Prevention Devices	151	41	193	41	10.00%	4.14	19
23.	141299	Utility Plant Clearing	0	0	0	0	0.00%	-	0
24.	141303	Office Furniture	45,570	0	45,570	0	10.00%	-	4,557
25.	141305	Stores Equipment	375	25	400	25	3.33%	0.83	13
26.	141306	Lab Equipment	14,540	343	14,883	343	10.00%	34.35	1,488
27.	141308	Tool Shop Equipment	103,219	652	103,870	652	5.00%	32.59	5,194
28.	141309	Power Operated Equipment	13,645	947	14,592	947	10.00%	94.71	1,459
29.	141310	Communications Equipment	82,864	6,056	88,920	6,056	10.00%	605.58	8,892
30.	141311	Misc Equipment	528	92	620	92	3.33%	3.05	21
31.	141401	Vehicles	222,385	0	222,385	0	20.00%	-	44,477
32.	141501	Computer Hardware	93	0	93	0	16.67%	-	16
33.	141502	Desktop/Laptop Computers	2,099	0	2,099	0	16.67%	-	350
34.	141503	Mainframe Computers	17,855	0	17,855	0	0.00%	-	0
35.	141504	Mini Comp Wtr	172,887	0	172,887	0	0.00%	-	0
36.	141601	Computer Software	13,828	0	13,828	0	0.00%	-	0
37.	141602	Comp Systems	423,069	0	423,069	0	0.00%	-	0
38.	141603	Micro Systems	8,776	0	8,776	0	0.00%	-	0
39.	141699	Computer Clearing	0	0	0	0	0.00%	-	0
40.	141221	Collecting Reservoirs	0	0	0	0	2.00%	-	0
41.	141269	Other and Misc Equip WTP	0	0	0	0	2.50%	-	0
42.	141399	Building and Equipment Clearing	0	0	0	0	0.00%	-	0
43.	Total plant in service (Sum of L1 thru L42)		7,340,417	2,457,859	9,798,275	2,457,859		54,238	260,089

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CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
CALCULATION OF PLANT IN SERVICE
For The Rate Year 1 Ended March 31, 2024

Public Staff WSIP Exhibit 1
Schedule 2-1(a)(1)
Page 4 of 4

BF/FH SEWER OPERATIONS

Line			Amount per PS	PS Adjustment /	Amount per	RY1	Depreciation	RY1 additions	Total PIS for AD
No.	No.	Item	base case	Engineering	PS RY1	additions	rate	book	per PS
			(a)	(b)	(c)	(d)	(e)	(f)	(g)
1.	141201	Organization	14,682	\$ -	14,682	0	2.50%	-	367
2.	141202	Franchises	41,938	\$ -	41,938	0	2.50%	-	1,048
3.	141203	Struct and Improv General Plant	267,093	\$ 18,300	285,393	18,300	2.00%	366.01	5,708
4.	141207	Struct and Improv Collect Plant	150	\$ -	150	0	0.00%	-	0
5.	141208	Struct and Improv Pump Plant	1,691,039	\$ 2,622	1,693,661	2,622	2.00%	52.44	33,873
6.	141209	Struct and Improv Treatment Plant	1,837,554	\$ 10,802	1,848,356	10,802	2.50%	270.05	46,209
7.	141211	Struct and Improv Reclaim Wtr Dist	2,477	\$ -	2,477	0	2.50%	-	62
8.	141220	Struct and Improv Office	136,538	\$ -	136,538	0	10.00%	-	13,654
9.	141227	Electric Pump Equip Src Pump	(2,538)	\$ -	(2,538)	0	0.00%	-	0
10.	141230	Water Treatment Equipment	944,752	\$ -	944,752	0	0.00%	-	0
11.	141231	Dist Resv and Standpipes	5,051	\$ -	5,051	0	2.00%	-	101
12.	141232	Trans and Dist Mains	16,702	\$ -	16,702	0	1.00%	-	167
13.	141239	Power Gen Equip Pump Plt	112,475	\$ 119	112,594	119	10.00%	11.92	11,259
14.	141241	Sewer Force Main	227,006	\$ 10,061	237,067	10,061	1.33%	133.81	3,153
15.	141242	Sewer Gravity Main	5,331,906	\$ 903,019	6,234,925	903,019	1.00%	9,030.19	62,349
16.	141243	Manholes	53,112	\$ -	53,112	0	1.00%	-	531
17.	141244	Special Collection Structures	775	\$ -	775	0	2.00%	-	16
18.	141245	Service to Customers	339,216	\$ -	339,216	0	1.33%	-	4,512
19.	141246	Flow Measure Devices	17,806	\$ 166	17,972	166	4.00%	6.64	719
20.	141249	Pumping Equip Pump Plt	826,753	\$ 10,573	837,326	10,573	14.29%	1,510.91	119,654
21.	141250	Pumping Equip Reclaim WTP	96,219	\$ 9,041	105,260	9,041	14.29%	1,291.92	15,042
22.	141252	Treat/Disp Equip Lagoon	56	\$ -	56	0	2.50%	-	1
23.	141253	Treat/Disp Equip Trt Plt	2,830,361	\$ 143,792	2,974,153	143,792	2.50%	3,594.80	74,354
24.	141255	Plant Sewers Treatment Plt	393,451	\$ 6,881	400,332	6,881	2.50%	172.02	10,008
25.	141257	Outfall Lines	74,700	\$ 9,613	84,313	9,613	1.00%	96.13	843
26.	141263	Reuse Dist Reservoirs	2,763	\$ -	2,763	0	2.00%	-	55
27.	141264	Reuse Transmission and Dist	2,491	\$ 354	2,845	354	2.00%	7.07	57
28.	141271	Other Tangible Plant	79,334	\$ -	79,334	0	2.50%	-	1,983
29.	141272	Other Plant Collection	(224)	\$ -	(224)	0	2.00%	-	(4)
30.	141273	Other Plant Pump	3,442	\$ -	3,442	0	2.50%	-	86
31.	141275	Other Plant Reclaim Water Trt	12,677	\$ 834	13,511	834	2.50%	20.84	338
32.	141299	Utility Plant Clearing	(0)	\$ -	(0)	0	0.00%	-	0
33.	141303	Office Furniture	43,768	\$ -	43,768	0	10.00%	-	4,377
34.	141305	Stores Equipment	2,826	\$ 10	2,836	10	3.33%	0.34	94
35.	141306	Lab Equipment	6,734	\$ -	6,734	0	10.00%	-	673
36.	141308	Tool Shop Equipment	22,097	\$ 590	22,686	590	5.00%	29.49	1,134
37.	141309	Power Operated Equipment	54,293	\$ 974	55,267	974	10.00%	97.43	5,527
38.	141310	Communications Equipment	63,423	\$ 7,261	70,684	7,261	10.00%	726.12	7,068
39.	141311	Misc Equipment	68,996	\$ 2,076	71,073	2,076	3.33%	69.14	2,367
40.	141399	Building and Equipment Clearing	0	\$ -	0	0	0.00%	-	0
41.	141401	Vehicles	227,632	\$ -	227,632	0	0.00%	-	0
42.	141501	Computer Hardware	95	\$ -	95	0	16.67%	-	16
43.	141502	Desktop/Laptop Computers	2,149	\$ -	2,149	0	0.00%	-	0
44.	141503	Mainframe Computers	18,276	\$ -	18,276	0	0.00%	-	0
45.	141504	Mini Comp Wtr	176,967	\$ -	176,967	0	0.00%	-	0
46.	141601	Computer Software	14,156	\$ -	14,156	0	0.00%	-	0
47.	141602	Comp Systems	433,053	\$ -	433,053	0	0.00%	-	0
48.	141603	Micro Systems	8,984	\$ -	8,984	0	0.00%	-	0
49.	141699	Computer Clearing	0	\$ -	0	0	0.00%	-	0
50.	141251	Pumping Equip Rcl Wtr Dist	0	\$ -	0	0	14.29%	-	0
51.	141254	Treat/Disp Equip Rclm Wtr	0	\$ -	0	0	2.50%	-	0
52.	Total plant in service (Sum of L1 thru L51)		16,503,204	1,137,089	17,640,293	1,137,089		17,487	427,402

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Dec 05 2022

Carolina Water Service, Inc. of North Carolina
W - 354, Sub 400
CALCULATION OF PLANT IN SERVICE
For The Rate Year 2 Ended March 31, 2025

Public Staff WSIP Exhibit 1
Schedule 2-1(a)(2)
Page 1 of 4

CWSNC WATER OPERATIONS

Line	New Account		Amount per PS	PS Adjustment /	Amount per	RY1	Depreciation	RY2 additions	Total PIS for AD
			base case	Engineering	PS RY1	additions	rate	book	per PS
No.	No.	Item	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1.	141201	Organization	484,577	0	484,577	0	2.50%	-	12,114
2.	141202	Franchises	229,516	0	229,516	0	2.50%	-	5,738
3.	141102	Land & land rights pump	50,818	0	50,818	0	0.00%	-	0
4.	141501	Computer Hardware	673	0	673	0	0.00%	-	0
5.	141502	Desktop/Laptop Computers	15,181	0	15,181	0	0.00%	-	0
6.	141101	Land & land rights gen. plt.	868,420	0	868,420	0	0.00%	-	0
7.	141204	Struct & improv. src. supply	4,896,009	981,478	5,877,487	981,478	2.00%	19,629.55	117,550
8.	141205	Struct & improv. wtr. trt. plt.	1,691,754	53,853	1,745,607	53,853	2.00%	1,077.06	34,912
9.	141206	Struct & improv. trans. dist.	301,477	7,474	308,951	7,474	2.00%	149.48	6,179
10.	141203	Struct & improv. gen. plt.	440,587	15,826	456,412	15,826	2.00%	316.51	9,128
11.	141221	Collecting reservoirs	732,382	0	732,382	0	2.00%	-	14,648
12.	141223	Wells & springs	15,780,207	895,445	16,675,652	895,445	2.00%	17,908.90	333,513
13.	141224	Infiltration gallery	45,185	0	45,185	0	2.50%	-	1,130
14.	141225	Supply mains	952,491	98,437	1,050,929	98,437	1.00%	984.37	10,509
15.	141226	Power generation equip.	168,108	688	168,796	688	10.00%	68.78	16,880
16.	141227	Electric pump equip. src. plt.	3,083,960	58,765	3,142,724	58,765	14.29%	8,397.49	449,095
17.	141228	Electric pump equip. wtp.	9,790,174	274,091	10,064,265	274,091	3.33%	9,127.23	335,140
18.	141229	Electric pump equip. trans.	4,898,900	110,530	5,009,429	110,530	14.29%	15,794.69	715,847
19.	141230	Water treatment equip.	6,664,620	174,778	6,839,398	174,778	2.50%	4,369.46	170,985
20.	141231	Dist. resv. & standpipes	9,076,595	135,862	9,212,456	135,862	2.00%	2,717.23	184,249
21.	141232	Trans. & distr. mains	39,376,112	2,829,781	42,205,894	2,829,781	1.00%	28,297.81	422,059
22.	141233	Service lines	15,097,388	0	15,097,388	0	2.00%	-	301,948
23.	141234	Meters	9,401,409	2,470,500	11,871,909	2,470,500	3.33%	82,267.65	395,335
24.	141235	Meter installations	2,096,397	0	2,096,397	0	3.33%	-	69,810
25.	141236	Hydrants	1,505,392	51,631	1,557,023	51,631	2.50%	1,290.77	38,926
26.	141237	Backflow prevention devic.	62,898	1,552	64,450	1,552	10.00%	155.17	6,445
27.	141268	Other plt. & misc. equip. src. su.	260	0	260	0	2.50%	-	7
28.	141269	Other plt. & misc. equip. wtp.	24,969	0	24,969	0	2.50%	-	624
29.	141220	Office struct & improv.	807,507	0	807,507	0	10.00%	-	80,751
30.	141303	Office furn. & equip.	579,532	0	579,532	0	10.00%	-	57,953
31.	141305	Stores equipment	19,069	2,811	21,880	2,811	3.33%	93.62	729
32.	141308	Tool shop & misc. equip.	1,096,253	6,254	1,102,507	6,254	5.00%	312.71	55,125
33.	141306	Laboratory equipment	133,289	1,471	134,760	1,471	10.00%	147.09	13,476
34.	141309	Power operated equip.	380,187	5,854	386,041	5,854	10.00%	585.37	38,604
35.	141310	Communication equip.	1,321,109	48,214	1,369,323	48,214	10.00%	4,821.36	136,932
36.	141311	Misc. equipment	220,913	5,712	226,625	5,712	3.33%	190.20	7,547
37.	141278	Water plant allocated	207,809	0	207,809	0	6.67%	-	13,861
38.	141271	Other tangible plt. water	48,727	0	48,727	0	2.50%	-	1,218
39.	141248	Receiving Wells	176,603	0	176,603	0	2.00%	-	3,532
40.	141401	Transportation equip.	2,360,014	0	2,360,014	0	20.00%	-	472,003
41.	141503	Mainframe computer - wtr	129,260	0	129,260	0	0.00%	-	0
42.	141504	Mini computer - wtr	1,261,915	0	1,261,915	0	0.00%	-	0
43.	141602	Comp. system cost - wtr	3,187,131	0	3,187,131	0	0.00%	-	0
44.	141603	Micro system cost - wtr	63,521	0	63,521	0	0.00%	-	0
45.	141255	Plant Sewers Treatment Plt	0	0	0	0	2.50%	-	0
46.	141299	Utility Plant Clearing	(0)	0	(0)	0	0.00%	-	0
47.	141699	Computer Clearing	0	0	0	0	0.00%	-	0
48.	141601	Computer Software	99,996	0	99,996	0	0.00%	-	0
49.	141103	Land and Rights Water	357,109	0	357,109	0	0.00%	-	0
50.	141104	Land and Rights Trans	18,896	0	18,896	0	0.00%	-	0
51.	141293	Plant Held for Future Use	(382,146)	0	(382,146)	0	0.00%	-	0
52.	141399	Building and Equipment Clearing	0	0	0	0	0.00%	-	0
53.	Total plant in service (Sum of L1 thru L52)		139,823,153	8,231,005	148,054,158	8,231,005		198,702	4,534,501

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CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
CALCULATION OF PLANT IN SERVICE
For The Rate Year 2 Ended March 31, 2025

Public Staff WSIP Exhibit 1
Schedule 2-1(a)(2)
Page 2 of 4

CWSNC SEWER OPERATIONS

Line			Amount per PS		PS Adjustment /	Amount per	RY1	Depreciation	RY2 additions	Total PIS for AD
No.	No.	Item	base case	Engineering	PS RY1	additions	rate	Depreciation	book	per PS
			(a)	(b)	(c)	(d)	(e)	(f)		(g)
1.	141201	Organization	883,492	0	883,492	0	2.50%	-		22,087
2.	141202	Franchises intang. plt.	127,476	0	127,476	0	2.50%	-		3,187
3.	141107	Land & land rights trmnt plt	39,167	0	39,167	0	0.00%	-		0
4.	141108	Land & land rights reclaim.	1,150	0	1,150	0	0.00%	-		0
5.	141101	Land and Rights General	0	0	0	0	0.00%	-		0
6.	141207	Struct/improv. coll. plt.	113,280	4,698	117,978	4,698	2.00%	93.96		2,360
7.	141208	Struct/improv. pump plt. is.	11,615,136	1,974,015	13,589,151	1,974,015	2.00%	39,480.29		271,783
8.	141209	Struct/improv. treat. plt.	30,537,922	1,543,374	32,081,297	1,543,374	2.50%	38,584.36		802,032
9.	141210	Struct/improv. reclaim. wtp.	3,271	0	3,271	0	2.50%	-		82
10.	141211	Struct/improv. reclaim. wtr.	180,699	218	180,917	218	2.50%	5.46		4,523
11.	141203	Struct/improv. gen. plt.	1,735,846	28,601	1,764,447	28,601	2.00%	572.02		35,289
12.	141238	Power gen. equip. coll. plt.	107,623	0	107,623	0	10.00%	-		10,762
13.	141239	Power gen. equip. pump plt.	53,476	135	53,611	135	10.00%	13.51		5,361
14.	141240	Power gen. equip. treat. plt.	320,738	7,522	328,260	7,522	10.00%	752.16		32,826
15.	141241	Sewer force main/serv. lin.	4,519,695	53,345	4,573,041	53,345	1.33%	709.49		60,821
16.	141242	Sewer gravity main	22,578,360	0	22,578,360	0	1.00%	-		225,784
17.	141243	Manholes	1,751,178	0	1,751,178	0	1.00%	-		17,512
18.	141244	Special coll. structures	7,313	281	7,594	281	2.00%	5.62		152
19.	141245	Services to customers	2,249,446	0	2,249,446	0	1.33%	-		29,918
20.	141246	Flow measure devices	152,603	6,869	159,472	6,869	4.00%	274.76		6,379
21.	141247	Flow measure install	1,126	20	1,146	20	4.00%	0.80		46
22.	141248	Receiving wells	269,954	35,970	305,924	35,970	2.00%	719.39		6,118
23.	141249	Pumping equipment pump plt.	5,318,536	175,804	5,494,339	175,804	14.29%	25,122.32		785,141
24.	141250	Pumping equipment reclaim.	40,271	621	40,893	621	14.29%	88.79		5,844
25.	141251	Pumping equipment rcl. wtr.	87,420	3,964	91,384	3,964	14.29%	566.50		13,059
26.	141252	Treat./disp. equip. lagoon	603,379	5,641	609,020	5,641	2.50%	141.02		15,225
27.	141253	Treat./disp. equip. trt. plt.	21,370,857	816,563	22,187,419	816,563	2.50%	20,414.06		554,685
28.	141254	Treat./disp. equip. rct. wtp.	33,489	4,102	37,592	4,102	2.50%	102.56		940
29.	141255	Plant sewers treat. plt.	18,041,175	55,197	18,096,372	55,197	2.50%	1,379.92		452,409
30.	141256	Plant sewers reclaim wtp.	8,252	187	8,438	187	2.50%	4.67		211
31.	141257	Outfall lines	692,341	35,998	728,340	35,998	1.00%	359.98		7,283
32.	141271	Other plt. tangible	17,346	2,585	19,930	2,585	2.50%	64.61		498
33.	141272	Other plt. collection	22,339	86	22,425	86	2.00%	1.72		448
34.	141273	Other plt. pump	475,326	1,300	476,626	1,300	2.50%	32.51		11,916
35.	141274	Other plt. treatment	356,215	16,146	372,361	16,146	2.50%	403.64		9,309
36.	141275	Other plt. reclaim wtr. trt.	650	0	650	0	2.50%	-		16
37.	141276	Other plt. reclaim wtr. dis.	460	0	460	0	2.50%	-		11
38.	141220	Office struct & improv.	327,965	0	327,965	0	10.00%	-		32,797
39.	141303	Office furn. & equip.	330,403	0	330,403	0	10.00%	-		33,040
40.	141305	Stores equipment	8,836	612	9,447	612	3.33%	20.37		315
41.	141308	Tool shop & misc. equip.	575,426	3,723	579,149	3,723	5.00%	186.16		28,957
42.	141306	Laboratory equipment	201,017	3,213	204,231	3,213	10.00%	321.33		20,423
43.	141309	Power operated equip.	498,595	18,912	517,507	18,912	10.00%	1,891.24		51,751
44.	141310	Communication equip.	201,945	5,129	207,074	5,129	10.00%	512.88		20,707
45.	141311	Misc equip. sewer	77,222	5,891	83,112	5,891	3.33%	196.16		2,768
46.	141278	Sewer plant allocated	526,952	0	526,952	0	6.67%	-		35,148
47.	0	Other tangible plt. sewer	0	0	0	0	2.50%	-		0
48.	141263	Reuse dist. reservoirs	3,533	26	3,560	26	2.00%	0.53		71
49.	141264	Reuse transmission & dist.	129,825	8,705	138,530	8,705	2.00%	174.10		2,771
50.	141401	Transportation equip.	1,407,999	0	1,407,999	0	20.00%	-		281,600
51.	141502	Desktop computer - wtr	9,057	0	9,057	0	0.00%	-		0
52.	141503	Mainframe computer - wtr	77,118	0	77,118	0	0.00%	-		0
53.	141504	Mini computer - wtr	753,119	0	753,119	0	0.00%	-		0
54.	141602	Comp. system cost - wtr	1,901,461	0	1,901,461	0	0.00%	-		0
55.	141603	Micro system cost - wtr	37,897	0	37,897	0	0.00%	-		0
56.	141501	Computer Hardware	401	0	401	0	0.00%	-		0
57.	141601	Computer Software	59,659	0	59,659	0	0.00%	-		0
58.	141699	Computer Clearing	0	0	0	0	0.00%	-		0
59.	141231	Dist Resv and Standpipes	20,648	0	20,648	0	2.00%	-		413
60.	141232	Trans and Distr Mains	68,271	0	68,271	0	1.00%	-		683
61.	141299	Utility Plant Clearing	(0)	0	(0)	0	0.00%	-		0
62.	141399	Building and Equipment Clearing	0	0	0	0	0.00%	-		0
63.	141233	Service Lines	(120)	0	(120)	0	2.00%	-		(2)
64.	141293	Plt. held for future use	(227,990)	0	(227,990)	0	0.00%	-		0
66.	141205		0	0	0	0	2.00%	-		0
67.	141230		0	0	0	0	2.50%	-		0
68.	113101		0	0	0	0	0.00%	-		0
69.	141226		298,745	0	298,745	0	10.00%	-		29,875
		Pro forma plant additions	0	0	0	0	2.50%	-		0
							0.00%	-		0
70.		Total plant in service (Sum of L1 thru L69)	131,604,993	4,819,453	136,424,446	4,819,453		133,197		3,935,334

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CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
CALCULATION OF PLANT IN SERVICE
For The Rate Year 2 Ended March 31, 2025

Public Staff WSIP Exhibit 1
Schedule 2-1(a)(2)
Page 3 of 4

BF/FH WATER OPERATIONS

Line									RY2 additions	Total PIS for AD
			Amount per PS	PS Adjustment /	Amount per	RY1	Depreciation		book	per PS
No.	No.	Item	base case	Engineering	PS RY1	additions	rate	Depreciation		Depreciation
			(a)	(b)	(c)	(d)	(e)	(f)		(g)
1.	141101	Land and Rights General	13,990	0	13,990	0	0.00%	-		0
2.	141102	Land and Rights Pump	21,025	0	21,025	0	0.00%	-		0
3.	141201	Organization	100,866	0	100,866	0	2.50%	-		2,522
4.	141202	Franchises	51,240	0	51,240	0	2.50%	-		1,281
5.	141203	Struct and Improv General Plant	2,611	368	2,979	368	2.00%	7.35		60
6.	141204	Struct and Improv Service Supplies	226,600	79,368	305,968	79,368	2.00%	1,587.37		6,119
7.	141205	Struct and Improv Water Treat Plt	148,430	1,145	149,576	1,145	2.00%	22.91		2,992
8.	141206	Struct and Improv Trans Dist Plt	461	0	461	0	2.00%	-		9
9.	141220	Struct and Improv Office	85,815	0	85,815	0	10.00%	-		8,582
10.	141223	Wells and Springs	518,518	8,003	526,521	8,003	2.00%	160.06		10,530
11.	141225	Supply Mains	12,113	1,118	13,231	1,118	1.00%	11.18		132
12.	141227	Electric Pump Equip Src Pump	67,362	4,058	71,420	4,058	14.29%	579.87		10,206
13.	141228	Electric Pump Equip WTP	410,965	10,750	421,715	10,750	3.33%	357.98		14,043
14.	141229	Electric Pump Equip Trans Dist	66,946	3,853	70,800	3,853	14.29%	550.61		10,117
15.	141230	Water Treatment Equipment	157,395	4,699	162,094	4,699	2.50%	117.47		4,052
16.	141231	Dist Resv and Standpipes	2,728,671	22,916	2,751,587	22,916	2.00%	458.33		55,032
17.	141232	Trans and Distr Mains	2,115,079	33,067	2,148,147	33,067	1.00%	330.67		21,481
18.	141233	Service Lines	874,530	0	874,530	0	2.00%	-		17,491
19.	141234	Meters	596,676	659,711	1,256,387	659,711	3.33%	21,968.37		41,838
20.	141235	Meter Installations	186,239	0	186,239	0	3.33%	-		6,202
21.	141236	Hydrants	282,702	3,728	286,430	3,728	2.50%	93.19		7,161
22.	141237	Backflow Prevention Devices	193	41	234	41	10.00%	4.14		23
23.	141299	Utility Plant Clearing	0	0	0	0	0.00%	-		0
24.	141303	Office Furniture	45,570	0	45,570	0	10.00%	-		4,557
25.	141305	Stores Equipment	400	25	425	25	3.33%	0.83		14
26.	141306	Lab Equipment	14,883	343	15,227	343	10.00%	34.35		1,523
27.	141308	Tool Shop Equipment	103,870	652	104,522	652	5.00%	32.59		5,226
28.	141309	Power Operated Equipment	14,592	947	15,539	947	10.00%	94.71		1,554
29.	141310	Communications Equipment	88,920	6,056	94,975	6,056	10.00%	605.58		9,498
30.	141311	Misc Equipment	620	92	711	92	3.33%	3.05		24
31.	141401	Vehicles	222,385	0	222,385	0	20.00%	-		44,477
32.	141501	Computer Hardware	93	0	93	0	16.67%	-		16
33.	141502	Desktop/Laptop Computers	2,099	0	2,099	0	16.67%	-		350
34.	141503	Mainframe Computers	17,855	0	17,855	0	0.00%	-		0
35.	141504	Mini Comp Wtr	172,887	0	172,887	0	0.00%	-		0
36.	141601	Computer Software	13,828	0	13,828	0	0.00%	-		0
37.	141602	Comp Systems	423,069	0	423,069	0	0.00%	-		0
38.	141603	Micro Systems	8,776	0	8,776	0	0.00%	-		0
39.	141699	Computer Clearing	0	0	0	0	0.00%	-		0
40.	141221	Collecting Reservoirs	0	0	0	0	2.00%	-		0
41.	141269	Other and Misc Equip WTP	0	0	0	0	2.50%	-		0
42.	141399	Building and Equipment Clearing	0	0	0	0	0.00%	-		0
43.	Total plant in service (Sum of L1 thru L42)		9,798,275	840,941	10,639,217	840,941		27,021		287,110

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CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
CALCULATION OF PLANT IN SERVICE
For The Rate Year 2 Ended March 31, 2025

Public Staff WSIP Exhibit 1
Schedule 2-1(a)(2)
Page 4 of 4

BF/FH SEWER OPERATIONS

Line									RY2 additions	Total PIS for AD
			Amount per PS	PS Adjustment /	Amount per	RY1	Depreciation	Depreciation	book	per PS
No.	No.	Item	base case	Engineering	PS RY1	additions	rate	Depreciation		
			(a)	(b)	(c)	(d)	(e)	(f)		(g)
1.	141201	Organization	14,682	0	14,682	0	2.50%	-		367
2.	141202	Franchises	41,938	0	41,938	0	2.50%	-		1,048
3.	141203	Struct and Improv General Plant	285,393	18,300	303,694	18,300	2.00%	366.01		6,074
4.	141207	Struct and Improv Collect Plant	150	0	150	0	0.00%	-		0
5.	141208	Struct and Improv Pump Plant	1,693,661	459,262	2,152,924	459,262	2.00%	9,185.24		43,058
6.	141209	Struct and Improv Treatment Plant	1,848,356	5,196,567	7,044,923	5,196,567	2.50%	129,914.18		176,123
7.	141211	Struct and Improv Reclaim Wtr Dist	2,477	0	2,477	0	2.50%	-		62
8.	141220	Struct and Improv Office	136,538	0	136,538	0	10.00%	-		13,654
9.	141227	Electric Pump Equip Src Pump	(2,538)	0	(2,538)	0	0.00%	-		0
10.	141230	Water Treatment Equipment	944,752	0	944,752	0	0.00%	-		0
11.	141231	Dist Resv and Standpipes	5,051	0	5,051	0	2.00%	-		101
12.	141232	Trans and Distr Mains	16,702	0	16,702	0	1.00%	-		167
13.	141239	Power Gen Equip Pump Plt	112,594	119	112,713	119	10.00%	11.92		11,271
14.	141241	Sewer Force Main	237,067	10,061	247,128	10,061	1.33%	133.81		3,287
15.	141242	Sewer Gravity Main	6,234,925	0	6,234,925	0	1.00%	-		62,349
16.	141243	Manholes	53,112	0	53,112	0	1.00%	-		531
17.	141244	Special Collection Structures	775	0	775	0	2.00%	-		16
18.	141245	Service to Customers	339,216	0	339,216	0	1.33%	-		4,512
19.	141246	Flow Measure Devices	17,972	166	18,137	166	4.00%	6.64		725
20.	141249	Pumping Equip Pump Plt	837,326	10,573	847,899	10,573	14.29%	1,510.91		121,165
21.	141250	Pumping Equip Reclaim WTP	105,260	9,041	114,301	9,041	14.29%	1,291.92		16,334
22.	141252	Treat/Disp Equip Lagoon	56	0	56	0	2.50%	-		1
23.	141253	Treat/Disp Equip Trt Plt	2,974,153	24,806	2,998,959	24,806	2.50%	620.14		74,974
24.	141255	Plant Sewers Treatment Plt	400,332	6,881	407,212	6,881	2.50%	172.02		10,180
25.	141257	Outfall Lines	84,313	9,613	93,926	9,613	1.00%	96.13		939
26.	141263	Reuse Dist Reservoirs	2,763	0	2,763	0	2.00%	-		55
27.	141264	Reuse Transmission and Dist	2,845	354	3,198	354	2.00%	7.07		64
28.	141271	Other Tangible Plant	79,334	0	79,334	0	2.50%	-		1,983
29.	141272	Other Plant Collection	(224)	0	(224)	0	2.00%	-		(4)
30.	141273	Other Plant Pump	3,442	0	3,442	0	2.50%	-		86
31.	141275	Other Plant Reclaim Water Trt	13,511	834	14,345	834	2.50%	20.84		359
32.	141299	Utility Plant Clearing	(0)	0	(0)	0	0.00%	-		0
33.	141303	Office Furniture	43,768	0	43,768	0	10.00%	-		4,377
34.	141305	Stores Equipment	2,836	10	2,846	10	3.33%	0.34		95
35.	141306	Lab Equipment	6,734	0	6,734	0	10.00%	-		673
36.	141308	Tool Shop Equipment	22,686	590	23,276	590	5.00%	29.49		1,164
37.	141309	Power Operated Equipment	55,267	974	56,241	974	10.00%	97.43		5,624
38.	141310	Communications Equipment	70,684	7,261	77,945	7,261	10.00%	726.12		7,795
39.	141311	Misc Equipment	71,073	2,076	73,149	2,076	3.33%	69.14		2,436
40.	141399	Building and Equipment Clearing	0	0	0	0	0.00%	-		0
41.	141401	Vehicles	227,632	0	227,632	0	0.00%	-		0
42.	141501	Computer Hardware	95	0	95	0	16.67%	-		16
43.	141502	Desktop/Laptop Computers	2,149	0	2,149	0	0.00%	-		0
44.	141503	Mainframe Computers	18,276	0	18,276	0	0.00%	-		0
45.	141504	Mini Comp Wtr	176,967	0	176,967	0	0.00%	-		0
46.	141601	Computer Software	14,156	0	14,156	0	0.00%	-		0
47.	141602	Comp Systems	433,053	0	433,053	0	0.00%	-		0
48.	141603	Micro Systems	8,984	0	8,984	0	0.00%	-		0
49.	141699	Computer Clearing	0	0	0	0	0.00%	-		0
50.	141251	Pumping Equip Rcl Wtr Dist	0	0	0	0	14.29%	-		0
51.	141254	Treat/Disp Equip Rclm Wtr	0	0	0	0	2.50%	-		0
52.	Total plant in service (Sum of L1 thru L51)		17,640,293	5,757,488	23,397,781	5,757,488		144,259		571,661

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Dec 05 2022

Carolina Water Service, Inc. of North Carolina

W - 354, Sub 400

CALCULATION OF PLANT IN SERVICE

For The Rate Year 3 Ended March 31, 2026

Public Staff WSIP Exhibit 1

Schedule 2-1(a)(3)

Page 1 of 4

CWSNC WATER OPERATIONS

Line	New Account						RY3 additions book	Total PIS for AD per PS
			Amount per PS	PS Adjustment	Amount per PS	RY1	Depreciation	
No.	No.	Item	base case	/ Engineering	RY1	additions	rate	Depreciation
			(a)	(b)	(c)	(d)	(e)	(f)
								(g)
1.	141201	Organization	484,577	0	484,577	0	2.50%	-
2.	141202	Franchises	229,516	0	229,516	0	2.50%	-
3.	141102	Land & land rights pump	50,818	0	50,818	0	0.00%	-
4.	141501	Computer Hardware	673	0	673	0	0.00%	-
5.	141502	Desktop/Laptop Computers	15,181	0	15,181	0	0.00%	-
6.	141101	Land & land rights gen. plt.	868,420	0	868,420	0	0.00%	-
7.	141204	Struct & improv. src. supply	5,877,487	37,705	5,915,192	37,705	2.00%	754.10
8.	141205	Struct & improv. wtr. trt. plt.	1,745,607	53,853	1,799,460	53,853	2.00%	1,077.06
9.	141206	Struct & improv. trans. dist.	308,951	7,474	316,425	7,474	2.00%	149.48
10.	141203	Struct & improv. gen. plt.	456,412	15,826	472,238	15,826	2.00%	316.51
11.	141221	Collecting reservoirs	732,382	0	732,382	0	2.00%	-
12.	141223	Wells & springs	16,675,652	60,702	16,736,353	60,702	2.00%	1,214.03
13.	141224	Infiltration gallery	45,185	0	45,185	0	2.50%	-
14.	141225	Supply mains	1,050,929	98,437	1,149,366	98,437	1.00%	984.37
15.	141226	Power generation equip.	168,796	221,188	389,984	221,188	10.00%	22,118.78
16.	141227	Electric pump equip. src. plt.	3,142,724	58,765	3,201,489	58,765	14.29%	8,397.49
17.	141228	Electric pump equip. wtp.	10,064,265	274,091	10,338,356	274,091	3.33%	9,127.23
18.	141229	Electric pump equip. trans.	5,009,429	110,530	5,119,959	110,530	14.29%	15,794.69
19.	141230	Water treatment equip.	6,839,398	174,778	7,014,177	174,778	2.50%	4,369.46
20.	141231	Dist. resv. & standpipes	9,212,456	135,862	9,348,318	135,862	2.00%	2,717.23
21.	141232	Trans. & distr. mains	42,205,894	1,849,159	44,055,053	1,849,159	1.00%	18,491.59
22.	141233	Service lines	15,097,388	0	15,097,388	0	2.00%	-
23.	141234	Meters	11,871,909	0	11,871,909	0	3.33%	-
24.	141235	Meter installations	2,096,397	0	2,096,397	0	3.33%	-
25.	141236	Hydrants	1,557,023	51,631	1,608,654	51,631	2.50%	1,290.77
26.	141237	Backflow prevention devic.	64,450	1,552	66,002	1,552	10.00%	155.17
27.	141268	Other plt. & misc. equip. src. su.	260	0	260	0	2.50%	-
28.	141269	Other plt. & misc. equip. wtp.	24,969	0	24,969	0	2.50%	-
29.	141220	Office struct & improv.	807,507	0	807,507	0	10.00%	-
30.	141303	Office furn. & equip.	579,532	0	579,532	0	10.00%	-
31.	141305	Stores equipment	21,880	2,811	24,692	2,811	3.33%	93.62
32.	141308	Tool shop & misc. equip.	1,102,507	6,254	1,108,762	6,254	5.00%	312.71
33.	141306	Laboratory equipment	134,760	1,471	136,231	1,471	10.00%	147.09
34.	141309	Power operated equip.	386,041	5,854	391,894	5,854	10.00%	585.37
35.	141310	Communication equip.	1,369,323	245,007	1,614,330	245,007	10.00%	24,500.71
36.	141311	Misc. equipment	226,625	5,712	232,336	5,712	3.33%	190.20
37.	141278	Water plant allocated	207,809	0	207,809	0	6.67%	-
38.	141271	Other tangible plt. water	48,727	0	48,727	0	2.50%	-
39.	141248	Receiving Wells	176,603	0	176,603	0	2.00%	-
40.	141401	Transportation equip.	2,360,014	0	2,360,014	0	20.00%	-
41.	141503	Mainframe computer - wtr	129,260	0	129,260	0	0.00%	-
42.	141504	Mini computer - wtr	1,261,915	0	1,261,915	0	0.00%	-
43.	141602	Comp. system cost - wtr	3,187,131	0	3,187,131	0	0.00%	-
44.	141603	Micro system cost - wtr	63,521	0	63,521	0	0.00%	-
45.	141255	Plant Sewers Treatment Plt	0	0	0	0	2.50%	-
46.	141299	Utility Plant Clearing	(0)	0	(0)	0	0.00%	-
47.	141699	Computer Clearing	0	0	0	0	0.00%	-
48.	141601	Computer Software	99,996	0	99,996	0	0.00%	-
49.	141103	Land and Rights Water	357,109	0	357,109	0	0.00%	-
50.	141104	Land and Rights Trans	18,896	0	18,896	0	0.00%	-
51.	141293	Plant Held for Future Use	(382,146)	0	(382,146)	0	0.00%	-
52.	141399	Building and Equipment Clearing	0	0	0	0	0.00%	-
53.	Total plant in service (Sum of L1 thru L52)		148,054,158	3,418,660	151,472,819	3,418,660		112,788
								4,647,289

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Dec 05 2022

CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 400

CALCULATION OF PLANT IN SERVICE

For The Rate Year 3 Ended March 31, 2026

Public Staff WSIP Exhibit 1

Schedule 2-1(a)(3)

Page 2 of 4

CWSNC SEWER OPERATIONS

Line			Amount per PS	PS Adjustment	Amount per PS	RY1	Depreciation	RY3 additions	Total PIS for AD
			base case	/ Engineering	RY1	additions	rate	book	per PS
No.	No.	Item	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1.	141201	Organization	883,492	0	883,492	0	2.50%	-	22,087
2.	141202	Franchises intang. plt.	127,476	0	127,476	0	2.50%	-	3,187
3.	141107	Land & land rights trmnt plt	39,167	0	39,167	0	0.00%	-	0
4.	141108	Land & land rights reclaim.	1,150	0	1,150	0	0.00%	-	0
5.	141101	Land and Rights General	0	0	0	0	0.00%	-	0
6.	141207	Struct/improv. coll. plt.	117,978	4,698	122,676	4,698	2.00%	93.96	2,454
7.	141208	Struct/improv. pump plt. ls.	13,589,151	362,916	13,952,066	362,916	2.00%	7,258.31	279,041
8.	141209	Struct/improv. treat. plt.	32,081,297	14,903,756	46,985,052	14,903,756	2.50%	372,593.89	1,174,626
9.	141210	Struct/improv. reclaim. wtp.	3,271	0	3,271	0	2.50%	-	82
10.	141211	Struct/improv. reclaim. wtr.	180,917	218	181,136	218	2.50%	5.46	4,528
11.	141203	Struct/improv. gen. plt.	1,764,447	28,601	1,793,048	28,601	2.00%	572.02	35,861
12.	141238	Power gen. equip. coll. plt.	107,623	0	107,623	0	10.00%	-	10,762
13.	141239	Power gen. equip. pump plt.	53,611	135	53,746	135	10.00%	13.51	5,375
14.	141240	Power gen. equip. treat. plt.	328,260	103,520	431,780	103,520	10.00%	10,352.02	43,178
15.	141241	Sewer force main/serv. lin.	4,573,041	53,345	4,626,386	53,345	1.33%	709.49	61,531
16.	141242	Sewer gravity main	22,578,360	980,364	23,558,724	980,364	1.00%	9,803.64	235,587
17.	141243	Manholes	1,751,178	0	1,751,178	0	1.00%	-	17,512
18.	141244	Special coll. structures	7,594	281	7,876	281	2.00%	5.62	158
19.	141245	Services to customers	2,249,446	0	2,249,446	0	1.33%	-	29,918
20.	141246	Flow measure devices	159,472	6,869	166,341	6,869	4.00%	274.76	6,654
21.	141247	Flow measure install	1,146	20	1,166	20	4.00%	0.80	47
22.	141248	Receiving wells	305,924	35,970	341,893	35,970	2.00%	719.39	6,838
23.	141249	Pumping equipment pump plt.	5,494,339	175,804	5,670,143	175,804	14.29%	25,122.32	810,263
24.	141250	Pumping equipment reclaim.	40,893	621	41,514	621	14.29%	88.79	5,932
25.	141251	Pumping equipment rcl. wtr.	91,384	3,964	95,349	3,964	14.29%	566.50	13,625
26.	141252	Treat./disp. equip. lagoon	609,020	5,641	614,661	5,641	2.50%	141.02	15,367
27.	141253	Treat./disp. equip. trt. plt.	22,187,419	236,729	22,424,148	236,729	2.50%	5,918.22	560,604
28.	141254	Treat./disp. equip. rct. wtp.	37,592	4,102	41,694	4,102	2.50%	102.56	1,042
29.	141255	Plant sewers treat. plt.	18,096,372	55,197	18,151,569	55,197	2.50%	1,379.92	453,789
30.	141256	Plant sewers reclaim wtp.	8,438	187	8,625	187	2.50%	4.67	216
31.	141257	Outfall lines	728,340	35,998	764,338	35,998	1.00%	359.98	7,643
32.	141271	Other plt. tangible	19,930	2,585	22,515	2,585	2.50%	64.61	563
33.	141272	Other plt. collection	22,425	86	22,511	86	2.00%	1.72	450
34.	141273	Other plt. pump	476,626	1,300	477,927	1,300	2.50%	32.51	11,948
35.	141274	Other plt. treatment	372,361	16,146	388,506	16,146	2.50%	403.64	9,713
36.	141275	Other plt. reclaim wtr. trt.	650	0	650	0	2.50%	-	16
37.	141276	Other plt. reclaim wtr. dis.	460	0	460	0	2.50%	-	11
38.	141220	Office struct & improv.	327,965	0	327,965	0	10.00%	-	32,797
39.	141303	Office furn. & equip.	330,403	0	330,403	0	10.00%	-	33,040
40.	141305	Stores equipment	9,447	612	10,059	612	3.33%	20.37	335
41.	141308	Tool shop & misc. equip.	579,149	3,723	582,873	3,723	5.00%	186.16	29,144
42.	141306	Laboratory equipment	204,231	3,213	207,444	3,213	10.00%	321.33	20,744
43.	141309	Power operated equip.	517,507	18,912	536,420	18,912	10.00%	1,891.24	53,642
44.	141310	Communication equip.	207,074	5,129	212,203	5,129	10.00%	512.88	21,220
45.	141311	Misc equip. sewer	83,112	5,891	89,003	5,891	3.33%	196.16	2,964
46.	141278	Sewer plant allocated	526,952	0	526,952	0	6.67%	-	35,148
47.	0	Other tangible plt. sewer	0	0	0	0	2.50%	-	0
48.	141263	Reuse dist. reservoirs	3,560	26	3,586	26	2.00%	0.53	72
49.	141264	Reuse transmission & dist.	138,530	8,705	147,235	8,705	2.00%	174.10	2,945
50.	141401	Transportation equip.	1,407,999	0	1,407,999	0	20.00%	-	281,600
51.	141502	Desktop computer - wtr	9,057	0	9,057	0	0.00%	-	0
52.	141503	Mainframe computer - wtr	77,118	0	77,118	0	0.00%	-	0
53.	141504	Mini computer - wtr	753,119	0	753,119	0	0.00%	-	0
54.	141602	Comp. system cost - wtr	1,901,461	0	1,901,461	0	0.00%	-	0
55.	141603	Micro system cost - wtr	37,897	0	37,897	0	0.00%	-	0
56.	141501	Computer Hardware	401	0	401	0	0.00%	-	0
57.	141601	Computer Software	59,659	0	59,659	0	0.00%	-	0
58.	141699	Computer Clearing	0	0	0	0	0.00%	-	0
59.	141231	Dist Resv and Standpipes	20,648	0	20,648	0	2.00%	-	413
60.	141232	Trans and Distr Mains	68,271	0	68,271	0	1.00%	-	683
61.	141299	Utility Plant Clearing	(0)	0	(0)	0	0.00%	-	0
62.	141399	Building and Equipment Clearing	0	0	0	0	0.00%	-	0
63.	141233	Service Lines	(120)	0	(120)	0	2.00%	-	(2)
64.	141293	Plt. held for future use	(227,990)	0	(227,990)	0	0.00%	-	0
66.	141205		0	0	0	0	2.00%	-	0
67.	141230		0	0	0	0	2.50%	-	0
68.	113101		0	0	0	0	0.00%	-	0
69.	141226		298,745	0	298,745	0	10.00%	-	29,875
		Pro forma plant additions	0	0	0	0	2.50%	-	0
							0.00%	-	0
70.		Total plant in service (Sum of L1 thru L69)	136,424,446	17,065,265	153,489,710	17,065,265		439,892	4,375,226

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CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 400

CALCULATION OF PLANT IN SERVICE

For The Rate Year 3 Ended March 31, 2026

Public Staff WSIP Exhibit 1

Schedule 2-1(a)(3)

Page 3 of 4

BF/FH WATER OPERATIONS

Line								RY3 additions book	Total PIS for AD per PS
No.	No.	Item	Amount per PS base case (a)	PS Adjustment / Engineering (b)	Amount per PS RY1 (c)	RY1 additions (d)	Depreciation rate (e)	Depreciation (f)	Depreciation (g)
1.	141101	Land and Rights General	13,990	0	13,990	0	0.00%	-	0
2.	141102	Land and Rights Pump	21,025	0	21,025	0	0.00%	-	0
3.	141201	Organization	100,866	0	100,866	0	2.50%	-	2,522
4.	141202	Franchises	51,240	0	51,240	0	2.50%	-	1,281
5.	141203	Struct and Improv General Plant	2,979	368	3,347	368	2.00%	7.35	67
6.	141204	Struct and Improv Service Supplies	305,968	11,590	317,558	11,590	2.00%	231.80	6,351
7.	141205	Struct and Improv Water Treat Plt	149,576	1,145	150,721	1,145	2.00%	22.91	3,014
8.	141206	Struct and Improv Trans Dist Plt	461	0	461	0	2.00%	-	9
9.	141220	Struct and Improv Office	85,815	0	85,815	0	10.00%	-	8,582
10.	141223	Wells and Springs	526,521	8,003	534,524	8,003	2.00%	160.06	10,690
11.	141225	Supply Mains	13,231	1,118	14,349	1,118	1.00%	11.18	143
12.	141227	Electric Pump Equip Src Pump	71,420	4,058	75,478	4,058	14.29%	579.87	10,786
13.	141228	Electric Pump Equip WTP	421,715	10,750	432,465	10,750	3.33%	357.98	14,401
14.	141229	Electric Pump Equip Trans Dist	70,800	3,853	74,653	3,853	14.29%	550.61	10,688
15.	141230	Water Treatment Equipment	162,094	4,699	166,793	4,699	2.50%	117.47	4,170
16.	141231	Dist Resv and Standpipes	2,751,587	22,916	2,774,504	22,916	2.00%	458.33	55,490
17.	141232	Trans and Distr Mains	2,148,147	198,515	2,346,662	198,515	1.00%	1,985.15	23,467
18.	141233	Service Lines	874,530	0	874,530	0	2.00%	-	17,491
19.	141234	Meters	1,256,387	0	1,256,387	0	3.33%	-	41,838
20.	141235	Meter Installations	186,239	0	186,239	0	3.33%	-	6,202
21.	141236	Hydrants	286,430	3,728	290,157	3,728	2.50%	93.19	7,254
22.	141237	Backflow Prevention Devices	234	41	275	41	10.00%	4.14	28
23.	141299	Utility Plant Clearing	0	0	0	0	0.00%	-	0
24.	141303	Office Furniture	45,570	0	45,570	0	10.00%	-	4,557
25.	141305	Stores Equipment	425	25	450	25	3.33%	0.83	15
26.	141306	Lab Equipment	15,227	343	15,570	343	10.00%	34.35	1,557
27.	141308	Tool Shop Equipment	104,522	652	105,174	652	5.00%	32.59	5,259
28.	141309	Power Operated Equipment	15,539	947	16,486	947	10.00%	94.71	1,649
29.	141310	Communications Equipment	94,975	6,056	101,031	6,056	10.00%	605.58	10,103
30.	141311	Misc Equipment	711	92	803	92	3.33%	3.05	27
31.	141401	Vehicles	222,385	0	222,385	0	20.00%	-	44,477
32.	141501	Computer Hardware	93	0	93	0	16.67%	-	16
33.	141502	Desktop/Laptop Computers	2,099	0	2,099	0	16.67%	-	350
34.	141503	Mainframe Computers	17,855	0	17,855	0	0.00%	-	0
35.	141504	Mini Comp Wtr	172,887	0	172,887	0	0.00%	-	0
36.	141601	Computer Software	13,828	0	13,828	0	0.00%	-	0
37.	141602	Comp Systems	423,069	0	423,069	0	0.00%	-	0
38.	141603	Micro Systems	8,776	0	8,776	0	0.00%	-	0
39.	141699	Computer Clearing	0	0	0	0	0.00%	-	0
40.	141221	Collecting Reservoirs	0	0	0	0	2.00%	-	0
41.	141269	Other and Misc Equip WTP	0	0	0	0	2.50%	-	0
42.	141399	Building and Equipment Clearing	0	0	0	0	0.00%	-	0
43.		Total plant in service (Sum of L1 thru L42)	10,639,217	278,900	10,918,117	278,900		5,351	292,461

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CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
CALCULATION OF PLANT IN SERVICE
For The Rate Year 3 Ended March 31, 2026

Public Staff WSIP Exhibit 1
Schedule 2-1(a)(3)
Page 4 of 4

BF/FH SEWER OPERATIONS

Line							RY3 additions book	Total PIS for AD per PS	
No.	No.	Item	Amount per PS base case (a)	PS Adjustment /Engineering (b)	Amount per PS RY1 (c)	RY1 additions (d)	Depreciation rate (e)	Depreciation (f)	Depreciation (g)
1.	141201	Organization	14,682	0	14,682	0	2.50%	-	367
2.	141202	Franchises	41,938	0	41,938	0	2.50%	-	1,048
3.	141203	Struct and Improv General Plant	303,694	18,300	321,994	18,300	2.00%	366.01	6,440
4.	141207	Struct and Improv Collect Plant	150	0	150	0	0.00%	-	0
5.	141208	Struct and Improv Pump Plant	2,152,924	2,622	2,155,546	2,622	2.00%	52.44	43,111
6.	141209	Struct and Improv Treatment Plant	7,044,923	10,802	7,055,725	10,802	2.50%	270.05	176,393
7.	141211	Struct and Improv Reclaim Wtr Dist	2,477	0	2,477	0	2.50%	-	62
8.	141220	Struct and Improv Office	136,538	0	136,538	0	10.00%	-	13,654
9.	141227	Electric Pump Equip Src Pump	(2,538)	0	(2,538)	0	0.00%	-	0
10.	141230	Water Treatment Equipment	944,752	0	944,752	0	0.00%	-	0
11.	141231	Dist Resv and Standpipes	5,051	0	5,051	0	2.00%	-	101
12.	141232	Trans and Distr Mains	16,702	0	16,702	0	1.00%	-	167
13.	141239	Power Gen Equip Pump Plt	112,713	119	112,832	119	10.00%	11.92	11,283
14.	141241	Sewer Force Main	247,128	10,061	257,189	10,061	1.33%	133.81	3,421
15.	141242	Sewer Gravity Main	6,234,925	385,203	6,620,129	385,203	1.00%	3,852.03	66,201
16.	141243	Manholes	53,112	0	53,112	0	1.00%	-	531
17.	141244	Special Collection Structures	775	0	775	0	2.00%	-	16
18.	141245	Service to Customers	339,216	0	339,216	0	1.33%	-	4,512
19.	141246	Flow Measure Devices	18,137	166	18,303	166	4.00%	6.64	732
20.	141249	Pumping Equip Pump Plt	847,899	10,573	858,472	10,573	14.29%	1,510.91	122,676
21.	141250	Pumping Equip Reclaim WTP	114,301	9,041	123,342	9,041	14.29%	1,291.92	17,626
22.	141252	Treat/Disp Equip Lagoon	56	0	56	0	2.50%	-	1
23.	141253	Treat/Disp Equip Trt Plt	2,998,959	24,806	3,023,764	24,806	2.50%	620.14	75,594
24.	141255	Plant Sewers Treatment Plt	407,212	6,881	414,093	6,881	2.50%	172.02	10,352
25.	141257	Outfall Lines	93,926	9,613	103,539	9,613	1.00%	96.13	1,035
26.	141263	Reuse Dist Reservoirs	2,763	0	2,763	0	2.00%	-	55
27.	141264	Reuse Transmission and Dist	3,198	354	3,552	354	2.00%	7.07	71
28.	141271	Other Tangible Plant	79,334	0	79,334	0	2.50%	-	1,983
29.	141272	Other Plant Collection	(224)	0	(224)	0	2.00%	-	(4)
30.	141273	Other Plant Pump	3,442	0	3,442	0	2.50%	-	86
31.	141275	Other Plant Reclaim Water Trt	14,345	834	15,178	834	2.50%	20.84	379
32.	141299	Utility Plant Clearing	(0)	0	(0)	0	0.00%	-	0
33.	141303	Office Furniture	43,768	0	43,768	0	10.00%	-	4,377
34.	141305	Stores Equipment	2,846	10	2,856	10	3.33%	0.34	95
35.	141306	Lab Equipment	6,734	0	6,734	0	10.00%	-	673
36.	141308	Tool Shop Equipment	23,276	590	23,866	590	5.00%	29.49	1,193
37.	141309	Power Operated Equipment	56,241	974	57,215	974	10.00%	97.43	5,722
38.	141310	Communications Equipment	77,945	7,261	85,206	7,261	10.00%	726.12	8,521
39.	141311	Misc Equipment	73,149	2,076	75,225	2,076	3.33%	69.14	2,505
40.	141399	Building and Equipment Clearing	0	0	0	0	0.00%	-	0
41.	141401	Vehicles	227,632	0	227,632	0	0.00%	-	0
42.	141501	Computer Hardware	95	0	95	0	16.67%	-	16
43.	141502	Desktop/Laptop Computers	2,149	0	2,149	0	0.00%	-	0
44.	141503	Mainframe Computers	18,276	0	18,276	0	0.00%	-	0
45.	141504	Mini Comp Wtr	176,967	0	176,967	0	0.00%	-	0
46.	141601	Computer Software	14,156	0	14,156	0	0.00%	-	0
47.	141602	Comp Systems	433,053	0	433,053	0	0.00%	-	0
48.	141603	Micro Systems	8,984	0	8,984	0	0.00%	-	0
49.	141699	Computer Clearing	0	0	0	0	0.00%	-	0
50.	141251	Pumping Equip Rcl Wtr Dist	0	0	0	0	14.29%	-	0
51.	141254	Treat/Disp Equip Rclm Wtr	0	0	0	0	2.50%	-	0
52.	Total plant in service (Sum of L1 thru L51)		23,397,781	500,286	23,898,067	500,286		9,334	580,995

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CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO DIRECT ACCUMULATED DEPRECIATION
For The Base Year Ended March 31, 2022

Public Staff WSIP Exhibit 1
Schedule 2-2

Line No.	Item	Base Year			
		CWSNC Water (a)	CWSNC Sewer (b)	BF/FH/TC Water (c)	BF/FH Sewer (d)
1	Accumulated depreciation per Company Company	<u>(\$36,543,210)</u>	<u>(\$29,573,021)</u>	<u>(\$2,511,133)</u>	<u>(\$3,434,669)</u>
2	Adjustment to include company updates 09.19.2022	(172,405)	(110,172)	(8,529)	(10,209)
3	Accumulated depreciation after adjusted for company updates (L1 + L2)	(36,715,615)	(29,683,192)	(2,519,662)	(3,444,878)
4	Adjustment to remove company's total proforma	1,192,338	1,184,607	37,393	154,008
5	Adjustment to include actual general ledger A/D additions through 8/31/2022	(1,007,169) [1]	(1,024,721) [1]	(32,242) [1]	(127,951) [1]
6	Adjustment to include company's performa for ERC adjustment	175,230 [1]	104,543 [1]	21,053 [1]	21,550 [1]
7	Adjustment to reflect annual level of depreciation	<u>(16,695) [1]</u>	<u>28,039 [1]</u>	<u>(5,222) [1]</u>	<u>19,418 [1]</u>
8	Adjustment to accumulated depreciation (Sum of L4 thru L7)	<u>343,704</u>	<u>292,468</u>	<u>20,982</u>	<u>67,025</u>
9	Accumulated depreciation per Public Staff (L3 + L8)	<u><u>(36,371,911)</u></u>	<u><u>(29,390,724)</u></u>	<u><u>(2,498,680)</u></u>	<u><u>(3,377,853)</u></u>

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

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO DIRECT ACCUMULATED DEPRECIATION
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 2-2 (a)

CWSNC WATER OPERATIONS

Line No.	<u>Item</u>	<u>Rate Year 1</u> (a)	<u>Rate Year 2</u> (b)	<u>Rate Year 3</u> (c)
1	Accumulated Depreciation per Company	(\$39,069,396) [1]	(\$40,736,813) [1]	(\$43,503,074) [1]
2	Public Staff Base Year Accumulated Depreciation	(36,371,911) [2]		
3	Adjustment to include Public Staff Rate Year 1 Depreciation Expenses	(6,664,938) [2]		
4	Public Staff RY1 Accumulated Depreciation		(43,036,849) [2]	
5	Adjustment to include Public Staff Rate Year 2 Depreciation Expenses		(4,534,501) [2]	
6	Public Staff RY2 Accumulated Depreciation			(47,571,350) [2]
7	Adjustment to include Public Staff Rate Year 3 Depreciation Expenses			(4,647,289) [2]
8	Accumulated Depreciation per Public Staff (L2 through L7)	(43,036,849)	(47,571,350)	(52,218,638)
9	Adjustment to accumulated depreciation (L8 - L1)	(3,967,452)	(6,834,537)	(8,715,564)

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

[2] Per Public Staff calculation.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO DIRECT ACCUMULATED DEPRECIATION
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 2-2(b)

CWSNC SEWER OPERATIONS

Line No.	Item	<u>Rate Year 1</u>	<u>Rate Year 2</u>	<u>Rate Year 3</u>
		(a)	(b)	(c)
1	Accumulated Depreciation per Company	(\$31,282,947) [1]	(\$31,927,240) [1]	(\$33,274,358) [1]
2	Public Staff Base Year Accumulated Depreciation	(29,390,724) [2]		
3	Adjustment to include Public Staff Rate Year 1 Depreciation Expenses	(5,799,819) [2]		
4	Public Staff RY1 Accumulated Depreciation		(35,190,543) [2]	
5	Adjustment to include Public Staff Rate Year 2 Depreciation Expenses		(3,935,334) [2]	
6	Public Staff RY2 Accumulated Depreciation			(39,125,877) [2]
7	Adjustment to include Public Staff Rate Year 3 Depreciation Expenses			(4,375,226) [2]
8	Accumulated Depreciation per Public Staff (L2 through L7)	(35,190,543)	(39,125,877)	(43,501,103)
9	Adjustment to accumulated depreciation (L8 - L1)	(3,907,596)	(7,198,636)	(10,226,745)

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

[2] Per Public Staff calculation.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO DIRECT ACCUMULATED DEPRECIATION
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 2-2(c)

Line No.	BF/FH WATER OPERATIONS Item	Rate Year 1	Rate Year 2	Rate Year 3
		(a)	(b)	(c)
1	Accumulated Depreciation per Company	<u>(\$2,572,995) [1]</u>	<u>(\$2,442,383) [1]</u>	<u>(\$2,356,089) [1]</u>
2	Public Staff Base Year Accumulated Depreciation	(2,498,680) [2]		
3	Adjustment to include Public Staff Rate Year 1 Depreciation Expenses	(380,170) [2]		
4	Public Staff RY1 Accumulated Depreciation		(2,878,849) [2]	
5	Adjustment to include Public Staff Rate Year 2 Depreciation Expenses		(287,110) [2]	
6	Public Staff RY2 Accumulated Depreciation			(3,165,959) [2]
7	Adjustment to include Public Staff Rate Year 3 Depreciation Expenses			<u>(292,461) [2]</u>
8	Accumulated Depreciation per Public Staff (L2 through L7)	<u>(2,878,849)</u>	<u>(3,165,959)</u>	<u>(3,458,421)</u>
9	Adjustment to accumulated depreciation (L8 - L1)	<u>(305,855)</u>	<u>(723,577)</u>	<u>(1,102,331)</u>

[1] Per examination of Company's financial records.
[2] Per Public Staff calculation.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO DIRECT ACCUMULATED DEPRECIATION
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 2-2(d)

Line No.	BF/FH SEWER OPERATIONS <u>Item</u>	<u>Rate Year 1</u>	<u>Rate Year 2</u>	<u>Rate Year 3</u>
		(a)	(b)	(c)
1	Accumulated Depreciation per Company	<u>(\$3,769,452) [1]</u>	<u>(\$3,436,066) [1]</u>	<u>(\$3,514,516) [1]</u>
2	Public Staff Base Year Accumulated Depreciation	(3,377,853) [2]		
3	Adjustment to include Public Staff Rate Year 1 Depreciation Expenses	(666,518) [2]		
4	Public Staff RY1 Accumulated Depreciation		(4,044,372) [2]	
5	Adjustment to include Public Staff Rate Year 2 Depreciation Expenses		(571,661) [2]	
6	Public Staff RY2 Accumulated Depreciation			(4,616,033) [2]
7	Adjustment to include Public Staff Rate Year 3 Depreciation Expenses			<u>(580,995) [2]</u>
8	Accumulated Depreciation per Public Staff (L2 through L7)	<u>(4,044,372)</u>	<u>(4,616,033)</u>	<u>(5,197,028)</u>
9	Adjustment to accumulated depreciation (L8 - L1)	<u>(274,920)</u>	<u>(1,179,967)</u>	<u>(1,682,512)</u>

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

[2] Per Public Staff calculation.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
CALCULATION OF CASH WORKING CAPITAL
For The Base Year Ended March 31, 2022

Public Staff WSIP Exhibit 1
Schedule 2-3

Line No.	Item	Base Year			
		CWSNC Water (a)	CWSNC Sewer (b)	BF/FH/TC Water (c)	BF/FH Sewer (d)
	<u>Cash Working Capital:</u>				
1	Maintenance expenses, less purchased water and sewer	\$2,957,848 [1]	\$3,426,400 [5]	\$416,926 [9]	\$408,113 [13]
2	General expenses	9,189,350 [2]	5,501,372 [6]	1,089,816 [10]	1,115,500 [14]
3	Total cash working capital expenses (L1 + L2)	<u>\$ 12,147,199</u>	<u>\$8,927,772</u>	<u>\$1,506,742</u>	<u>\$1,523,613</u>
4	Cash working capital (L3 x 1/8)	<u>1,518,400</u>	<u>1,115,971</u>	<u>188,343</u>	<u>190,452</u>
	<u>Average Tax Accruals:</u>				
5	Property taxes	135,969 [3]	105,629 [7]	7,746 [11]	9,754 [15]
6	Average accrual (L5 x 1/2)	<u>67,985</u>	<u>52,815</u>	<u>3,873</u>	<u>4,877</u>
7	Regulatory fee	31,200 [4]	23,862 [8]	2,590 [12]	3,709 [16]
8	Average accrual (L7 x 1/5)	<u>6,240</u>	<u>4,772</u>	<u>518</u>	<u>742</u>
9	Total tax accrual (L6 + L8)	<u>74,225</u>	<u>57,587</u>	<u>4,391</u>	<u>5,619</u>
10	Total cash working capital (L4 - L9)	<u>\$1,444,175</u>	<u>\$1,058,384</u>	<u>\$183,952</u>	<u>\$184,833</u>

- [1] Public Staff WSIP Exhibit 1, Schedule 3(a), Column (c), Line 15 minus Line 7.
[2] Public Staff WSIP Exhibit 1, Schedule 3(a), Column (c), Line 24.
[3] Public Staff WSIP Exhibit 1, Schedule 3(a), Column (c), Line 30.
[4] Public Staff WSIP Exhibit 1, Schedule 3(a), Column (c), Line 32.
[5] Public Staff WSIP Exhibit 1, Schedule 3(b), Column (c), Line 15 minus Line 7.
[6] Public Staff WSIP Exhibit 1, Schedule 3(b), Column (c), Line 24.
[7] Public Staff WSIP Exhibit 1, Schedule 3(b), Column (c), Line 30.
[8] Public Staff WSIP Exhibit 1, Schedule 3(b), Column (c), Line 32.

- [9] Public Staff WSIP Exhibit 1, Schedule 3(c), Column (c), Line 15 minus Line 7.
[10] Public Staff WSIP Exhibit 1, Schedule 3(c), Column (c), Line 24.
[11] Public Staff WSIP Exhibit 1, Schedule 3(c), Column (c), Line 30.
[12] Public Staff WSIP Exhibit 1, Schedule 3(c), Column (c), Line 32.
[13] Public Staff WSIP Exhibit 1, Schedule 3(d), Column (c), Line 15 minus Line 7.
[14] Public Staff WSIP Exhibit 1, Schedule 3(d), Column (c), Line 24.
[15] Public Staff WSIP Exhibit 1, Schedule 3(d), Column (c), Line 30.
[16] Public Staff WSIP Exhibit 1, Schedule 3(d), Column (c), Line 32.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
CALCULATION OF CASH WORKING CAPITAL
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 2-3(a)

CWSNC WATER OPERATIONS					
Line No.	Item	Rate Year 1 (a)	Rate Year 2 (b)	Rate Year 3 (c)	
	<u>Cash Working Capital:</u>				
1	Maintenance expenses, less purchased water and sewer	\$3,023,958 [1]	\$3,269,191 [5]	\$3,198,967 [9]	
2	General expenses	9,477,374 [2]	9,731,457 [6]	9,992,528 [10]	
3	Total cash working capital expenses (L1 + L2)	<u>\$ 12,501,333</u>	<u>\$ 13,000,648</u>	<u>\$ 13,191,494</u>	
4	Cash working capital (L3 x 1/8)	<u>1,562,667</u>	<u>1,625,081</u>	<u>1,648,937</u>	
	<u>Average Tax Accruals:</u>				
5	Property taxes	135,969 [3]	135,969 [7]	135,969 [11]	
6	Average accrual (L5 x 1/2)	<u>67,985</u>	<u>67,985</u>	<u>67,985</u>	
7	Regulatory fee	33,471 [4]	36,490 [8]	38,074 [12]	
8	Average accrual (L7 x 1/5)	<u>6,694</u>	<u>7,298</u>	<u>7,615</u>	
9	Total tax accrual (L6 + L8)	<u>74,679</u>	<u>75,283</u>	<u>75,600</u>	
10	Total cash working capital (L4 - L9)	<u>\$1,487,988</u>	<u>\$1,549,798</u>	<u>\$1,573,337</u>	

- [1] Public Staff WSIP Exhibit 1, Sch 3(a)(1), Column (g), Line 14 minus Line 6.
[2] Public Staff WSIP Exhibit 1, Sch 3(a)(1), Column (g), Line 23.
[3] Public Staff WSIP Exhibit 1, Sch 3(a)(1), Column (g), Line 29.
[4] Public Staff WSIP Exhibit 1, Sch 3(a)(1), Column (g), Line 31.
[5] Public Staff WSIP Exhibit 1, Sch 3(a)(2), Column (g), Line 14 minus Line 6.
[6] Public Staff WSIP Exhibit 1, Sch 3(a)(2), Column (g), Line 23.

- [7] Public Staff WSIP Exhibit 1, Sch 3(a)(2), Column (g), Line 29.
[8] Public Staff WSIP Exhibit 1, Sch 3(a)(2), Column (g), Line 31.
[9] Public Staff WSIP Exhibit 1, Sch 3(a)(3), Column (g), Line 14 minus Line 6.
[10] Public Staff WSIP Exhibit 1, Sch 3(a)(3), Column (g), Line 23.
[11] Public Staff WSIP Exhibit 1, Sch 3(a)(3), Column (g), Line 29.
[12] Public Staff WSIP Exhibit 1, Sch 3(a)(3), Column (g), Line 31.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
CALCULATION OF CASH WORKING CAPITAL
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 2-3(b)

CWSNC SEWER OPERATIONS

Line No.	Item	Rate Year 1 (a)	Rate Year 2 (b)	Rate Year 3 (c)
	Cash Working Capital:			
1	Maintenance expenses, less purchased water and sewer	\$3,286,991 [5]	\$3,320,656 [5]	\$3,381,197 [5]
2	General expenses	5,673,853 [6]	5,825,910 [6]	5,982,148 [6]
3	Total cash working capital expenses (L1 + L2)	<u>\$ 8,960,843</u>	<u>\$9,146,567</u>	<u>\$9,363,345</u>
4	Cash working capital (L3 x 1/8)	<u>1,120,105</u>	<u>1,143,321</u>	<u>1,170,418</u>
	Average Tax Accruals:			
5	Property taxes	105,629 [7]	105,629 [7]	105,629 [7]
6	Average accrual (L5 x 1/2)	<u>52,815</u>	<u>52,815</u>	<u>52,815</u>
7	Regulatory fee	26,247 [8]	29,250 [8]	30,992 [8]
8	Average accrual (L7 x 1/5)	<u>5,249</u>	<u>5,850</u>	<u>6,198</u>
9	Total tax accrual (L6 + L8)	<u>58,064</u>	<u>58,665</u>	<u>59,013</u>
10	Total cash working capital (L4 - L9)	<u>\$1,062,041</u>	<u>\$1,084,656</u>	<u>\$1,111,405</u>

- [1] Public Staff WSIP Exhibit 1, Sch 3(b)(1), Column (g), Line 14 minus Line 6.
[2] Public Staff WSIP Exhibit 1, Sch 3(b)(1), Column (g), Line 23.
[3] Public Staff WSIP Exhibit 1, Sch 3(b)(1), Column (g), Line 29.
[4] Public Staff WSIP Exhibit 1, Sch 3(b)(1), Column (g), Line 31.
[5] Public Staff WSIP Exhibit 1, Sch 3(b)(2), Column (g), Line 14 minus Line 6.
[6] Public Staff WSIP Exhibit 1, Sch 3(b)(2), Column (g), Line 23.

- [7] Public Staff WSIP Exhibit 1, Sch 3(b)(2), Column (g), Line 29.
[8] Public Staff WSIP Exhibit 1, Sch 3(b)(2), Column (g), Line 31.
[9] Public Staff WSIP Exhibit 1, Sch 3(b)(3), Column (g), Line 14 minus Line 6.
[10] Public Staff WSIP Exhibit 1, Sch 3(b)(3), Column (g), Line 23.
[11] Public Staff WSIP Exhibit 1, Sch 3(b)(3), Column (g), Line 29.
[12] Public Staff WSIP Exhibit 1, Sch 3(b)(3), Column (g), Line 31.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
CALCULATION OF CASH WORKING CAPITAL
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 2-3(c)

BF/FH/TC WATER OPERATIONS

Line No.	Item	Rate Year 1 (a)	Rate Year 2 (b)	Rate Year 3 (c)
	<u>Cash Working Capital:</u>			
1	Maintenance expenses, less purchased water and sewer	\$430,574 [9]	\$440,566 [5]	\$449,755 [9]
2	General expenses	1,123,934 [10]	1,154,108 [6]	1,185,111 [10]
3	Total cash working capital expenses (L1 + L2)	<u>\$ 1,554,507</u>	<u>\$1,594,674</u>	<u>\$1,634,865</u>
4	Cash working capital (L3 x 1/8)	<u>194,313</u>	<u>199,334</u>	<u>204,358</u>
	<u>Average Tax Accruals:</u>			
5	Property taxes	7,746 [11]	7,746 [7]	7,746 [11]
6	Average accrual (L5 x 1/2)	<u>3,873</u>	<u>3,873</u>	<u>3,873</u>
7	Regulatory fee	2,914 [12]	3,456 [8]	3,662 [12]
8	Average accrual (L7 x 1/5)	<u>583</u>	<u>691</u>	<u>732</u>
9	Total tax accrual (L6 + L8)	<u>4,456</u>	<u>4,564</u>	<u>4,605</u>
10	Total cash working capital (L4 - L9)	<u>\$189,857</u>	<u>\$194,770</u>	<u>\$199,753</u>

[1] Public Staff WSIP Exhibit 1, Sch 3(c)(1), Column (g), Line 14 minus Line 6.

[2] Public Staff WSIP Exhibit 1, Sch 3(c)(1), Column (g), Line 23.

[3] Public Staff WSIP Exhibit 1, Sch 3(c)(1), Column (g), Line 29.

[4] Public Staff WSIP Exhibit 1, Sch 3(c)(1), Column (g), Line 31.

[5] Public Staff WSIP Exhibit 1, Sch 3(c)(2), Column (g), Line 14 minus Line 6.

[6] Public Staff WSIP Exhibit 1, Sch 3(c)(2), Column (g), Line 23.

[7] Public Staff WSIP Exhibit 1, Sch 3(c)(2), Column (g), Line 29.

[8] Public Staff WSIP Exhibit 1, Sch 3(c)(2), Column (g), Line 31.

[9] Public Staff WSIP Exhibit 1, Sch 3(c)(3), Column (g), Line 14 minus Line 6.

[10] Public Staff WSIP Exhibit 1, Sch 3(c)(3), Column (g), Line 23.

[11] Public Staff WSIP Exhibit 1, Sch 3(c)(3), Column (g), Line 29.

[12] Public Staff WSIP Exhibit 1, Sch 3(c)(3), Column (g), Line 31.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
CALCULATION OF CASH WORKING CAPITAL
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schdule 2-3(d)

BF/FH SEWER OPERATIONS

Line No.	Item	Rate Year 1	Rate Year 2	Rate Year 3
	<u>Cash Working Capital:</u>			
1	Maintenance expenses, less purchased water and sewer	\$442,048 [13]	\$451,507 [13]	\$461,344 [13]
2	General expenses	1,150,424 [14]	1,181,306 [14]	1,213,042 [14]
3	Total cash working capital expenses (L1 + L2)	<u>\$ 1,592,472</u>	<u>\$1,632,814</u>	<u>\$1,674,386</u>
4	Cash working capital (L3 x 1/8)	<u>199,059</u>	<u>204,102</u>	<u>209,298</u>
	<u>Average Tax Accruals:</u>			
5	Property taxes	9,754 [15]	9,754 [15]	9,754 [15]
6	Average accrual (L5 x 1/2)	<u>4,877</u>	<u>4,877</u>	<u>4,877</u>
7	Regulatory fee	4,265 [16]	4,441 [16]	4,796 [16]
8	Average accrual (L7 x 1/5)	<u>853</u>	<u>888</u>	<u>959</u>
9	Total tax accrual (L6 + L8)	<u>5,730</u>	<u>5,765</u>	<u>5,836</u>
10	Total cash working capital (L4 - L9)	<u>\$193,329</u>	<u>\$198,337</u>	<u>\$203,462</u>

- [1] Public Staff WSIP Exhibit 1, Sch 3(d)(1), Column (g), Line 14 minus Line 6.
[2] Public Staff WSIP Exhibit 1, Sch 3(d)(1), Column (g), Line 23.
[3] Public Staff WSIP Exhibit 1, Sch 3(d)(1), Column (g), Line 29.
[4] Public Staff WSIP Exhibit 1, Sch 3(d)(1), Column (g), Line 31.
[5] Public Staff WSIP Exhibit 1, Sch 3(d)(2), Column (g), Line 14 minus Line 6.
[6] Public Staff WSIP Exhibit 1, Sch 3(d)(2), Column (g), Line 23.

- [7] Public Staff WSIP Exhibit 1, Sch 3(d)(2), Column (g), Line 29.
[8] Public Staff WSIP Exhibit 1, Sch 3(d)(2), Column (g), Line 31.
[9] Public Staff WSIP Exhibit 1, Sch 3(d)(3), Column (g), Line 14 minus Line 6.
[10] Public Staff WSIP Exhibit 1, Sch 3(d)(3), Column (g), Line 23.
[11] Public Staff WSIP Exhibit 1, Sch 3(d)(3), Column (g), Line 29.
[12] Public Staff WSIP Exhibit 1, Sch 3(d)(3), Column (g), Line 31.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
**ADJUSTMENT TO CONTRIBUTIONS IN AID OF
CONSTRUCTION, NET OF AMORTIZATION**
For The Base Year Ended March 31, 2022

Public Staff WSIP Exhibit 1
Schedule 2-4
P. 1 of 2

Line No.	Item	Base Year CWSNC Water Operations			[2]	Base Year CWSNC Sewer Operations			[3]
		CIAC (a)	Accumulated Amortization (b)	CIAC, Net of Amortization (c)		CIAC (d)	Accumulated Amortization (e)	CIAC, Net of Amortization (f)	
1	CIAC and accumulated amortization per application in the original filing	<u>(\$29,657,361)</u>	<u>\$13,169,634</u>	<u>(\$16,487,727)</u>		<u>(\$28,776,974)</u>	<u>\$12,350,678</u>	<u>(\$16,426,296)</u>	
2	Adjustment to include company updates 09.19.2022	(27,088)	(9,576)	(36,664)		25,522	772	26,294	
3	CIAC and accumulated amortization after adjusted for company updates (L1 + L2)	<u>(29,684,449)</u>	<u>13,160,058</u>	<u>(16,524,391)</u>		<u>(28,751,452)</u>	<u>12,351,450</u>	<u>(16,400,002)</u>	
4	Remove Company proforma adjustment	27,088	(356,834)	(329,746)		(25,522)	(313,858)	(339,380)	
5	Adjustment to include actual general ledger additions through 8/31/2022	(27,088) [1]	295,704 [1]	268,616		25,522 [1]	261,736 [1]	287,258	
6	Adjustment to reflect annual level of amortization	<u>0</u>	<u>25,099</u> [1]	<u>25,099</u>		<u>0</u>	<u>(3,692)</u> [1]	<u>(3,692)</u>	
7	Adjustment to CIAC (L4 + L5 + L6)	<u>0</u>	<u>(36,031)</u>	<u>(36,031)</u>		<u>0</u>	<u>(55,814)</u>	<u>(55,814)</u>	
8	CIAC per Public Staff (L3 + L7)	<u><u>(\$29,684,449)</u></u>	<u><u>\$13,124,027</u></u>	<u><u>(\$16,560,422)</u></u>		<u><u>(\$28,751,452)</u></u>	<u><u>\$12,295,636</u></u>	<u><u>(\$16,455,816)</u></u>	

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

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

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

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

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

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
**ADJUSTMENT TO CONTRIBUTIONS IN AID OF
CONSTRUCTION, NET OF AMORTIZATION**
For The Base Year Ended March 31, 2022

Public Staff WSIP Exhibit 1
Schedule 2-4
P. 2 of 2

Line No.	Item	Base Year BF/FH/TC Water Operations			[4]	Base Year BF/FH Sewer Operations			[5]
		CIAC (g)	Accumulated Amortization (h)	CIAC, Net of Amortization (i)		CIAC (j)	Accumulated Amortization (k)	CIAC, Net of Amortization (l)	
1	CIAC and accumulated amortization per application in the original filing	<u>(\$2,336,301)</u>	<u>\$1,289,262</u>	<u>(\$1,047,039)</u>		<u>(\$7,106,629)</u>	<u>\$3,478,864</u>	<u>(\$3,627,765)</u>	
2	Adjustment to include company updates 09.19.2022	(40,515)	(6,351)	(46,866)		-	(2,322)	(2,322)	
3	CIAC and accumulated amortization after adjusted for company updates (L1 + L2)	<u>(2,376,816)</u>	<u>1,282,911</u>	<u>(1,093,905)</u>		<u>(7,106,629)</u>	<u>3,476,542</u>	<u>(3,630,087)</u>	
4	Remove Company proforma adjustment	40,515	(22,040)	18,475		-	(72,996)	(72,996)	
5	Adjustment to include actual general ledger additions through 8/31/2022	(40,515) [1]	17,231 [1]	(23,284)		0 [1]	60,442 [1]	60,442	
6	Adjustment to reflect annual level of amortization	<u>0</u>	<u>16,751 [1]</u>	<u>16,751</u>		<u>0</u>	<u>5,573 [1]</u>	<u>5,573</u>	
7	Adjustment to CIAC (L4 + L5 + L6)	<u>0</u>	<u>11,942</u>	<u>11,942</u>		<u>0</u>	<u>(6,981)</u>	<u>(6,981)</u>	
8	CIAC per Public Staff (L3 + L7)	<u>(\$2,376,816)</u>	<u>\$1,294,853</u>	<u>(\$1,081,963)</u>		<u>(\$7,106,629)</u>	<u>\$3,469,561</u>	<u>(\$3,637,068)</u>	

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

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
**ADJUSTMENT TO CONTRIBUTIONS IN AID OF
CONSTRUCTION, NET OF AMORTIZATION**
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 2-4(a)

CWSNC WATER OPERATIONS		Rate Year 1			Rate Year 2			Rate Year 3		
		CIAC	Accumulated	CIAC, Net of	CIAC	Accumulated	CIAC, Net of	CIAC	Accumulated	CIAC, Net of
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
Line No.	Item	[1]	[2]	[3]	[1]	[2]	[3]	[1]	[2]	[3]
1	CIAC and accumulated amortization per Company	(\$29,684,449)	\$13,893,618	(\$15,790,832)	(\$29,684,449)	\$14,627,177	(\$15,057,272)	(\$29,684,449)	\$15,360,737	(\$14,323,712)
2	Public Staff Base Year CIAC and A/A of CIAC	(29,684,449)	13,124,027	(16,560,422) [3]			-			-
3	Adjustment to include Public Staff Rate Year 1 CIAC amortization expenses		1,161,470	1,161,470 [3]			-			-
4	Public Staff RY1 CIAC and A/A of CIAC			-	(29,684,449)	14,285,496	(15,398,953) [3]			-
5	Adjustment to include Public Staff Rate Year 2 CIAC amortization expenses			-		733,560	733,560 [3]			-
6	Public Staff RY2 CIAC and A/A of CIAC			-			-	(29,684,449)	15,019,056	(14,665,393) [3]
7	Adjustment to include Public Staff Rate Year 3 CIAC amortization expenses			-			-		733,560	733,560 [3]
8	CIAC and AA of CIAC per Public Staff (Sum L2 thr L 7)	(29,684,449)	14,285,496	(15,398,953)	(29,684,449)	15,019,056	(14,665,393)	(29,684,449)	15,752,616	(13,931,833)
9	Adjustment to CIAC and AA of CIAC (L8-L1)	0	391,879	391,879	0	391,878	391,879	0	391,878	391,879

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

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

[3] Per Public Staff's Calculation

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

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

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CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
**ADJUSTMENT TO CONTRIBUTIONS IN AID OF
CONSTRUCTION, NET OF AMORTIZATION**
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 2-4(b)

CWSNC SEWER OPERATIONS		Rate Year 1			Rate Year 2			Rate Year 3		
		CIAC	Accumulated	CIAC, Net of	CIAC	Accumulated	CIAC, Net of	CIAC	Accumulated	CIAC, Net of
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
Line No.	Item	[1]	[2]	[3]	[1]	[2]	[4]	[1]	[2]	[5]
1	CIAC and accumulated amortization per Company	<u>(\$28,751,452)</u>	<u>\$12,976,912</u>	<u>(\$15,774,540)</u>	<u>(\$28,751,452)</u>	<u>\$13,602,374</u>	<u>(\$15,149,078)</u>	<u>(\$28,751,452)</u>	<u>\$14,227,836</u>	<u>(\$14,523,616)</u>
2	Public Staff Base Year CIAC and A/A of CIAC	(28,751,452)	12,295,636	(16,455,816) [3]			-			-
3	Adjustment to include Public Staff Rate Year 1 CIAC amortization expenses		990,315	990,315 [3]			-			-
4	Public Staff RY1 CIAC and A/A of CIAC			-	(28,751,452)	13,285,952	(15,465,500) [3]			-
5	Adjustment to include Public Staff Rate Year 2 CIAC amortization expenses			-		625,462	625,462 [3]			-
6	Public Staff RY2 CIAC and A/A of CIAC			-			-	(28,751,452)	13,911,414	(14,840,038) [3]
7	Adjustment to include Public Staff Rate Year 3 CIAC amortization expenses			-			-		625,462	625,462 [3]
8	CIAC and AA of CIAC per Public Staff (Sum L2 thr L 7)	<u>(28,751,452)</u>	<u>13,285,952</u>	<u>(15,465,500)</u>	<u>(28,751,452)</u>	<u>13,911,414</u>	<u>(14,840,038)</u>	<u>(28,751,452)</u>	<u>14,536,876</u>	<u>(14,214,576)</u>
9	Adjustment to CIAC and AA of CIAC (L8-L1)	<u>(0)</u>	<u>309,040</u>	<u>309,039</u>	<u>(0)</u>	<u>309,040</u>	<u>309,039</u>	<u>(0)</u>	<u>309,040</u>	<u>309,040</u>

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

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

[3] Per Public Staff's Calculation

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

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

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Det D5 2022

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
**ADJUSTMENT TO CONTRIBUTIONS IN AID OF
CONSTRUCTION, NET OF AMORTIZATION**
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 2-4(c)

Line No.		Item	Rate Year 1			Rate Year 2			Rate Year 3		
			CIAC	Accumulated	CIAC, Net of	CIAC	Accumulated	CIAC, Net of	CIAC	Accumulated	CIAC, Net of
			(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
1		CIAC and accumulated amortization per Company	<u>(\$2,376,816)</u>	<u>\$1,340,617</u>	<u>(\$1,036,199)</u>	<u>(\$2,376,816)</u>	<u>\$1,398,324</u>	<u>(\$978,492)</u>	<u>(\$2,376,816)</u>	<u>\$1,456,031</u>	<u>(\$920,785)</u>
2		Public Staff Base Year CIAC and A/A of CIAC	(2,376,816)	1,294,853	(1,081,963) [3]			-			-
3		Adjustment to include Public Staff Rate Year 1 CIAC amortization expenses		91,369	91,369 [3]			-			-
4		Public Staff RY1 CIAC and A/A of CIAC			-	(2,376,816)	1,386,222	(990,594) [3]			-
5		Adjustment to include Public Staff Rate Year 2 CIAC amortization expenses			0		57,707	57,707 [3]			0
6		Public Staff RY2 CIAC and A/A of CIAC			0			0	(2,376,816)	1,443,929	(932,887) [3]
7		Adjustment to include Public Staff Rate Year 3 CIAC amortization expenses	<u>0</u>		<u>0</u>			<u>0</u>	<u>0</u>	<u>57,707</u>	<u>57,707</u> [3]
8		CIAC and AA of CIAC per Public Staff (Sum L2 thr L 7)	<u>(2,376,816)</u>	<u>1,386,222</u>	<u>(990,594)</u>	<u>(2,376,816)</u>	<u>1,443,929</u>	<u>(932,887)</u>	<u>(2,376,816)</u>	<u>1,501,636</u>	<u>(875,180)</u>
9		Adjustment to CIAC and AA of CIAC (L8-L1)	<u>(0)</u>	<u>45,605</u>	<u>45,605</u>	<u>(0)</u>	<u>45,605</u>	<u>45,605</u>	<u>(0)</u>	<u>45,605</u>	<u>45,605</u>

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

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

[3] Per Public Staff's Calculation

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

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

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CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
**ADJUSTMENT TO CONTRIBUTIONS IN AID OF
CONSTRUCTION, NET OF AMORTIZATION**
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 2-4(d)

Line No.	Item	Rate Year 1			Rate Year 2			Rate Year 3		
		CIAC	Accumulated	CIAC, Net of	CIAC	Accumulated	CIAC, Net of	CIAC	Accumulated	CIAC, Net of
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
1	CIAC and accumulated amortization per Company	<u>(\$7,106,629)</u>	<u>\$3,627,177</u>	<u>(\$3,479,452)</u>	<u>(\$7,106,629)</u>	<u>\$3,777,812</u>	<u>(\$3,328,817)</u>	<u>(\$7,106,629)</u>	<u>\$3,928,447</u>	<u>(\$3,178,182)</u>
2	Public Staff Base Year CIAC and A/A of CIAC	(7,106,629)	3,469,561	(3,637,068) [3]			-			-
3	Adjustment to include Public Staff Rate Year 1 CIAC amortization expenses		238,506	238,506 [3]			-			-
4	Public Staff RY1 CIAC and A/A of CIAC			-	(7,106,629)	3,708,067	(3,398,562) [3]			-
5	Adjustment to include Public Staff Rate Year 2 CIAC amortization expenses			0		150,635	150,635 [3]			0
6	Public Staff RY2 CIAC and A/A of CIAC			0			0	(7,106,629)	3,858,702	(3,247,927) [3]
7	Adjustment to include Public Staff Rate Year 3 CIAC amortization expenses	<u>0</u>		<u>0</u>	<u>0</u>		<u>0</u>		<u>150,635</u>	<u>150,635</u> [3]
8	CIAC and AA of CIAC per Public Staff (Sum L2 thr L 7)	<u>(7,106,629)</u>	<u>3,708,067</u>	<u>(3,398,562)</u>	<u>(7,106,629)</u>	<u>3,858,702</u>	<u>(3,247,927)</u>	<u>(7,106,629)</u>	<u>4,009,337</u>	<u>(3,097,292)</u>
9	Adjustment to CIAC and AA of CIAC (L8-L1)	<u>0</u>	<u>80,890</u>	<u>80,890</u>	<u>0</u>	<u>80,890</u>	<u>80,890</u>	<u>0</u>	<u>80,890</u>	<u>80,890</u>

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

CAROLINA WATER SERVICE, INC. OF NC
Docket No. W-354, Sub 400
**CALCULATION OF ACCUMULATED DEFERRED
INCOME TAXES**
For The Test Year Ended March 31, 2022

Public Staff WSIP Exhibit 1
Schedule 2-5

Line No.	Item	Total ADIT Per Updates [1] (a)	Public Staff Adjustments [2] (b)	Amount To Be Allocated Per Public Staff [3] (c)	CWSNC Uniform Water (d)	CWSNC Uniform Sewer (e)	BF/FH/TC Water [7] (f)	BF/FH Sewer [7] (g)
1	ACCUM DEF INCOME TAX-FED	\$603,395	\$0	\$603,395	\$327,979	\$195,674	\$39,406	\$40,336
2	DEF FED TAX - CIAC PRE 19	0	0	0	0	0	0	0
3	DEF FED TAX - TAP FEE POS	2,650,562	0	2,650,562	1,440,730	859,548	173,100	177,185
4	DEF FED TAX - RATE CASE	(346,316)	156,020	(190,296) [4]	(103,435) [8]	(61,711) [8]	(12,429) [8]	(12,721) [8]
5	DEF FED TAX - DEF MAINT	(190,812)	(234,049)	(424,861) [4]	(202,359) [9]	(182,472) [9]	(23,870) [9]	(16,160) [9]
6	DEF FED TAX - ORGN EXP	(217,030)	0	(217,030)	(117,968)	(70,380)	(14,174)	(14,508)
7	DEF FED TAX - BAD DEBT	245,405	0	245,405	133,391	79,582	16,027	16,405
8	DEF FED TAX - Post TY Plant Additions	0	(23,048)	(23,048) [5]	(11,098) [10]	(9,904) [10]	(630) [10]	(1,416) [10]
9	DEF FED TAX - DEPRECIATIO	(11,730,213)	0	(11,730,213)	(5,648,397)	(5,040,580)	(320,551)	(720,684)
10	DEF FED TAX - NOL	3,469,797	0	3,469,797	1,765,314	1,346,062	148,936	209,485
11	Total Federal ADIT (Sum of L1 thru L10)	(5,515,211)	(101,077)	(5,616,288)	(2,415,843)	(2,884,181)	5,815	(322,078)
12	ACCUM DEF INCOME TAX - ST	(376,048)	0	(376,048)	(204,403)	(\$121,948)	(\$24,558)	(\$25,138)
13	DEF ST TAX - CIAC PRE 198	0	0	0	0	0	0	0
14	DEF ST TAX - TAP FEE POS	56,220	0	56,220	30,559	18,231	3,672	3,758
15	DEF ST TAX - RATE CASE	(53,036)	29,801	(23,235) [6]	(12,629) [8]	(7,535) [8]	(1,518) [8]	(1,553) [8]
16	DEF ST TAX - DEF MA NT	(22,696)	(29,180)	(51,876) [6]	(24,708) [9]	(22,280) [9]	(2,915) [9]	(1,973) [9]
17	DEF ST TAX - ORGN EXP	(60,379)	0	(60,379)	(32,819)	(19,580)	(3,943)	(4,036)
18	DEF ST TAX - BAD DEBT	(3,894)	0	(3,894)	(2,116)	(1,263)	(254)	(260)
19	DEF ST TAX - Post TY Plant Additions	0	(2,814)	(2,814) [5]	(1,355) [10]	(1,209) [10]	(77) [10]	(173) [10]
20	DEF ST TAX - DEPRECIATION	(122,431)	0	(122,431)	(58,954)	(52,610)	(3,346)	(7,522)
21	DEF ST TAX - NOL	(49,329)	0	(49,329)	(25,097)	(19,137)	(2,117)	(2,978)
22	Total State ADIT (Sum of L12 thru L21)	(631,593)	(2,193)	(633,786)	(331,523)	(227,330)	(35,056)	(39,875)
23	Total Direct ADIT (L11 + L22)	(6,146,805)	(103,270)	(6,250,075)	(2,747,365)	(3,111,511)	(29,241)	(361,953)
24	ADIT allocated from WSC	(2,335)		(2,335)	(1,269)	(757)	(152)	(156)
25	Total ADIT (L23 + L24)	(6,149,140)	(103,270)	(6,252,410)	(2,748,634)	(3,112,268)	(29,393)	(362,109)
26	Excess deferred income tax	0	0	0	0	0	0	0
27	Total ADIT, after EDIT impact	(\$6,149,140)	(\$103,270)	(\$6,252,410)	(\$2,748,634)	(\$3,112,268)	(\$29,393)	(\$362,109)

- [1] Form W-1, tem 10, Supplemental Schedules.
[2] Column (c) minus Column (a), unless otherwise footnoted.
[3] Column (a) plus Column (b), unless otherwise footnoted.
[4] Total unamortized balance per Public Staff multiplied by federal income tax rate of 21%.
[5] Calculated ADIT impact based on Post TY Additions.
[6] Total unamortized balance per Public Staff multiplied by state income tax rate of 2.5%.
[7] Column (c) allocated based on customers, unless otherwise footnoted.
[8] Column (c) allocated based on unamortized rate case expense.
[9] Column (c) allocated based on unamortized deferred maintenance.
[10] Column (c) allocated based on Post TY Additions.

CAROLINA WATER SERVICE, INC. OF NC
Docket No. W-354, Sub 400
**CALCULATION OF ACCUMULATED DEFERRED
INCOME TAXES**
For The Rate Year Ended March 31, 2024

Public Staff WS P Exhibit 1
Schedule 2-5(a)

Line No.	Item	Total ADIT Per PS BY	[1] Public Staff Adjustments [2]	RY1 Amount To Be Allocated Per Public Staff [3]	CWSNC Uniform Water	CWSNC Uniform Sewer	BF/FH/TC Water [7]	BF/FH Sewer [7]
		(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	ACCUM DEF INCOME TAX-FED	\$603,395	\$0	\$603,395	\$327,979	\$195,674	\$39,406	\$40,336
2	DEF FED TAX - CIAC PRE 19	0	0	0	0	0	0	0
3	DEF FED TAX - TAP FEE POS	2,650,562	0	2,650,562	1,440,730	859,548	173,100	177,185
4	DEF FED TAX - RATE CASE	(190,296)	47,574	(142,722) [4]	(77,576) [8]	(46,283) [8]	(9,322) [8]	(9,541) [8]
5	DEF FED TAX - DEF MAINT	(424,861)	(3,177)	(428,038) [4]	(219,145) [9]	(153,969) [9]	(24,686) [9]	(30,238) [9]
6	DEF FED TAX - ORGN EXP	(217,030)	0	(217,030)	(117,968)	(70,380)	(14,174)	(14,508)
7	DEF FED TAX - BAD DEBT	245,405	0	245,405	133,391	79,582	16,027	16,405
8	DEF FED TAX - Post TY Plant Additions	(23,048)	85,553	62,505 [5]	29,243 [10]	27,524 [10]	2,049 [10]	3,689 [10]
9	DEF FED TAX - DEPRECIATIO	(11,730,213)	0	(11,730,213)	(5,487,916)	(5,165,361)	(384,572)	(692,363)
10	DEF FED TAX - NOL	3,469,797	0	3,469,797	1,736,901	1,358,115	153,741	221,040
11	Total Federal ADIT (Sum of L1 thru L10)	(5,616,288)	129,950	(5,486,338)	(2,234,360)	(2,915,550)	(48,431)	(287,995)
12	ACCUM DEF INCOME TAX - ST	(376,048)	0	(376,048)	(204,403)	(\$121,948)	(\$24,558)	(\$25,138)
13	DEF ST TAX - CIAC PRE 198	0	0	0	0	0	0	0
14	DEF ST TAX - TAP FEE POS	56,220	0	56,220	30,559	18,231	3,672	3,758
15	DEF ST TAX - RATE CASE	(23,235)	5,809	(17,426) [6]	(9,472) [8]	(5,651) [8]	(1,138) [8]	(1,165) [8]
16	DEF ST TAX - DEF MA NT	(51,876)	(387)	(52,263) [6]	(26,757) [9]	(18,799) [9]	(3,014) [9]	(3,692) [9]
17	DEF ST TAX - ORGN EXP	(60,379)	0	(60,379)	(32,819)	(19,580)	(3,943)	(4,036)
18	DEF ST TAX - BAD DEBT	(3,894)	0	(3,894)	(2,116)	(1,263)	(254)	(260)
19	DEF ST TAX - Post TY Plant Additions	(2,814)	10,446	7,632 [5]	3,571 [10]	3,361 [10]	250 [10]	450 [10]
20	DEF ST TAX - DEPRECIATION	(122,431)	0	(122,431)	(57,279)	(53,912)	(4,014)	(7,226)
21	DEF ST TAX - NOL	(49,329)	0	(49,329)	(24,693)	(19,308)	(2,186)	(3,142)
22	Total State ADIT (Sum of L12 thru L21)	(633,786)	15,868	(617,918)	(323,409)	(218,869)	(35,185)	(40,451)
23	Total Direct ADIT (L11 + L22)	(6,250,075)	145,818	(6,104,257)	(2,557,770)	(3,134,419)	(83,616)	(328,446)
24	ADIT allocated from WSC	(2,335)		(2,335)	(1,269)	(757)	(152)	(156)
25	Total ADIT (L23 + L24)	(6,252,410)	145,818	(6,106,592)	(2,559,039)	(3,135,176)	(83,768)	(328,602)
26	Excess deferred income tax	0	0	0	0	0	0	0
27	Total ADIT, after EDIT impact	(\$6,252,410)	\$145,818	(\$6,106,592)	(\$2,559,039)	(\$3,135,176)	(\$83,768)	(\$328,602)

- [1] Public Staff Base Year Amounts
[2] Column (c) minus Column (a), unless otherwise footnoted.
[3] Column (a) plus Column (b), unless otherwise footnoted.
[4] Total unamortized balance per Public Staff multiplied by federal income tax rate of 21%.
[5] Calculated ADIT impact based on Post TY Additions.
[6] Total unamortized balance per Public Staff multiplied by state income tax rate of 2.5%.
[7] Column (c) allocated based on customers, unless otherwise footnoted.
[8] Column (c) allocated based on unamortized rate case expense.
[9] Column (c) allocated based on unamortized deferred maintenance.
[10] Column (c) allocated based on Post TY Additions.

CAROLINA WATER SERVICE, INC. OF NC
Docket No. W-354, Sub 400
**CALCULATION OF ACCUMULATED DEFERRED
INCOME TAXES**
For The Rate Year Ended March 31, 2025

Public Staff WSIP Exhibit 1
Schedule 2-5(b)

Line No.	Item	Total ADIT Per Updates [1] (a)	Public Staff Adjustments [2] (b)	Amount To Be Allocated Per Public Staff [3] (c)	CWSNC Uniform Water [4] (d)	CWSNC Uniform Sewer [5] (e)	BF/FH/TC Water [6] (f)	BF/FH Sewer [7] (g)
1	ACCUM DEF INCOME TAX-FED	\$603,395	\$0	\$603,395	\$327,979	\$195,674	\$39,406	\$40,336
2	DEF FED TAX - CIAC PRE 19	-	0	0	0	0	0	0
3	DEF FED TAX - TAP FEE POS	2,650,562	0	2,650,562	1,440,730	859,548	173,100	177,185
4	DEF FED TAX - RATE CASE	(142,722)	47,574	(95,148) [4]	(51,717) [8]	(30,855) [8]	(6,215) [8]	(6,361) [8]
5	DEF FED TAX - DEF MAINT	(428,038)	45,961	(382,077) [4]	(212,231) [9]	(127,944) [9]	(18,551) [9]	(23,350) [9]
6	DEF FED TAX - ORGN EXP	(217,030)	0	(217,030)	(117,968)	(70,380)	(14,174)	(14,508)
7	DEF FED TAX - BAD DEBT	245,405	0	245,405	133,391	79,582	16,027	16,405
8	DEF FED TAX - Post TY Plant Additions	62,505	(57,899)	4,606 [5]	2,141 [10]	1,973 [10]	154 [10]	338 [10]
9	DEF FED TAX - DEPRECIATIO	(11,730,213)	0	(11,730,213)	(5,452,501)	(5,024,205)	(391,818)	(861,688)
10	DEF FED TAX - NOL	3,469,797	0	3,469,797	1,720,081	1,374,972	165,649	209,096
11	Total Federal ADIT (Sum of L1 thru L10)	(5,486,338)	35,636	(5,450,702)	(2,210,096)	(2,741,635)	(36,422)	(462,547)
12	ACCUM DEF INCOME TAX - ST	(376,048)	0	(376,048)	(204,403)	(\$121,948)	(\$24,558)	(\$25,138)
13	DEF ST TAX - CIAC PRE 198	0	0	0	0	0	0	0
14	DEF ST TAX - TAP FEE POS	56,220	0	56,220	30,559	18,231	3,672	3,758
15	DEF ST TAX - RATE CASE	(17,426)	5,808	(11,618) [6]	(6,315) [8]	(3,768) [8]	(759) [8]	(777) [8]
16	DEF ST TAX - DEF MA NT	(52,263)	5,611	(46,652) [6]	(25,914) [9]	(15,622) [9]	(2,265) [9]	(2,851) [9]
17	DEF ST TAX - ORGN EXP	(60,379)	0	(60,379)	(32,819)	(19,580)	(3,943)	(4,036)
18	DEF ST TAX - BAD DEBT	(3,894)	0	(3,894)	(2,116)	(1,263)	(254)	(260)
19	DEF ST TAX - Post TY Plant Additions	7,632	(7,069)	563 [5]	262 [10]	241 [10]	19 [10]	41 [10]
20	DEF ST TAX - DEPRECIATION	(122,431)	0	(122,431)	(56,909)	(52,439)	(4,090)	(8,994)
21	DEF ST TAX - NOL	(49,329)	0	(49,329)	(24,454)	(19,548)	(2,355)	(2,973)
22	Total State ADIT (Sum of L12 thru L21)	(617,918)	4,350	(613,568)	(322,109)	(215,695)	(34,533)	(41,230)
23	Total Direct ADIT (L11 + L22)	(6,104,257)	39,986	(6,064,271)	(2,532,205)	(2,957,330)	(70,955)	(503,777)
24	ADIT allocated from WSC	(2,335)		(2,335)	(1,269)	(757)	(152)	(156)
25	Total ADIT (L23 + L24)	(6,106,592)	39,986	(6,066,606)	(2,533,474)	(2,958,087)	(71,107)	(503,933)
26	Excess deferred income tax	0	0	0	0	0	0	0
27	Total ADIT, after EDIT impact	(\$6,106,592)	\$39,986	(\$6,066,606)	(\$2,533,474)	(\$2,958,087)	(\$71,107)	(\$503,933)

- [1] Public Staff Base Year Amounts
[2] Column (c) minus Column (a), unless otherwise footnoted.
[3] Column (a) plus Column (b), unless otherwise footnoted.
[4] Total unamortized balance per Public Staff multiplied by federal income tax rate of 21%.
[5] Calculated ADIT impact based on Post TY Additions.
[6] Total unamortized balance per Public Staff multiplied by state income tax rate of 2.5%.
[7] Column (c) allocated based on customers, unless otherwise footnoted.
[8] Column (c) allocated based on unamortized rate case expense.
[9] Column (c) allocated based on unamortized deferred maintenance.
[10] Column (c) allocated based on Post TY Additions.

CAROLINA WATER SERVICE, INC. OF NC
Docket No. W-354, Sub 400
**CALCULATION OF ACCUMULATED DEFERRED
INCOME TAXES**
For The Rate Year Ended March 31, 2026

Public Staff WSIP Exhibit 1
Schedule 2-5(c)

Line No.	Item	Total ADIT Per Updates [1] (a)	Public Staff Adjustments [2] (b)	Amount To Be Allocated Per Public Staff [3] (c)	CWSNC Uniform Water [4] (d)	CWSNC Uniform Sewer [5] (e)	BF/FH/TC Water [6] (f)	BF/FH Sewer [7] (g)
1	ACCUM DEF INCOME TAX-FED	\$603,395	\$0	\$603,395	\$327,979	\$195,674	\$39,406	\$40,336
2	DEF FED TAX - CIAC PRE 19	0	0	0	0	0	0	0
3	DEF FED TAX - TAP FEE POS	2,650,562	0	2,650,562	1,440,730	859,548	173,100	177,185
4	DEF FED TAX - RATE CASE	(95,148)	47,574	(47,574) [4]	(25,859) [8]	(15,428) [8]	(3,107) [8]	(3,180) [8]
5	DEF FED TAX - DEF MA NT	(382,077)	66,646	(315,431) [4]	(181,759) [9]	(104,308) [9]	(12,902) [9]	(16,462) [9]
6	DEF FED TAX - ORGN EXP	(217,030)	0	(217,030)	(117,968)	(70,380)	(14,174)	(14,508)
7	DEF FED TAX - BAD DEBT	245,405	0	245,405	133,391	79,582	16,027	16,405
8	DEF FED TAX - Post TY Plant Additions	4,606	(57,977)	(53,371) [5]	(23,793) [10]	(24,110) [10]	(1,715) [10]	(3,754) [10]
9	DEF FED TAX - DEPRECIATIO	(11,730,213)	0	(11,730,213)	(5,229,311)	(5,298,940)	(376,927)	(825,035)
10	DEF FED TAX - NOL	3,469,797	0	3,469,797	1,704,757	1,383,872	166,732	214,436
11	Total Federal ADIT (Sum of L1 thru L10)	(5,450,702)	56,243	(5,394,459)	(1,971,832)	(2,994,490)	(13,560)	(414,577)
12	ACCUM DEF INCOME TAX - ST	(376,048)	0	(376,048)	(204,403)	(\$121,948)	(\$24,558)	(\$25,138)
13	DEF ST TAX - CIAC PRE 198	0	0	0	0	0	0	0
14	DEF ST TAX - TAP FEE POS	56,220	0	56,220	30,559	18,231	3,672	3,758
15	DEF ST TAX - RATE CASE	(11,618)	5,809	(5,809) [6]	(3,157) [8]	(1,884) [8]	(379) [8]	(388) [8]
16	DEF ST TAX - DEF MAINT	(46,652)	8,138	(38,514) [6]	(22,193) [9]	(12,736) [9]	(1,575) [9]	(2,010) [9]
17	DEF ST TAX - ORGN EXP	(60,379)	0	(60,379)	(32,819)	(19,580)	(3,943)	(4,036)
18	DEF ST TAX - BAD DEBT	(3,894)	0	(3,894)	(2,116)	(1,263)	(254)	(260)
19	DEF ST TAX - Post TY Plant Additions	563	(7,079)	(6,516) [5]	(2,905) [10]	(2,944) [10]	(209) [10]	(458) [10]
20	DEF ST TAX - DEPRECIATION	(122,431)	0	(122,431)	(54,580)	(55,306)	(3,934)	(8,611)
21	DEF ST TAX - NOL	(49,329)	0	(49,329)	(24,236)	(19,674)	(2,370)	(3,049)
22	Total State ADIT (Sum of L12 thru L21)	(613,568)	6,868	(606,700)	(315,851)	(217,104)	(33,550)	(40,192)
23	Total Direct ADIT (L11 + L22)	(6,064,271)	63,111	(6,001,160)	(2,287,683)	(3,211,594)	(47,110)	(454,769)
24	ADIT allocated from WSC	(2,335)		(2,335)	(1,269)	(757)	(152)	(156)
25	Total ADIT (L23 + L24)	(6,066,606)	63,111	(6,003,495)	(2,288,952)	(3,212,351)	(47,262)	(454,925)
26	Excess deferred income tax	0	0	0	0	0	0	0
27	Total ADIT, after EDIT impact	(\$6,066,606)	\$63,111	(\$6,003,495)	(\$2,288,952)	(\$3,212,351)	(\$47,262)	(\$454,925)

- [1] Public Staff Base Year Amounts
[2] Column (c) minus Column (a), unless otherwise footnoted.
[3] Column (a) plus Column (b), unless otherwise footnoted.
[4] Total unamortized balance per Public Staff multiplied by federal income tax rate of 21%.
[5] Calculated ADIT impact based on Post TY Additions.
[6] Total unamortized balance per Public Staff multiplied by state income tax rate of 2.5%.
[7] Column (c) allocated based on customers, unless otherwise footnoted.
[8] Column (c) allocated based on unamortized rate case expense.
[9] Column (c) allocated based on unamortized deferred maintenance.
[10] Column (c) allocated based on Post TY Additions.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO PURCHASE ACQUISITION
ADJUSTMENT, NET OF AMORTIZATION
For The Test Year Ended March 31, 2022

Public Staff WSIP Exhibit 1
Schedule 2-6
Page 1 of 2

Line No.	Item	Base Year CWSNC Water Operations			[2]	Base Year CWSNC Sewer Operations			[3]
		PAA (a)	Accumulated Amortization (b)	PAA, Net of Amortization (c)		PAA (d)	Accumulated Amortization (e)	PAA, Net of Amortiza ion (f)	
1	PAA and accumulated amor ization per application	<u>(\$4,221,508)</u>	<u>\$2,436,986</u>	<u>(\$1,784,522)</u>		<u>(\$627,070)</u>	<u>\$1,023,488</u>	<u>\$396,418</u>	
2	Adjustment to include company updates 9.19.2022	(\$1) [1]	\$0	(\$1)		\$0	(\$0)	(\$0)	
3	PAA and accumulated amor ization after adjusted for company updates (L1 + L2)	(\$4,221,509)	\$2,436,986	(\$1,784,523)		(\$627,070)	\$1,023,488	\$396,418	
4	Adjustment to include actual general ledger additions through 8/31/2022	0	42,851 [1]	42,851		0	14,942 [1]	14,942	
5	Adjustment to reflect annual level of amortization	<u>0</u>	<u>18,737</u> [1]	<u>18,737</u>		<u>0</u>	<u>(18,240)</u> [1]	<u>(18,240)</u>	
6	Total adjustment to PAA (L4 + L5)	<u>0</u>	<u>61,588</u>	<u>61,588</u>		<u>0</u>	<u>(3,298)</u>	<u>(3,298)</u>	
7	PAA per Public Staff (L3 + L6)	<u>(\$4,221,509)</u>	<u>\$2,498,574</u>	<u>(\$1,722,935)</u>		<u>(\$627,070)</u>	<u>\$1,020,190</u>	<u>\$393,121</u>	

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

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO PURCHASE ACQUISITION
ADJUSTMENT, NET OF AMORTIZATION
For The Test Year Ended March 31, 2022

Public Staff WSIP Exhibit 1
Schedule 2-6
Page 2 of 2

Line No.	Item	Base Year BF/FH/TC Water Operations			[4]	Base Year BF/FH Sewer Operations			[5]
		PAA (g)	Accumulated Amortization (h)	PAA, Net of Amortization (i)		PAA (j)	Accumulated Amortization (k)	PAA, Net of Amortization (l)	
1	PAA and accumulated amor ization per application	<u>\$607,431</u>	<u>(\$629,079)</u>	<u>(\$21,648)</u>		<u>\$1,680,077</u>	<u>(\$828,094)</u>	<u>\$851,982</u>	
2	Adjustment to include company updates 9.19.2022	1	0	1		0	0	0	
3	PAA and accumulated amor ization after adjusted for company updates (L1 + L2)	\$607,432	(\$629,079)	(\$21,646)		\$1,680,077	(\$828,094)	\$851,982	
4	Adjustment to include actual general ledger additions through 8/31/2022	0	(4,864) [1]	(4,864)		0	(12,596) [1]	(12,596)	
5	Adjustment to reflect annual level of amortization	<u>0</u>	<u>(2,783) [1]</u>	<u>(2,783)</u>		<u>0</u>	<u>(13,117) [1]</u>	<u>(13,117)</u>	
6	Total adjustment to PAA (L4 + L5)	<u>0</u>	<u>(7,647)</u>	<u>(7,647)</u>		<u>0</u>	<u>(25,713)</u>	<u>(25,713)</u>	
7	PAA per Public Staff (L3 + L6)	<u>\$607,432</u>	<u>(\$636,726)</u>	<u>(\$29,293)</u>		<u>\$1,680,077</u>	<u>(\$853,807)</u>	<u>\$826,270</u>	

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

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
**ADJUSTMENT TO PURCHASE ACQUISITION
ADJUSTMENT, NET OF AMORTIZATION**
For The Rate Year 1 - Rate Year 3 Ended March
31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 2-6(a)

Line No.	CWSNC WATER OPERATIONS Item	Rate Year 1			Rate Year 2			Rate Year 3		
		PAA (a)	Accumulated Amortization (b)	PAA, Net of Amortization (c)	PAA (d)	Accumulated Amortization (e)	PAA, Net of Amortization (f)	PAA (g)	Accumulated Amortization (h)	PAA, Net of Amortization (i)
1	PAA and accumulated amortization per Company	<u>(\$4,221,509)</u>	<u>\$2,554,344</u>	<u>(\$1,667,165)</u>	<u>(4,221,509)</u>	<u>\$2,671,702</u>	<u>(\$1,549,807)</u>	<u>(\$4,221,509)</u>	<u>\$2,789,060</u>	<u>(\$1,432,449)</u>
2	Public Staff Base Year PAA and AA of PAA	(4,221,509)	2,498,574	(1,722,935) [3]			-			-
3	Adjustment to include Public Staff Rate Year 1 amortization expense of PAA		194,506	194,506 [3]			-			-
4	Public Staff Rate Year 1 PAA and AA of PAA			-	(4,221,509)	2,693,080	(1,528,429) [3]			-
5	Adjustment to include Public Staff Rate Year 2 amortization expense of PAA			-		121,579	121,579 [3]			-
6	Public Staff Rate Year 2 PAA and AA of PAA			-			-	(4,221,509)	2,814,659	(1,406,850) [3]
7	Adjustment to include Public Staff Rate Year 3 amortization expense of PAA			-			-		122,002	122,002 [3]
8	PAA and AA of PAA per Public Staff (L2 through L7)	<u>(4,221,509)</u>	<u>2,693,080</u>	<u>(1,528,429)</u>	<u>(4,221,509)</u>	<u>2,814,659</u>	<u>(1,406,850)</u>	<u>(4,221,509)</u>	<u>2,936,661</u>	<u>(1,284,848)</u>
9	Adjustment to PAA and AA of PAA (L9-L1)	<u>\$ -</u>	<u>\$ 138,736</u>	<u>\$ 138,736</u>	<u>\$ -</u>	<u>\$ 142,957</u>	<u>\$ 142,957</u>	<u>\$ -</u>	<u>\$ 147,601</u>	<u>\$ 147,601</u>

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

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

[3] Per Public Staff's calculation.

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

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

CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 400

**ADJUSTMENT TO PURCHASE ACQUISITION
ADJUSTMENT, NET OF AMORTIZATION**

For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 2-6(b)

Line No.	CWSNC SEWER OPERATIONS Item	Rate Year 1			Rate Year 2			Rate Year 3		
		PAA	Accumulated	PAA, Net of	PAA	Accumulated	PAA, Net of	PAA	Accumulated	PAA, Net of
		(a) [1]	Amortization (b)	Amortization [2] (c)	(d) [1]	Amortization (e)	Amortization [4] (f)	(g)	Amortization (h)	Amortization [5] (i)
1	PAA and accumulated amortization per Company	<u>(\$627,070)</u>	<u>\$1,040,920</u>	<u>\$413,851</u>	<u>(\$627,070)</u>	<u>\$1,058,353</u>	<u>\$431,283</u>	<u>(\$627,070)</u>	<u>\$1,075,786</u>	<u>\$448,716</u>
2	Public Staff Base Year PAA and AA of PAA	(627,070)	1,020,190	393,121 [3]	-	-	-	-	-	-
3	Adjustment to include Public Staff Rate Year 1 amortization expense of PAA		27,304	27,304 [3]			-			-
4	Public Staff Rate Year 1 PAA and AA of PAA			-	(627,070)	1,047,494	420,424 [3]			-
5	Adjustment to include Public Staff Rate Year 2 amortization expense of PAA			-		17,244	17,244 [3]			-
6	Public Staff Rate Year 2 PAA and AA of PAA			-			-	(627,070)	1,064,738	437,669 [3]
7	Adjustment to include Public Staff Rate Year 3 amortization expense of PAA			-			-		17,119	17,119 [3]
8	PAA and AA of PAA per Public Staff (L2 through L7)	<u>(627,070)</u>	<u>1,047,494</u>	<u>420,424</u>	<u>(627,070)</u>	<u>1,064,738</u>	<u>437,669</u>	<u>(627,070)</u>	<u>1,081,857</u>	<u>454,788</u>
9	Adjustment to PAA and AA of PAA (L9-L1)	<u>\$0</u>	<u>\$6,573</u>	<u>\$6,573</u>	<u>\$0</u>	<u>\$6,385</u>	<u>\$6,385</u>	<u>\$0</u>	<u>\$6,072</u>	<u>\$6,072</u>

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

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

[3] Per Public Staff's calculation.

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

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

CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 400

ADJUSTMENT TO PURCHASE ACQUISITION**ADJUSTMENT, NET OF AMORTIZATION**

For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1

Schedule 2-6(c)

Line No.	BF/FH/TC WATER OPERATIONS	Rate Year 1			Rate Year 2			Rate Year 3		
		PAA	Accumulated	PAA, Net of	PAA	Accumulated	PAA, Net of	PAA	Accumulated	PAA, Net of
		(a)	Amortization (b)	Amortization (c)	(d)	Amortization (e)	Amortization (f)	(g)	Amortization (h)	Amortization (i)
1	PAA and accumulated amortization per Company	<u>\$607,432</u>	<u>(\$644,933)</u>	<u>(\$37,500)</u>	<u>\$607,432</u>	<u>(\$660,786)</u>	<u>(\$53,354)</u>	<u>\$607,432</u>	<u>(\$676,640)</u>	<u>(\$69,208)</u>
2	Public Staff Base Year PAA and AA of PAA	607,432	(636,726)	(29,293) [3]	-	-	-	-	-	-
3	Adjustment to include Public Staff Rate Year 1 amortization expense of PAA		(22,409)	(22,409) [3]			-			-
4	Public Staff Rate Year 1 PAA and AA of PAA			-	607,432	(659,135)	(51,703) [3]			-
5	Adjustment to include Public Staff Rate Year 2 amortization expense of PAA	-	-	-	-	(14,639)	(14,639) [3]	-	-	-
6	Public Staff Rate Year 2 PAA and AA of PAA			-			-	607,432	(673,774)	(66,342) [3]
7	Adjustment to include Public Staff Rate Year 3 amortization expense of PAA	-	-	-	-	-	-	-	(14,518)	(14,518) [3]
8	PAA and AA of PAA per Public Staff (L2 through L7)	<u>607,432</u>	<u>(659,135)</u>	<u>(51,703)</u>	<u>607,432</u>	<u>(673,774)</u>	<u>(66,342)</u>	<u>607,432</u>	<u>(688,292)</u>	<u>(80,859)</u>
9	Adjustment to PAA and AA of PAA (L9-L1)	<u>\$0</u>	<u>(\$14,202)</u>	<u>(14,202)</u>	<u>\$0</u>	<u>(\$12,987)</u>	<u>(12,987)</u>	<u>\$0</u>	<u>(\$11,651)</u>	<u>(11,651)</u>

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

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

[3] Per Public Staff's calculation.

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

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

CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 400

**ADJUSTMENT TO PURCHASE ACQUISITION
ADJUSTMENT, NET OF AMORTIZATION**

For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 2-6(d)

Line No.	BF/FH/TC SEWER OPERATIONS Item	Rate Year 1			Rate Year 2			Rate Year 3		
		PAA (a)	Accumulated Amortization (b)	PAA, Net of Amortization (c) [2]	PAA (d)	Accumulated Amortization (e)	PAA, Net of Amortization (f) [4]	PAA (g)	Accumulated Amortization (h)	PAA, Net of Amortization (i) [5]
1	PAA and accumulated amortization per Company	<u>\$1,680,077</u>	<u>(\$871,944)</u>	<u>\$808,132</u>	<u>\$1,680,077</u>	<u>(\$915,794)</u>	<u>\$764,282</u>	<u>\$1,680,077</u>	<u>(\$959,644)</u>	<u>\$720,432</u>
2	Public Staff Base Year PAA and AA of PAA	1,680,077	(853,807)	826,270 [3]	-	-	-	-	-	-
3	Adjustment to include Public Staff Rate Year 1 amortization expense of PAA		(66,769)	(66,769) [3]			-			-
4	Public Staff Rate Year 1 PAA and AA of PAA			-	1,680,077	(920,576) [3]	759,501			-
5	Adjustment to include Public Staff Rate Year 2 amortization expense of PAA			-		(42,170) [3]	(42,170)			-
6	Public Staff Rate Year 2 PAA and AA of PAA			-			-	1,680,077	(962,746)	717,331 [3]
7	Adjustment to include Public Staff Rate Year 3 amortization expense of PAA	<u>-</u>		<u>-</u>	<u>-</u>		<u>-</u>	<u>-</u>	<u>(41,834)</u>	<u>(41,834) [3]</u>
8	PAA and AA of PAA per Public Staff (L2 through L7)	<u>1,680,077</u>	<u>(920,576)</u>	<u>759,501</u>	<u>1,680,077</u>	<u>(962,746)</u>	<u>717,331</u>	<u>1,680,077</u>	<u>(1,004,580)</u>	<u>675,497</u>
9	Adjustment to PAA and AA of PAA (L9-L1)	<u>-</u>	<u>(\$48,632)</u>	<u>(48,632)</u>	<u>\$0</u>	<u>(\$46,952)</u>	<u>(46,952)</u>	<u>\$0</u>	<u>(\$44,936)</u>	<u>(44,936)</u>

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

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

[3] Per Public Staff's calculation.

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

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

CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 400

CALCULATION OF DEFERRED CHARGES

For The Test Year Ended March 31, 2022

Public Staff WSIP Exhibit 1

Schedule 2-7

Line No.	Item	Base Year			
		CWSNC Water (a)	CWSNC Sewer (b)	BF/FH/TC Water (c)	BF/FH Sewer (d)
1	Unamortized deferred maintenance - water	\$988,322 [1]	\$0	\$116,582 [3]	\$0
2	Unamortized deferred maintenance - sewer	0	891,194 [2]	0	78,925 [4]
3	Unamortized deferred charges per Public Staff (L1 + L2)	<u>\$988,322</u>	<u>\$891,194</u>	<u>\$116,582</u>	<u>\$78,925</u>

[1] Public Staff WSIP Exhibit 1, Schedule 2-9(a), Column (f), Line 5.

[2] Public Staff WSIP Exhibit 1, Schedule 2-9(a), Column (f), Line 7 plus Line 8.

[3] Public Staff WSIP Exhibit 1, Schedule 2-9(a), Column (f), Line 14.

[4] Public Staff WSIP Exhibit 1, Schedule 2-9(a), Column (f), Line 17.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
CALCULATION OF DEFERRED CHARGES
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 2-7(a)

CWSNC WATER OPERATIONS

Line No.	Item	<u>Rate Year 1</u> (a)	<u>Rate Year 2</u> (b)	<u>Rate Year 3</u> (c)
1	Unamortized deferred maintenance - water	\$1,070,304 [1]	\$1,036,537 [2]	\$887,711 [3]
2	Unamortized deferred maintenance - sewer	<u>0</u>	<u>0</u>	<u>0</u>
3	Unamortized deferred charges per Public Staff (L1 + L2)	<u>\$1,070,304</u>	<u>\$1,036,537</u>	<u>\$887,711</u>

[1] Public Staff WSIP Exhibit 1, Schedule 2-8(a), Column (f), Line 5.

[2] Public Staff WSIP Exhibit 1, Schedule 2-8(b), Column (f), Line 5.

[3] Public Staff WSIP Exhibit 1, Schedule 2-8(c), Column (f), Line 5.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
CALCULATION OF DEFERRED CHARGES
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 2-7(b)

CWSNC SEWER OPERATIONS

Line No.	<u>Item</u>	<u>Rate Year 1</u>	<u>Rate Year 2</u>	<u>Rate Year 3</u>
		(a)	(b)	(c)
1	Unamortized deferred maintenance - water	\$0	\$0	\$0
2	Unamortized deferred maintenance - sewer	751,987 [1]	624,881 [2]	509,438 [3]
3	Unamortized deferred charges per Public Staff (L1 + L2)	<u>\$751,987</u>	<u>\$624,881</u>	<u>\$509,438</u>

[1] Public Staff WSIP Exhibit 1, Schedule 2-8(a), Column (f), Line 7 plus Line 8.

[2] Public Staff WSIP Exhibit 1, Schedule 2-8(b), Column (f), Line 7 plus Line 8.

[3] Public Staff WSIP Exhibit 1, Schedule 2-8(c), Column (f), Line 7 plus Line 8.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
CALCULATION OF DEFERRED CHARGES
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 2-7(c)

BF/FH/TC WATER OPERATIONS

Line No.	<u>Item</u>	<u>Rate Year 1</u> (a)	<u>Rate Year 2</u> (b)	<u>Rate Year 3</u> (c)
1	Unamortized deferred maintenance - water	\$120,567 [1]	\$90,605 [2]	\$63,013 [3]
2	Unamortized deferred maintenance - sewer	<u>0</u>	<u>0</u>	<u>0</u>
3	Unamortized deferred charges per Public Staff (L1 + L2)	<u>\$120,567</u>	<u>\$90,605</u>	<u>\$63,013</u>

[1] Public Staff WSIP Exhibit 1, Schedule 2-8(a), Column (f), Line 14.

[2] Public Staff WSIP Exhibit 1, Schedule 2-8(b), Column (f), Line 14.

[3] Public Staff WSIP Exhibit 1, Schedule 2-8(c), Column (f), Line 14.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
CALCULATION OF DEFERRED CHARGES
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 2-7(d)

BF/FH/TC SEWER OPERATIONS

Line No.	<u>Item</u>	<u>Rate Year 1</u> (a)	<u>Rate Year 2</u> (b)	<u>Rate Year 3</u> (c)
1	Unamortized deferred maintenance - water	\$0	\$0	\$0
2	Unamortized deferred maintenance - sewer	<u>147,682</u> [1]	<u>114,042</u> [2]	<u>80,402</u> [3]
3	Unamortized deferred charges per Public Staff (L1 + L2)	<u><u>\$147,682</u></u>	<u><u>\$114,042</u></u>	<u><u>\$80,402</u></u>

- [1] Public Staff WSIP Exhibit 1, Schedule 2-8(a), Column (f), Line 17.
[2] Public Staff WSIP Exhibit 1, Schedule 2-8(b), Column (f), Line 17.
[3] Public Staff WSIP Exhibit 1, Schedule 2-8(c), Column (f), Line 17.

CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 400

CALCULATION OF DEFERRED MAINTENANCE

For The Test Year Ended March 31, 2022

Public Staff WSIP Exh bit 1

Schedule 2-8

Item	Base Year						Unamortized Balance [4]
	Total Cost Per Public Staff [1]	Amortization Period In Years [1]	Date Amortization Began [1]	Annual Amortization [2]	Accumulated Amortization [3]		
	(a)	(b)	(c)	(d)	(e)	(f)	
<u>Deferred maintenance - CWSNC Uniform Water</u>							
Deferred elevated storage tank painting	\$ 781,597	10	Various	\$ 78,160	\$ 677,588	\$ 104,009	
Deferred hydro storage tank painting	586,086	5	Various	117,217	515,660	70,426	
Deferred hydro storage tank inspection	981,963	5	Various	196,393	803,856	178,107	
Fusion Oracle ERP	915,162	9	Various	102,635	279,382	635,780	
Total deferred maintenance - water (Sum of L1 thru L4)	3,264,808			494,405	2,276,485	988,322	
<u>Deferred maintenance - CWSNC Uniform Sewer</u>							
Belvedere pump and haul	3,424,839	10	Various	342,484	3,259,312	165,527	
WWTP	1,065,076	5	Various	213,015	551,467	513,609	
Fusion Oracle ERP	543,508	9	Various	60,390	165,923	377,585	
Total deferred maintenance - sewer (L6 + L7 + L8)	5,033,423			615,889	3,976,702	1,056,721	
<u>Deferred maintenance - BF/FH/TC Water</u>							
Deferred elevated storage tank painting	66,028	10	Various	6,603	37,416	28,612	
Deferred hydro storage tank painting	36,500	5	Various	7,300	36,500	-	
Deferred hydro storage tank inspection	62,089	5	Various	12,418	51,306	10,783	
Fusion Oracle ERP	111,106	9	Various	12,345	33,919	77,188	
Total deferred maintenance - water (Sum of L10 thru L13)	275,723			38,666	159,141	116,582	
<u>Deferred maintenance - BF/FH Sewer</u>							
WWTP	110,492	5	Various	22,098	110,492	-	
Fusion Oracle ERP	113,608	9	Various	12,623	34,682	78,925	
Total deferred maintenance - sewer (L15 + L16)	224,099			34,721	145,174	78,925	
Total deferred maintenance (L5 + L9 +L14 +L17)	\$ 8,798,054			\$ 1,183,681	\$ 6,557,503	\$ 2,240,551	

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

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

[3] Total monthly amortization through March 31, 2022.

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

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
CALCULATION OF DEFERRED MAINTENANCE
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WS P Exhibit 1
Schedule 2-8(a)

Line No.	Item	Rate Year 1					
		Total Cost Per Public Staff	Amortization Period In Years	Date Amortization Began	Annual Amortization	Accumulated Amortization	Unamortized Balance
		(a)	[1] (b)	[1] (c)	[1] (d)	[2] (e)	[3] (f)
	<u>Deferred maintenance - CWSNC Uniform Water</u>						
1	Deferred elevated storage tank painting	1,136,696.67	10	Various	\$113,670	742,236.54	\$394,460
2	Deferred hydro storage tank painting	605,166	5	Various	121,033	548,739	56,427
3	Deferred hydro storage tank inspection	981,963	5	Various	196,393	892,311	89,652
4	Fusion Oracle ERP	915,162	9	Various	102,635	385,397	529,765
5	Total deferred maintenance - water (Sum of L1 thru L4)	<u>3,638,988</u>			<u>533,731</u>	<u>2,568,684</u>	<u>1,070,304</u>
	<u>Deferred maintenance - CWSNC Uniform Sewer</u>						
6	Belvedere pump and haul	3,424,839	10	Various	342,484	3,352,851	71,989
7	WWTP	1,111,295	5	Various	222,259	673,932	437,363
8	Fusion Oracle ERP	543,508	9	Various	60,390	228,884	314,624
9	Total deferred maintenance - sewer (L6 + L7 + L8)	<u>5,079,642</u>			<u>625,133</u>	<u>4,255,666</u>	<u>823,976</u>
	<u>Deferred maintenance - BF/FH/TC Water</u>						
10	Deferred elevated storage tank painting	66,028	10	Various	6,603	44,019	22,009
11	Deferred hydro storage tank painting	75,190	5	Various	15,038	44,238	30,952
12	Deferred hydro storage tank inspection	62,089	5	Various	12,418	58,800	3,289
13	Fusion Oracle ERP	111,106	9	Various	12,345	46,789	64,317
14	Total deferred maintenance - water (Sum of L10 thru L13)	<u>314,413</u>			<u>46,404</u>	<u>193,846</u>	<u>120,567</u>
	<u>Deferred maintenance - BF/FH Sewer</u>						
15	WWTP	212,888	5	Various	42,578	130,971	81,917
16	Fusion Oracle ERP	113,608	9	Various	12,623	47,843	65,765
17	Total deferred maintenance - sewer (L15 + L16)	<u>326,495</u>			<u>55,201</u>	<u>178,814</u>	<u>147,682</u>
18	Total deferred maintenance (L5 + L9 +L14 +L17)	<u>\$9,359,538</u>			<u>\$1,260,469</u>	<u>\$7,197,010</u>	<u>\$2,162,528</u>

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
CALCULATION OF DEFERRED MAINTENANCE
For The Test Year Ended March 31, 2025

Public Staff WSIP Exhibit 1
Schedule 2-8(b)

Line No.	Item	Total Cost Per Public Staff	Amortization Period In Years	Date Amortization Began	Rate Year 2		Accumulated Amortization	Unamortized Balance
					Annual Amortization			
		(a)	(b)	(c)	(d)	(e)	(f)	(g)
	<u>Deferred maintenance - CWSNC Uniform Water</u>							
1	Deferred elevated storage tank painting	1,236,697	10	Various	\$123,670	813,425.75	\$423,271	
2	Deferred hydro storage tank painting	624,786	5	Various	124,957	574,166	50,620	
3	Deferred hydro storage tank inspection	1,104,441	5	Various	220,888	965,545	138,896	
4	Fusion Oracle ERP	915,162	9	Various	102,635	491,411	423,751	
5	Total deferred maintenance - water (Sum of L1 thru L4)	<u>3,881,085</u>			<u>572,150</u>	<u>2,844,548</u>	<u>1,036,537</u>	
	<u>Deferred maintenance - CWSNC Uniform Sewer</u>							
6	Belvedere pump and haul	3,424,839	10	Various	342,484	3,408,308	16,531	
7	WWTP	1,111,295	5	Various	222,259	738,077	373,218	
8	Fusion Oracle ERP	543,508	9	Various	60,390	291,845	251,662	
9	Total deferred maintenance - sewer (L6 + L7 + L8)	<u>5,079,642</u>			<u>625,133</u>	<u>4,438,230</u>	<u>641,412</u>	
	<u>Deferred maintenance - BF/FH/TC Water</u>							
10	Deferred elevated storage tank painting	66,028	10	Various	6,603	50,621	15,406	
11	Deferred hydro storage tank painting	75,190	5	Various	15,038	51,976	23,214	
12	Deferred hydro storage tank inspection	62,089	5	Various	12,418	61,551	538	
13	Fusion Oracle ERP	111,106	9	Various	12,345	59,660	51,446	
14	Total deferred maintenance - water (Sum of L10 thru L13)	<u>314,413</u>			<u>46,404</u>	<u>223,809</u>	<u>90,605</u>	
	<u>Deferred maintenance - BF/FH Sewer</u>							
15	WWTP	212,888	5	Various	42,578	151,450	61,438	
16	Fusion Oracle ERP	113,608	9	Various	12,623	61,004	52,604	
17	Total deferred maintenance - sewer (L15 + L16)	<u>326,495</u>			<u>55,201</u>	<u>212,454</u>	<u>114,042</u>	
18	Total deferred maintenance (L5 + L9 + L14 + L17)	<u>\$9,601,636</u>			<u>\$1,298,888</u>	<u>\$7,719,040</u>	<u>\$1,882,596</u>	

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
CALCULATION OF DEFERRED MAINTENANCE
For The Test Year Ended March 31, 2026

Public Staff WS P Exhibit 1
Schedule 2-8(c)

Line No.	Item	Total Cost Per Public Staff [1]	Amortization Period In Years [1]	Rate Year 3		Annual Amortization [2]	Accumulated Amortization [3]	Unamortized Balance [4]
				Date Amortization Began [1]				
		(a)	(b)	(c)		(d)	(e)	(f)
<u>Deferred maintenance - CWSNC Uniform Water</u>								
1	Deferred elevated storage tank painting	1,336,697	10	Various		\$133,670	894,614.96	\$442,082
2	Deferred hydro storage tank painting	644,946	5	Various		128,989	602,572	42,374
3	Deferred hydro storage tank inspection	1,104,441	5	Various		220,888	1,018,921	85,520
4	Fusion Oracle ERP	915,162	9	Various		102,635	597,426	317,736
5	Total deferred maintenance - water (Sum of L1 thru L4)	4,001,245				586,182	3,113,534	887,711
<u>Deferred maintenance - CWSNC Uniform Sewer</u>								
6	Belvedere pump and haul	3,424,839	10	Various		342,484	3,424,653	186
7	WWTP	1,111,295	5	Various		222,259	790,558	320,737
8	Fusion Oracle ERP	543,508	9	Various		60,390	354,807	188,701
9	Total deferred maintenance - sewer (L6 + L7 + L8)	5,079,642				625,133	4,570,017	509,624
<u>Deferred maintenance - BF/FH/TC Water</u>								
10	Deferred elevated storage tank painting	66,028	10	Various		6,603	57,224	8,804
11	Deferred hydro storage tank painting	75,190	5	Various		15,038	59,714	15,476
12	Deferred hydro storage tank inspection	62,089	5	Various		12,418	61,931	158
13	Fusion Oracle ERP	111,106	9	Various		12,345	72,531	38,575
14	Total deferred maintenance - water (Sum of L10 thru L13)	314,413				46,404	251,400	63,013
<u>Deferred maintenance - BF/FH Sewer</u>								
15	WWTP	212,888	5	Various		42,578	171,929	40,958
16	Fusion Oracle ERP	113,608	9	Various		12,623	74,164	39,444
17	Total deferred maintenance - sewer (L15 + L16)	326,495				55,201	246,093	80,402
18	Total deferred maintenance (L5 + L9 +L14 +L17)	\$9,721,796				\$1,312,920	\$8,181,045	\$1,540,751

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
NET OPERATING INCOME FOR A RETURN
For The Test Year Ended March 31, 2022

Public Staff WS P Exhibit 1
Schedule 3(a)
Page 1 of 2

Line No.	Item	Base Year			Base Year			Base Year		
		Present Rates			Company Proposed Rates			Public Staff Recommended Rates		
		Amount Per	Public Staff	Amount Per	Net	Operations		Net	Operations	
		Updates	Adjustments [1]	Public Staff [2]	Company Increase [25]	After Rate Increase [26]		Public Staff Increase [32]	After Rate Increase [33]	
		(a)	(b)	(c)	(d)	(e)		(f)	(g)	
<u>Operating Revenues</u>										
1	Service revenues	\$22,816,174	(\$539,469)	\$22,276,705 [3]	\$1,629,378	\$23,906,083 [3]		\$421,023	\$22,697,728 [34]	
2	Miscellaneous revenues	90,390	81,555	171,946 [4]	4,621	176,567 [27]		1,194	173,140 [35]	
3	Uncollectible accounts	(222,895)	60,303	(162,592) [5]	(11,893)	(174,485) [28]		(3,073)	(165,665) [36]	
4	Total operating revenues (Sum of L1 thru L3)	22,683,669	(397,611)	22,286,059	1,622,106	23,908,165		419,144	22,705,203	
<u>Maintenance Expenses</u>										
5	Purchased power	1,073,063	(2,205)	1,070,858 [6]	0	1,070,858		0	1,070,858	
6	Purchased water	1,665,457	0	1,665,457	0	1,665,457		0	1,665,457	
7	Maintenance and repair	1,201,678	(6,052)	1,195,626 [7]	0	1,195,626		0	1,195,626	
8	Maintenance testing	195,388	0	195,388	0	195,388		0	195,388	
9	Meter reading	229,336	(6,724)	222,612 [8]	0	222,612		0	222,612	
10	Chemicals	395,379	(64,548)	330,832 [9]	0	330,832		0	330,832	
11	Transportation	280,606	6,486	287,092 [10]	0	287,092		0	287,092	
12	Operating expenses charged to plant	(450,858)	(6,859)	(457,717) [11]	0	(457,717)		0	(457,717)	
13	Outside services - other	124,388	(11,230)	113,158 [12]	0	113,158		0	113,158	
14	Total maintenance expenses (Sum of L5 thru L14)	4,714,438	(91,132)	4,623,305	0	4,623,305		0	4,623,305	
<u>General Expenses</u>										
15	Salaries and wages	3,949,931	(77,887)	3,872,044 [13]	0	3,872,044		0	3,872,044	
16	Office supplies and other office expense	319,242	0	319,242	0	319,242		0	319,242	
17	Regulatory commission expense	400,430	(271,617)	128,813 [14]	0	128,813		0	128,813	
18	Pension and other benefits	976,152	(39,702)	936,450 [15]	0	936,450		0	936,450	
19	Rent	211,794	0	211,794	0	211,794		0	211,794	
20	Insurance	714,402	37,705	752,107 [16]	0	752,107		0	752,107	
21	Office utilities	180,673	(0)	180,673	0	180,673		0	180,673	
22	Miscellaneous	2,969,417	(181,190)	2,788,227 [17]	0	2,788,227		0	2,788,227	
23	Total general expenses (Sum of L16 thru L23)	9,722,041	(532,691)	9,189,350	0	9,189,350		0	9,189,350	
<u>Depreciation and Taxes</u>										
24	Depreciation expense	4,035,064	(656,276)	3,378,788 [18]	0	3,378,788		0	3,378,788	
25	Amortization of CIAC	(733,560)	0	(733,560)	0	(733,560)		0	(733,560)	
26	Amortization of PAA	(117,358)	(4,221)	(121,579) [19]	0	(121,579)		0	(121,579)	
27	Amortization of ITC	(265)	0	(265)	0	(265)		0	(265)	
28	Franchise and other taxes	56,486	0	56,486	0	56,486		0	56,486	
29	Property taxes	135,969	0	135,969	0	135,969		0	135,969	
30	Payroll taxes	304,405	(6,480)	297,925 [20]	0	297,925		0	297,925	
31	Regulatory fee	32,392	(1,192)	31,200 [21]	2,271	33,471 [29]		587	31,787 [37]	
32	Deferred Income Tax	0	(64,882)	(64,882) [22]	0	(64,882)		0	(64,882)	
33	State income tax	122,738	(28,352)	94,386 [23]	40,496	134,882 [30]		10,464	104,850 [38]	
34	Federal income tax	1,005,225	(232,204)	773,021 [24]	331,662	1,104,683 [31]		85,700	858,721 [39]	
35	Total depreciation and taxes (Sum of L25 thru L35)	4,841,096	(993,607)	3,847,489	374,429	4,221,918		96,751	3,944,240	
36	Total operating revenue deductions (L15 + L24 + L36)	19,277,574	(1,617,430)	17,660,144	374,429	18,034,573		96,751	17,756,895	
37	Net operating income for a return (L4 - L37)	\$3,406,095	\$1,219,819	\$4,625,914	\$1,247,677	\$5,873,591		\$322,393	\$4,948,307	

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
NET OPERATING INCOME FOR A RETURN
For The Test Year Ended March 31, 2022

Public Staff WS P Exhibit 1
Schedule 3(b)
Page 1 of 2

CWSNC SEWER OPERATIONS			Base Year		Base Year		Base Year	
Line No.	Item	Present Rates		Company Proposed Rates		Public Staff Recommended Rates		
		Amount Per Updates	Public Staff Adjustments [1]	Amount Per Public Staff [2]	Net Company Increase [24]	Operations After Rate Increase [25]	Net Public Staff Increase [31]	Operations After Rate Increase [32]
		(a)	(b)	(c)	(d)	(e)	(f)	(g)
<u>Operating Revenues</u>								
1	Service revenues	\$17,559,952	(\$573,835)	\$16,986,117 [3]	\$1,706,482	\$18,692,599 [3]	\$1,232,445	\$18,218,562 [33]
2	Miscellaneous revenues	73,544	56,472	130,016 [4]	4,572	134,588 [26]	3,302	133,318 [34]
3	Uncollectible accounts	(171,546)	99,560	(71,986) [5]	(7,232)	(79,218) [27]	(5,223)	(77,209) [35]
4	Total operating revenues (Sum of L1 thru L3)	17,461,951	(417,803)	17,044,147	1,703,822	18,747,969	1,230,524	18,274,671
<u>Maintenance Expenses</u>								
5	Purchased power	838,500	(22,345)	816,155 [6]	0	816,155	0	816,155
6	Purchased sewer	1,048,540	0	1,048,540	0	1,048,540	0	1,048,540
7	Maintenance and repair	1,662,107	97,964	1,760,071 [7]	0	1,760,071	0	1,760,071
8	Maintenance testing	305,558	0	305,558	0	305,558	0	305,558
9	Meter reading	3,024	0	3,024	0	3,024	0	3,024
10	Chemicals	587,472	(11,593)	575,879 [8]	0	575,879	0	575,879
11	Transportation	167,411	3,869	171,280 [9]	0	171,280	0	171,280
12	Operating expenses charged to plant	(268,985)	(4,092)	(273,077) [10]	0	(273,077)	0	(273,077)
13	Outside services - other	74,211	(6,701)	67,510 [11]	0	67,510	0	67,510
14	Total maintenance expenses (Sum of L5 thru L14)	4,417,838	57,103	4,474,940	0	4,474,940	0	4,474,940
<u>General Expenses</u>								
15	Salaries and wages	2,356,552	(46,468)	2,310,084 [12]	0	2,310,084	0	2,310,084
16	Office supplies and other office expense	190,462	0	190,462	0	190,462	0	190,462
17	Regulatory commission expense	238,899	(162,047)	76,852 [13]	0	76,852	0	76,852
18	Pension and other benefits	582,378	(23,686)	558,692 [14]	0	558,692	0	558,692
19	Rent	126,358	0	126,358	0	126,358	0	126,358
20	Insurance	426,217	22,495	448,712 [15]	0	448,712	0	448,712
21	Office utilities	106,857	(0)	106,857	0	106,857	0	106,857
22	Miscellaneous	1,711,160	(27,805)	1,683,355 [16]	0	1,683,355	0	1,683,355
23	Total general expenses (Sum of L16 thru L23)	5,738,882	(237,510)	5,501,372	0	5,501,372	0	5,501,372
<u>Depreciation and Taxes</u>								
24	Depreciation expense	3,456,269	(390,927)	3,065,342 [17]	0	3,065,342	0	3,065,342
25	Amortization of CIAC	(625,462)	0	(625,462)	0	(625,462)	0	(625,462)
26	Amortization of PAA	(17,433)	(188)	(17,621) [18]	0	(17,621)	0	(17,621)
27	Amortization of ITC	(254)	0	(254)	0	(254)	0	(254)
28	Franchise and other taxes	48,172	0	48,172	0	48,172	0	48,172
29	Property taxes	105,629	0	105,629	0	105,629	0	105,629
30	Payroll taxes	181,610	(3,866)	177,744 [19]	0	177,744	0	177,744
31	Regulatory fee	25,609	(1,747)	23,862 [20]	2,385	26,247 [28]	1,723	25,585 [36]
32	Deferred Income Tax	0	(38,709)	(38,709) [21]	0	(38,709)	0	(38,709)
33	State income tax	115,456	(47,000)	68,456 [22]	42,536	110,992 [29]	30,720	99,176 [37]
34	Federal income tax	945,582	(384,927)	560,655 [23]	348,369	909,024 [30]	251,597	812,252 [38]
35	Total depreciation and taxes (Sum of L25 thru L35)	4,235,178	(867,364)	3,367,814	393,290	3,761,104	284,040	3,651,854
36	Total operating revenue deductions (L15 + L24 + L36)	14,391,898	(1,047,771)	13,344,126	393,290	13,737,416	284,040	13,628,166
37	Net operating income for a return (L4 - L37)	\$3,070,053	\$629,968	\$3,700,021	\$1,310,532	\$5,010,553	\$946,484	\$4,646,505

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
NET OPERATING INCOME FOR A RETURN
For The Test Year Ended March 31, 2022

Public Staff WS P Exhibit 1
Schedule 3(c)
Page 1 of 2

Line No.		BF/FH/TC WATER OPERATIONS	Base Year		Base Year		Base Year		
			Present Rates		Company Proposed Rates		Public Staff Recommended Rates		
			Amount Per Updates	Public Staff Adjustments [1]	Amount Per Public Staff [2]	Net Company Increase [22]	Operations After Rate Increase [23]	Net Public Staff Increase [29]	Operations After Rate Increase [30]
			(a)	(b)	(c)	(d)	(e)	(f)	(g)
<u>Operating Revenues</u>									
1	Service revenues	\$1,881,112	(\$1,668)	\$1,879,444 [3]	\$236,594	\$2,116,038 [3]	\$100,859	\$1,980,303 [31]	
2	Miscellaneous revenues	7,861	6,472	14,332 [4]	666	14,998 [24]	284	14,616 [32]	
3	Uncollectible accounts	(29,540)	(14,207)	(43,747) [5]	(5,507)	(49,254) [25]	(2,348)	(46,095) [33]	
4	Total operating revenues (Sum of L1 thru L3)	1,859,432	(9,403)	1,850,029	231,753	2,081,782	98,795	1,948,824	
<u>Maintenance Expenses</u>									
5	Purchased power	70,432	0	70,432	0	70,432	0	70,432	
6	Purchased water	609	0	609	0	609	0	609	
7	Maintenance and repair	195,200	12,756	207,957 [6]	0	207,957	0	207,957	
8	Maintenance testing	10,196	0	10,196	0	10,196	0	10,196	
9	Meter reading	47,602	0	47,602	0	47,602	0	47,602	
10	Chemicals	86,232	(32)	86,200 [7]	0	86,200	0	86,200	
11	Transportation	38,572	(2,405)	36,167 [8]	0	36,167	0	36,167	
12	Operating expenses charged to plant	(65,538)	(824)	(66,362) [9]	0	(66,362)	0	(66,362)	
13	Outside services - other	24,735	0	24,735	0	24,735	0	24,735	
14	Total maintenance expenses (Sum of L5 thru L14)	408,040	9,495	417,535	0	417,535	0	417,535	
<u>General Expenses</u>									
15	Salaries and wages	474,573	(9,358)	465,216 [10]	0	465,216	0	465,216	
16	Office supplies and other office expense	36,081	0	36,081	0	36,081	0	36,081	
17	Regulatory commission expense	49,468	(33,943)	15,524 [11]	0	15,524	0	15,524	
18	Pension and other benefits	117,282	(4,770)	112,512 [12]	0	112,512	0	112,512	
19	Rent	25,446	0	25,446	0	25,446	0	25,446	
20	Insurance	85,834	4,530	90,364 [13]	0	90,364	0	90,364	
21	Office utilities	17,363	0	17,363	0	17,363	0	17,363	
22	Miscellaneous	318,995	8,315	327,310 [14]	0	327,310	0	327,310	
23	Total general expenses (Sum of L16 thru L23)	1,125,041	(35,226)	1,089,816	0	1,089,816	0	1,089,816	
<u>Depreciation and Taxes</u>									
24	Depreciation expense	205,217	(55,986)	149,231 [15]	0	149,231	0	149,231	
25	Amortization of CIAC	(57,707)	0	(57,707)	0	(57,707)	0	(57,707)	
26	Amortization of PAA	15,854	(1,397)	14,457 [16]	0	14,457	0	14,457	
27	Amortization of ITC	0	0	0	0	0	0	0	
28	Franchise and other taxes	(1,321)	0	(1,321)	0	(1,321)	0	(1,321)	
29	Property taxes	7,746	0	7,746	0	7,746	0	7,746	
30	Payroll taxes	36,573	(778)	35,795 [17]	0	35,795	0	35,795	
31	Regulatory fee	2,710	(120)	2,590 [18]	324	2,914 [26]	138	2,728 [34]	
32	Deferred Income Tax	0	(8,585)	(8,585) [19]	0	(8,585)	0	(8,585)	
33	State income tax	6,187	(3,492)	2,695 [20]	5,786	8,481 [27]	2,467	5,162 [35]	
34	Federal income tax	50,669	(28,595)	22,074 [21]	47,385	69,459 [28]	20,200	42,274 [36]	
35	Total depreciation and taxes (Sum of L25 thru L35)	265,929	(98,954)	166,975	53,495	220,470	22,805	189,780	
36	Total operating revenue deductions (L15 + L24 + L36)	1,799,010	(124,684)	1,674,326	53,495	1,727,821	22,805	1,697,131	
37	Net operating income for a return (L4 - L37)	\$60,422	\$115,281	\$175,704	\$178,258	\$353,962	\$75,990	\$251,694	

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
NET OPERATING INCOME FOR A RETURN
For The Test Year Ended March 31, 2022

Public Staff WS P Exhibit 1
Schedule 3(d)
Page 1 of 2

BF/FH SEWER OPERATIONS

Line No.	Item	Base Year			Base Year			Base Year		
		Present Rates			Company Proposed Rates			Public Staff Recommended Rates		
		Amount Per Updates	Public Staff Adjustments [1]	Amount Per Public Staff [2]	Net Company Increase [22]	Operations After Rate Increase [23]		Net Public Staff Increase [29]	Operations After Rate Increase [30]	
		(a)	(b)	(c)	(d)	(e)		(f)	(g)	
<u>Operating Revenues</u>										
1	Service revenues	\$2,633,654	\$9,864	\$2,643,518 [3]	\$398,799	\$3,042,317 [3]		\$21,517	\$2,665,035 [31]	
2	Miscellaneous revenues	12,471	8,304	20,775 [4]	1,070	21,845 [24]		58	20,833 [32]	
3	Uncollectible accounts	(41,357)	26,080	(15,277) [5]	(2,304)	(17,581) [25]		(124)	(15,401) [33]	
4	Total operating revenues (Sum of L1 thru L3)	2,604,768	44,248	2,649,016	397,565	3,046,581		21,451	2,670,467	
<u>Maintenance Expenses</u>										
5	Purchased power	149,604	0	149,604	0	149,604		0	149,604	
6	Purchased sewer	0	0	0	0	0		0	0	
7	Maintenance and repair	236,104	(59,930)	176,174 [6]	0	176,174		0	176,174	
8	Maintenance testing	24,179	0	24,179	0	24,179		0	24,179	
9	Meter reading	1,041	0	1,041	0	1,041		0	1,041	
10	Chemicals	67,536	(4,833)	62,704 [7]	0	62,704		0	62,704	
11	Transportation	39,483	(2,461)	37,022 [8]	0	37,022		0	37,022	
12	Operating expenses charged to plant	(67,085)	(844)	(67,929) [9]	0	(67,929)		0	(67,929)	
13	Outside services - other	25,319	0	25,319	0	25,319		0	25,319	
14	Total maintenance expenses (Sum of L5 thru L14)	476,180	(68,067)	408,113	0	408,113		0	408,113	
<u>General Expenses</u>										
15	Salaries and wages	485,774	(9,579)	476,195 [10]	0	476,195		0	476,195	
16	Office supplies and other office expense	36,933	0	36,933	0	36,933		0	36,933	
17	Regulatory commission expense	50,635	(34,746)	15,889 [11]	0	15,889		0	15,889	
18	Pension and other benefits	120,050	(4,883)	115,167 [12]	0	115,167		0	115,167	
19	Rent	26,047	0	26,047	0	26,047		0	26,047	
20	Insurance	87,859	4,638	92,497 [13]	0	92,497		0	92,497	
21	Office utilities	17,772	(0)	17,772	0	17,772		0	17,772	
22	Miscellaneous	326,492	8,509	335,001 [14]	0	335,001		0	335,001	
23	Total general expenses (Sum of L16 thru L23)	1,151,562	(36,061)	1,115,500	0	1,115,500		0	1,115,500	
<u>Depreciation and Taxes</u>										
24	Depreciation expense	479,039	(80,550)	398,489 [15]	0	398,489		0	398,489	
25	Amortization of CIAC	(150,635)	(0)	(150,635)	0	(150,635)		0	(150,635)	
26	Amortization of PAA	43,850	(504)	43,346 [16]	0	43,346		0	43,346	
27	Amortization of ITC	0	0	0	0	0		0	0	
28	Franchise and other taxes	(1,352)	0	(1,352)	0	(1,352)		0	(1,352)	
29	Property taxes	9,754	0	9,754	0	9,754		0	9,754	
30	Payroll taxes	37,437	(797)	36,640 [17]	0	36,640		0	36,640	
31	Regulatory fee	3,851	(142)	3,709 [18]	556	4,265 [25]		30	3,739 [34]	
32	Deferred Income Tax	0	(8,786)	(8,786) [19]	0	(8,786)		0	(8,786)	
33	State income tax	16,654	(2,719)	13,935 [20]	9,925	23,860 [27]		536	14,471 [35]	
34	Federal income tax	136,397	(22,269)	114,128 [21]	81,288	195,416 [28]		4,386	118,514 [36]	
35	Total depreciation and taxes (Sum of L25 thru L35)	574,994	(115,767)	459,227	91,769	550,996		4,952	464,179	
36	Total operating revenue deductions (L15 + L24 + L36)	2,202,735	(219,895)	1,982,840	91,769	2,074,609		4,952	1,987,792	
37	Net operating income for a return (L4 - L37)	\$402,033	\$264,144	\$666,176	\$305,796	\$971,972		\$16,499	\$682,675	

CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 400**FOOTNOTES TO SCHEDULE 3(a)****For The Test Year Ended March 31, 2022**

Public Staff WSIP Exhibit 1

Schedule 3(a)

Page 2 of 2

**Base Year
CWSNC WATER OPERATIONS**

- [1] Column (c) minus Column (a), unless otherwise footnoted.
- [2] Column (a) plus Column (b), unless otherwise footnoted.
- [3] Based on the recommendation of Public Staff Engineer Darden.
- [4] Public Staff WSIP Exhibit 1, Schedule 3-1(a), Column (c), Line 4.
- [5] Public Staff WSIP Exhibit 1, Schedule 3-2, Column (a), Line 6.
- [6] Public Staff WSIP Exhibit 1, Schedule 3-4, Column (a), Line 5.
- [7] Public Staff WSIP Exhibit 1, Schedule 3-5, Column (a), Line 7.
- [8] Public Staff WSIP Exhibit 1, Schedule 3-6, Column (a), Line 6.
- [9] Based on review of the Company's data.
- [10] Public Staff WSIP Exhibit 1, Schedule 3-8, Column (a), Line 7 .
- [11] Public Staff WSIP Exhibit 1, Schedule 3-9, Column (a), Line 6.
- [12] Public Staff WSIP Exhibit 1, Schedule 3-10, Column (a), Line 7.
- [13] Public Staff WSIP Exhibit 1, Schedule 3-3, Column (a), Line 5.
- [14] Public Staff WSIP Exhibit 1, Schedule 3-12, Column (d), Line 11.
- [15] Public Staff WSIP Exhibit 1, Schedule 3-13, Column (a), Line 5.
- [16] Public Staff WSIP Exhibit 1, Schedule 3-15, Column (a), Line 10.
- [17] Public Staff WSIP Exhibit 1, Schedule 3-17 Column (a), Line 7.
- [18] Public Staff WSIP Exhibit 1, Schedule 3-18, Column (a), Line 5.
- [19] Public Staff WSIP Exhibit 1, Schedule 3-18, Column (a), Line 13.
- [20] Public Staff WSIP Exhibit 1, Schedule 3-16, Column (a), Line 5.
- [21] Line 4 Column (c) multiplied by 0.14%.
- [22] Calculated based on the Public Staff's workpaper.
- [23] Public Staff WSIP Exhibit 1, Schedule 3-22(a), Column (a), Line 16.
- [24] Public Staff WSIP Exhibit 1, Schedule 3-22(a), Column (a), Line 18.
- [25] Column (e) minus Column (c), unless otherwise footnoted.
- [26] Column (c) plus Column (d), unless otherwise footnoted.
- [27] Public Staff WSIP Exhibit 1, Schedule 3-1(a), Column (c), Line 8.
- [28] Public Staff WSIP Exhibit 1, Schedule 3-2, Column (a), Line 9.
- [29] Line 4 Column (e) multiplied by 0.14%.
- [30] Public Staff WSIP Exhibit 1, Schedule 3-22(a), Column (b), Line 16.
- [31] Public Staff WSIP Exhibit 1, Schedule 3-22(a), Column (b), Line 18.
- [32] Column (g) minus Column (c), unless otherwise footnoted.
- [33] Column (c) plus Column (f), unless otherwise footnoted.
- [34] Revenue requirement as calculated by the Public Staff.
- [35] Public Staff WSIP Exhibit 1, Schedule 3-1(a), Column (c), Line 12.
- [36] Public Staff WSIP Exhibit 1, Schedule 3-2, Column (a), Line 12.
- [37] Line 4 Column (g) multiplied by 0.14%.
- [38] Public Staff WSIP Exhibit 1, Schedule 3-22(a), Column (c), Line 16.
- [39] Public Staff WSIP Exhibit 1, Schedule 3-22(a), Column (c), Line 18

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CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
FOOTNOTES TO SCHEDULE 3(b)
For The Test Year Ended March 31, 2022

Public Staff WSIP Exhibit 1
Schedule 3(b)
Page 2 of 2

Base Year
CWSNC SEWER OPERATIONS

- [1] Column (c) minus Column (a), unless otherwise footnoted.
- [2] Column (a) plus Column (b), unless otherwise footnoted.
- [3] Based on the recommendation of Public Staff Engineer Darden.
- [4] Public Staff WSIP Exhibit 1, Schedule 3-1(b), Column (c), Line 4.
- [5] Public Staff WSIP Exhibit 1, Schedule 3-2, Column (b), Line 6.
- [6] Public Staff WSIP Exhibit 1, Schedule 3-4, Column (b), Line 5.
- [7] Public Staff WSIP Exhibit 1, Schedule 3-6, Column (b), Line 7.
- [8] Based on review of the Company's data.
- [9] Public Staff WSIP Exhibit 1, Schedule 3-8, Column (b), Line 7
- [10] Public Staff WSIP Exhibit 1, Schedule 3-9, Column (b), Line 6.
- [11] Public Staff WSIP Exhibit 1, Schedule 3-10, Column (b), Line 6.
- [12] Public Staff WSIP Exhibit 1, Schedule 3-3, Column (b), Line 5.
- [13] Public Staff WSIP Exhibit 1, Schedule 3-12, Column (e), Line 11.
- [14] Public Staff WSIP Exhibit 1, Schedule 3-13, Column (b), Line 5.
- [15] Public Staff WSIP Exhibit 1, Schedule 3-15, Column (b), Line 10.
- [16] Public Staff WSIP Exhibit 1, Schedule 3-17, Column (b), Line 7.
- [17] Public Staff WSIP Exhibit 1, Schedule 3-18, Column (b), Line 5.
- [18] Public Staff WSIP Exhibit 1, Schedule 3-18, Column (b), Line 13.
- [19] Public Staff WSIP Exhibit 1, Schedule 3-18, Column (b), Line 5.
- [20] Line 4 Column (c) multiplied by 0.14%.
- [21] Calculated based on the Public Staff's workpaper.
- [22] Public Staff WSIP Exhibit 1, Schedule 3-22(b), Column (a), Line 16.
- [23] Public Staff WSIP Exhibit 1, Schedule 3-22(b), Column (a), Line 18.
- [24] Column (e) minus Column (c), unless otherwise footnoted.
- [25] Column (c) plus Column (d), unless otherwise footnoted.
- [26] Public Staff WSIP Exhibit 1, Schedule 3-1(b), Column (c), Line 8.
- [27] Public Staff WSIP Exhibit 1, Schedule 3-2, Column (b), Line 9.
- [28] Line 4 Column (e) multiplied by 0.14%.
- [29] Public Staff WSIP Exhibit 1, Schedule 3-22(b), Column (b), Line 16.
- [30] Public Staff WSIP Exhibit 1, Schedule 3-22(b), Column (b), Line 18.
- [31] Column (g) minus Column (c), unless otherwise footnoted.
- [32] Column (c) plus Column (f), unless otherwise footnoted.
- [33] Revenue requirement as calculated by the Public Staff.
- [34] Public Staff WSIP Exhibit 1, Schedule 3-1(b), Column (c), Line 12.
- [35] Public Staff WSIP Exhibit 1, Schedule 3-2, Column (b), Line 12.
- [36] Line 4 Column (g) multiplied by 0.14%.
- [37] Public Staff WSIP Exhibit 1, Schedule 3-22(b), Column (c), Line 16.
- [38] Public Staff WSIP Exhibit 1, Schedule 3-22(b), Column (c), Line 18.

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CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 400

FOOTNOTES TO SCHEDULE 3(c)

For The Test Year Ended March 31, 2022

Public Staff WSIP Exhibit 1

Schedule 3(c)

Page 2 of 2

Base Year

BF/FH/TC WATER OPERATIONS

- [1] Column (c) minus Column (a), unless otherwise footnoted.
- [2] Column (a) plus Column (b), unless otherwise footnoted.
- [3] Based on the recommendation of Public Staff Engineer Darden.
- [4] Public Staff WSIP Exhibit 1, Schedule 3-1(c), Column (c), Line 4.
- [5] Public Staff WSIP Exhibit 1, Schedule 3-2, Column (c), Line 6.
- [6] Public Staff WSIP Exhibit 1, Schedule 3-6, Column (c), Line 7.
- [7] Based on review of the Company's data.
- [8] Public Staff WSIP Exhibit 1, Schedule 3-8, Column (c), Line 7 .
- [9] Public Staff WSIP Exhibit 1, Schedule 3-9, Column (c), Line 6.
- [10] Public Staff WSIP Exhibit 1, Schedule 3-3, Column (c), Line 5.
- [11] Public Staff WSIP Exhibit 1, Schedule 3-12, Column (f), Line 11.
- [12] Public Staff WSIP Exhibit 1, Schedule 3-13, Column (c), Line 5.
- [13] Public Staff WSIP Exhibit 1, Schedule 3-15, Column (c), Line 10.
- [14] Public Staff WSIP Exhibit 1, Schedule 3-17, Column (c), Line 7.
- [15] Public Staff WSIP Exhibit 1, Schedule 3-18, Column (c), Line 5.
- [16] Public Staff WSIP Exhibit 1, Schedule 3-18, Column (c), Line 13.
- [17] Public Staff WSIP Exhibit 1, Schedule 3-16, Column (c), Line 5.
- [18] Line 4 Column (c) multiplied by 0.14%.
- [19] Calculated based on the Public Staff's workpaper.
- [20] Public Staff WSIP Exhibit 1, Schedule 3-22(c), Column (a), Line 16.
- [21] Public Staff WSIP Exhibit 1, Schedule 3-22(c), Column (a), Line 18.
- [22] Column (e) minus Column (c), unless otherwise footnoted.
- [23] Column (c) plus Column (d), unless otherwise footnoted.
- [24] Public Staff WSIP Exhibit 1, Schedule 3-1(c), Column (c), Line 8.
- [25] Public Staff WSIP Exhibit 1, Schedule 3-2, Column (c), Line 9.
- [26] Line 4 Column (e) multiplied by 0.14%.
- [27] Public Staff WSIP Exhibit 1, Schedule 3-22(c), Column (b), Line 16.
- [28] Public Staff WSIP Exhibit 1, Schedule 3-22(c), Column (b), Line 18.
- [29] Column (g) minus Column (c), unless otherwise footnoted.
- [30] Column (c) plus Column (f), unless otherwise footnoted.
- [31] Revenue requirement as calculated by the Public Staff.
- [32] Public Staff WSIP Exhibit 1, Schedule 3-1(c), Column (c), Line 12.
- [33] Public Staff WSIP Exhibit 1, Schedule 3-2, Column (c), Line 12.
- [34] Line 4 Column (g) multiplied by 0.14%.
- [35] Public Staff WSIP Exhibit 1, Schedule 3-22(c), Column (c), Line 16.
- [36] Public Staff WSIP Exhibit 1, Schedule 3-22(c), Column (c), Line 18.

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CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 400

FOOTNOTES TO SCHEDULE 3(d)

For The Test Year Ended March 31, 2022

Public Staff WSIP Exhibit 1

Schedule 3(d)

Page 2 of 2

Base Year

BF/FH SEWER OPERATIONS

- [1] Column (c) minus Column (a), unless otherwise footnoted.
- [2] Column (a) plus Column (b), unless otherwise footnoted.
- [3] Based on the recommendation of Public Staff Engineer Darden.
- [4] Public Staff WSIP Exhibit 1, Schedule 3-1(d), Column (c), Line 4.
- [5] Public Staff WSIP Exhibit 1, Schedule 3-2, Column (d), Line 6.
- [6] Public Staff WSIP Exhibit 1, Schedule 3-5, Column (d), Line 7.
- [7] Based on review of the Company's data.
- [8] Public Staff WSIP Exhibit 1, Schedule 3-7, Column (d), Line 7 .
- [9] Public Staff WSIP Exhibit 1, Schedule 3-8, Column (d), Line 6.
- [10] Public Staff WSIP Exhibit 1, Schedule 3-3, Column (d), Line 5.
- [11] Public Staff WSIP Exhibit 1, Schedule 3-10, Column (g), Line 11.
- [12] Public Staff WSIP Exhibit 1, Schedule 3-11, Column (d), Line 5.
- [13] Public Staff WSIP Exhibit 1, Schedule 3-12, Column (d), Line 10.
- [14] Public Staff WSIP Exhibit 1, Schedule 3-13, Column (d), Line 7.
- [15] Public Staff WSIP Exhibit 1, Schedule 3-14, Column (d), Line 5.
- [16] Public Staff WSIP Exhibit 1, Schedule 3-14, Column (d), Line 13.
- [17] Public Staff WSIP Exhibit 1, Schedule 3-16, Column (d), Line 5.
- [18] Line 4 Column (c) multiplied by 0.14%.
- [19] Calculated based on the Public Staff's workpaper.
- [20] Public Staff WSIP Exhibit 1, Schedule 3-22(d), Column (a), Line 16.
- [21] Public Staff WSIP Exhibit 1, Schedule 3-2(d), Column (a), Line 18.
- [22] Column (e) minus Column (c), unless otherwise footnoted.
- [23] Column (c) plus Column (d), unless otherwise footnoted.
- [24] Public Staff WSIP Exhibit 1, Schedule 3-1(d), Column (c), Line 8.
- [25] Public Staff WSIP Exhibit 1, Schedule 3-2, Column (d), Line 9.
- [26] Line 4 Column (e) multiplied by 0.14%.
- [27] Public Staff WSIP Exhibit 1, Schedule 3-22(d), Column (b), Line 16.
- [28] Public Staff WSIP Exhibit 1, Schedule 3-22(d), Column (b), Line 18.
- [29] Column (g) minus Column (c), unless otherwise footnoted.
- [30] Column (c) plus Column (f), unless otherwise footnoted.
- [31] Revenue requirement as calculated by the Public Staff.
- [32] Public Staff WSIP Exhibit 1, Schedule 3-1(d), Column (c), Line 12.
- [33] Public Staff WSIP Exhibit 1, Schedule 3-2, Column (d), Line 12.
- [34] Line 4 Column (g) multiplied by 0.14%.
- [35] Public Staff WSIP Exhibit 1, Schedule 3-22(d), Column (c), Line 16.
- [36] Public Staff WSIP Exhibit 1, Schedule 3-22(d), Column (c), Line 18.

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CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
NET OPERATING INCOME FOR A RETURN
For The Test Year Ended March 31, 2024

Public Staff WSIP Exhibit 1
Schedule 3(a)(1)
Page 1 of 2

CWSNC WATER OPERATIONS

CWSNC WATER OPERATIONS			Rate Year 1		Rate Year 1			Rate Year 1		
			Present Rates		Company Proposed Rates			Public Staff Recommended Rates		
Line No.	Item	Amount Per Company (a)	Public Staff Adjustments [1] (b)	Amount Per Public Staff [2] (c)	Net Company Increase [31] (d)	Operations After Rate Increase [32] (e)	Net Public Staff Increase [38] (f)	Operations After Rate Increase [39] (g)		
Operating Revenues:										
1	Service revenues	\$22,816,174	\$1,089,909	\$23,906,083 [3]	\$2,165,495	\$26,071,578 [3]	(\$38,132)	\$23,867,951 [40]		
2	Miscellaneous revenues	90,390	86,177	176,567 [4]	6,142	182,709 [33]	(108)	176,459 [41]		
3	Uncollectible accounts	(222,895)	48,410	(174,485) [5]	(15,805)	(190,290) [34]	278	(174,207) [42]		
4	Total operating revenues (Sum of L1 thru L3)	<u>22,683,669</u>	<u>1,224,496</u>	<u>23,908,165</u>	<u>2,155,832</u>	<u>26,063,997</u>	<u>(37,962)</u>	<u>23,870,204</u>		
Maintenance Expenses:										
5	Purchased power	1,154,615	(36,054)	1,118,561 [6]	0	1,118,561	0	1,118,561		
6	Purchased water	1,665,457	0	1,665,457	0	1,665,457	0	1,665,457		
7	Maintenance and repair	1,263,123	(68,156)	1,194,967 [7]	0	1,194,967	0	1,194,967		
8	Maintenance testing	210,238	(8,206)	202,031 [8]	0	202,031	0	202,031		
9	Meter reading	251,818	(21,637)	230,181 [9]	0	230,181	0	230,181		
10	Chemicals	425,428	(79,859)	345,569 [10]	0	345,569	0	345,569		
11	Transportation	308,114	(21,022)	287,092 [11]	0	287,092	0	287,092		
12	Operating expenses charged to plant	(464,384)	(7,065)	(471,449) [12]	0	(471,449)	0	(471,449)		
13	Outside services - other	136,582	(19,576)	117,005 [13]	0	117,005	0	117,005		
14	Total maintenance expenses (Sum of L5 thru L14)	<u>4,950,991</u>	<u>(261,576)</u>	<u>4,689,415</u>	<u>0</u>	<u>4,689,415</u>	<u>0</u>	<u>4,689,415</u>		
General Expenses:										
15	Salaries and wages	4,068,428	(80,223)	3,988,205 [14]	0	3,988,205	0	3,988,205		
16	Office supplies and other office expense	344,606	(14,509)	330,097 [15]	0	330,097	0	330,097		
17	Regulatory commission expense	409,396	(280,583)	128,813 [16]	0	128,813	0	128,813		
18	Pension and other benefits	1,050,339	(85,796)	964,543 [17]	0	964,543	0	964,543		
19	Rent	227,890	(8,895)	218,995 [18]	0	218,995	0	218,995		
20	Insurance	767,442	9,437	776,879 [19]	0	776,879	0	776,879		
21	Office utilities	198,385	(11,569)	186,816 [20]	0	186,816	0	186,816		
22	Miscellaneous	3,205,160	(322,133)	2,883,027 [21]	0	2,883,027	0	2,883,027		
23	Total general expenses (Sum of L16 thru L23)	<u>10,271,647</u>	<u>(794,272)</u>	<u>9,477,374</u>	<u>0</u>	<u>9,477,374</u>	<u>0</u>	<u>9,477,374</u>		
Depreciation and Taxes:										
24	Depreciation expense	4,257,285	(535,507)	3,721,778 [22]	0	3,721,778	0	3,721,778		
25	Amortization of CIAC	(733,560)	0	(733,560)	0	(733,560)	0	(733,560)		
26	Amortization of PAA	(117,358)	(5,488)	(122,846) [23]	0	(122,846)	0	(122,846)		
27	Amortization of ITC	(265)	0	(265)	0	(265)	0	(265)		
28	Franchise and other taxes	62,023	(5,537)	56,486 [24]	0	56,486	0	56,486		
29	Property taxes	145,817	(9,848)	135,969 [25]	0	135,969	0	135,969		
30	Payroll taxes	313,537	(6,675)	306,863 [26]	0	306,863	0	306,863		
31	Regulatory fee	34,901	(1,430)	33,471 [27]	3,019	36,490 [35]	(53)	33,418 [43]		
32	Deferred Income Tax	0	(64,882)	(64,882) [28]	0	(64,882)	0	(64,882)		
33	State income tax	139,967	(25,900)	114,067 [29]	53,820	167,887 [36]	(948)	113,119 [44]		
34	Federal income tax	1,146,333	(212,125)	934,209 [30]	440,788	1,374,997 [37]	(7,762)	926,447 [45]		
35	Total depreciation and taxes (Sum of L25 thru L35)	<u>5,248,681</u>	<u>(867,391)</u>	<u>4,381,289</u>	<u>497,628</u>	<u>4,878,917</u>	<u>(8,763)</u>	<u>4,372,527</u>		
36	Total operating revenue deductions (L14 + L23 + L35)	<u>20,471,318</u>	<u>(1,923,239)</u>	<u>18,548,079</u>	<u>497,628</u>	<u>19,045,707</u>	<u>(8,763)</u>	<u>18,539,316</u>		
37	Net operating income for a return (L4 - L37)	<u>\$2,212,351</u>	<u>\$3,147,735</u>	<u>\$5,360,087</u>	<u>\$1,658,204</u>	<u>\$7,018,290</u>	<u>(\$29,199)</u>	<u>\$5,330,887</u>		

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
NET OPERATING INCOME FOR A RETURN
For The Test Year Ended March 31, 2023

Public Staff WSIP Exhibit 1
Schedule 3(b)(1)
Page 1 of 2

CWSNC SEWER OPERATIONS

CWSNC SEWER OPERATIONS		Rate Year 1		Rate Year 1		Rate Year 1		
Line No.	Item	Present Rates		Company Proposed Rates		Public Staff Recommended Rates		
		Amount Per Updates	Public Staff Adjustments [1]	Amount Per Public Staff [2]	Net Company Increase [31]	Operations After Rate Increase [32]	Net Public Staff Increase [38]	Operations After Rate Increase [39]
		(a)	(b)	(c)	(d)	(e)	(f)	(g)
Operating Revenues:								
1	Service revenues	\$17,559,952	\$1,132,647	\$18,692,599 [3]	\$2,148,110	\$20,840,709 [3]	\$883,007	\$19,575,606 [40]
2	Miscellaneous revenues	73,544	61,044	134,588 [4]	5,755	140,344 [33]	2,366	136,954 [41]
3	Uncollectible accounts	(171,546)	92,329	(79,218) [5]	(9,103)	(88,321) [34]	(3,742)	(82,960) [42]
4	Total operating revenues (Sum of L1 thru L3)	<u>17,461,951</u>	<u>1,286,019</u>	<u>18,747,970</u>	<u>2,144,762</u>	<u>20,892,732</u>	<u>881,631</u>	<u>19,629,601</u>
Maintenance Expenses:								
5	Purchased power	902,226	(54,693)	847,533 [6]	0	847,533	0	847,533
6	Purchased sewer	1,048,540	0	1,048,540	0	1,048,540	0	1,048,540
7	Maintenance and repair	1,802,879	(240,331)	1,562,549 [7]	0	1,562,549	0	1,562,549
8	Maintenance testing	328,780	(12,833)	315,947 [8]	0	315,947	0	315,947
9	Meter reading	3,308	(181)	3,127 [9]	0	3,127	0	3,127
10	Chemicals	632,120	(34,100)	598,019 [10]	0	598,019	0	598,019
11	Transportation	183,149	(11,869)	171,280 [11]	0	171,280	0	171,280
12	Operating expenses charged to plant	(277,055)	(4,215)	(281,269) [12]	0	(281,269)	0	(281,269)
13	Outside services - other	81,187	(11,382)	69,805 [13]	0	69,805	0	69,805
14	Total maintenance expenses (Sum of L5 thru L14)	<u>4,705,136</u>	<u>(369,605)</u>	<u>4,335,531</u>	<u>0</u>	<u>4,335,531</u>	<u>0</u>	<u>4,335,531</u>
General Expenses:								
15	Salaries and wages	2,427,248	(47,862)	2,379,387 [14]	0	2,379,387	0	2,379,387
16	Office supplies and other office expense	205,474	(8,536)	196,938 [15]	0	196,938	0	196,938
17	Regulatory commission expense	244,029	(167,177)	76,851 [16]	0	76,851	0	76,851
18	Pension and other benefits	626,639	(51,186)	575,453 [17]	0	575,453	0	575,453
19	Rent	135,961	(5,307)	130,654 [18]	0	130,654	0	130,654
20	Insurance	457,711	5,780	463,491 [19]	0	463,491	0	463,491
21	Office utilities	116,903	(6,412)	110,490 [20]	0	110,490	0	110,490
22	Miscellaneous	1,845,289	(104,700)	1,740,589 [21]	0	1,740,589	0	1,740,589
23	Total general expenses (Sum of L16 thru L23)	<u>6,059,254</u>	<u>(385,401)</u>	<u>5,673,853</u>	<u>0</u>	<u>5,673,853</u>	<u>0</u>	<u>5,673,853</u>
Depreciation and Taxes:								
24	Depreciation expense	3,667,345	(224,466)	3,442,879 [22]	0	3,442,879	0	3,442,879
25	Amortization of CIAC	(625,462)	0	(625,462)	0	(625,462)	0	(625,462)
26	Amortization of PAA	(17,433)	188	(17,244) [23]	0	(17,244)	0	(17,244)
27	Amortization of ITC	(254)	0	(254)	0	(254)	0	(254)
28	Franchise and other taxes	52,701	(4,529)	48,172 [24]	0	48,172	0	48,172
29	Property taxes	113,204	(7,575)	105,629 [25]	0	105,629	0	105,629
30	Payroll taxes	187,058	(3,982)	183,076 [26]	0	183,076	0	183,076
31	Regulatory fee	27,760	(1,513)	26,247 [27]	3,003	29,250 [35]	1,234	27,481 [43]
32	Deferred Income Tax	0	(38,709)	(38,709) [28]	0	(38,709)	0	(38,709)
33	State income tax	131,173	(37,116)	94,058 [29]	53,544	147,602 [36]	22,010	116,068 [44]
34	Federal income tax	1,074,310	(303,978)	770,332 [30]	438,525	1,208,857 [37]	180,261	950,593 [45]
35	Total depreciation and taxes (Sum of L25 thru L35)	<u>4,610,403</u>	<u>(621,679)</u>	<u>3,988,724</u>	<u>495,072</u>	<u>4,483,796</u>	<u>203,505</u>	<u>4,192,229</u>
36	Total operating revenue deductions (L14 + L23 + L35)	<u>15,374,792</u>	<u>(1,376,685)</u>	<u>13,998,108</u>	<u>495,072</u>	<u>14,493,180</u>	<u>203,505</u>	<u>14,201,613</u>
37	Net operating income for a return (L4 - L37)	<u>\$2,087,158</u>	<u>\$2,662,704</u>	<u>\$4,749,862</u>	<u>\$1,649,690</u>	<u>\$6,399,552</u>	<u>\$678,126</u>	<u>\$5,427,988</u>

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
NET OPERATING INCOME FOR A RETURN
For The Test Year Ended March 31, 2023

Public Staff WSIP Exhibit 1
Schedule 3(c) (1)
Page 1 of 2

BF/FH/TC WATER OPERATIONS

BF/FH/TC WATER OPERATIONS		Rate Year 1		Rate Year 1		Rate Year 1	
		Present Rates		Company Proposed Rates		Public Staff Recommended Rates	
				Net Operations		Net Operations	
				Company After Rate		Public Staff After Rate	
				Increase [31] Increase [32]		Increase [38] Increase [39]	
				(d) (e)		(f) (g)	

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
NET OPERATING INCOME FOR A RETURN
For The Test Year Ended March 31, 2023

Public Staff WSIP Exhibit 1
Schedule 3(d)(1)
Page 1 of 2

BF/FH SEWER OPERATIONS

Line No.	Item	Rate Year 1			Rate Year 1			Rate Year 1		
		Present Rates		Public Staff [1]	Company Proposed Rates		Net Increase [31]	Public Staff Recommended Rates		Operations After Rate Increase [39]
		Amount Per Updates (a)	Public Staff Adjustments (b)		Amount Per Public Staff (c)	Net Company Increase (d)		Net Public Staff Increase (f)	Operations After Rate Increase (g)	
	Operating Revenues:									
1	Service revenues	\$2,633,654	\$408,663		\$3,042,317 [3]	\$126,985		\$3,169,302 [3]	(\$226,401)	\$2,815,916 [40]
2	Miscellaneous revenues	12,471	9,374		21,845 [4]	341		22,186 [33]	(608)	21,238 [41]
3	Uncollectible accounts	(41,357)	23,776		(17,581) [5]	(734)		(18,315) [34]	1,308	(16,273) [42]
4	Total operating revenues (Sum of L1 thru L3)	<u>2,604,768</u>	<u>441,813</u>		<u>3,046,581</u>	<u>126,592</u>		<u>3,173,173</u>	<u>(225,700)</u>	<u>2,820,881</u>
	Maintenance Expenses:									
5	Purchased power	164,710	(9,416)		155,294 [6]	0		155,294	0	155,294
6	Purchased sewer	0	0		0	0		0	0	0
7	Maintenance and repair	256,093	(53,738)		202,355 [7]	0		202,355	0	202,355
8	Maintenance testing	26,016	(1,016)		25,001 [8]	0		25,001	0	25,001
9	Meter reading	1,146	(70)		1,076 [9]	0		1,076	0	1,076
10	Chemicals	72,669	(7,581)		65,088 [10]	0		65,088	0	65,088
11	Transportation	43,469	(6,447)		37,022 [11]	0		37,022	0	37,022
12	Operating expenses charged to plant	(69,098)	(869)		(69,967) [12]	0		(69,967)	0	(69,967)
13	Outside services - other	27,875	(1,696)		26,179 [13]	0		26,179	0	26,179
14	Total maintenance expenses (Sum of L5 thru L14)	<u>522,880</u>	<u>(80,832)</u>		<u>442,048</u>	<u>0</u>		<u>442,048</u>	<u>0</u>	<u>442,048</u>
	General Expenses:									
15	Salaries and wages	500,347	(9,866)		490,481 [14]	0		490,481	0	490,481
16	Office supplies and other office expense	39,808	(1,619)		38,188 [15]	0		38,188	0	38,188
17	Regulatory commission expense	51,911	(36,022)		15,889 [16]	0		15,889	0	15,889
18	Pension and other benefits	129,174	(10,552)		118,622 [17]	0		118,622	0	118,622
19	Rent	28,027	(1,094)		26,933 [18]	0		26,933	0	26,933
20	Insurance	94,596	948		95,544 [19]	0		95,544	0	95,544
21	Office utilities	19,567	(1,191)		18,376 [20]	0		18,376	0	18,376
22	Miscellaneous	352,222	(5,832)		346,391 [21]	0		346,391	0	346,391
23	Total general expenses (Sum of L16 thru L23)	<u>1,215,651</u>	<u>(65,228)</u>		<u>1,150,424</u>	<u>0</u>		<u>1,150,424</u>	<u>0</u>	<u>1,150,424</u>
	Depreciation and Taxes:									
24	Depreciation expense	499,655	(83,676)		415,979 [22]	0		415,979	0	415,979
25	Amortization of CIAC	(150,635)	(0)		(150,635)	0		(150,635)	0	(150,635)
26	Amortization of PAA	43,850	(1,680)		42,170 [23]	0		42,170	0	42,170
27	Amortization of ITC	0	0		0	0		0	0	0
28	Franchise and other taxes	(1,489)	137		(1,352) [24]	0		(1,352)	0	(1,352)
29	Property taxes	10,508	(755)		9,754 [25]	0		9,754	0	9,754
30	Payroll taxes	38,560	(821)		37,739 [26]	0		37,739	0	37,739
31	Regulatory fee	4,183	82		4,265 [27]	177		4,442 [35]	(316)	3,949 [43]
32	Deferred Income Tax	0	(8,786)		(8,786) [28]	0		(8,786)	0	(8,786)
33	State income tax	18,997	2,261		21,258 [29]	3,160		24,418 [36]	(5,635)	15,623 [44]
34	Federal income tax	155,585	18,519		174,104 [30]	25,883		199,987 [37]	(46,147)	127,956 [45]
35	Total depreciation and taxes (Sum of L25 thru L35)	<u>619,214</u>	<u>(74,719)</u>		<u>544,495</u>	<u>29,221</u>		<u>573,716</u>	<u>(52,098)</u>	<u>492,397</u>
36	Total operating revenue deductions (L14 + L23 + L35)	<u>2,357,745</u>	<u>(220,778)</u>		<u>2,136,967</u>	<u>29,221</u>		<u>2,166,188</u>	<u>(52,098)</u>	<u>2,084,869</u>
37	Net operating income for a return (L4 - L37)	<u>\$247,022</u>	<u>\$662,592</u>		<u>\$909,614</u>	<u>\$97,371</u>		<u>\$1,006,985</u>	<u>(\$173,602)</u>	<u>\$736,012</u>

CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 400
FOOTNOTES TO SCHEDULE 3(a)(1)
For The Test Year Ended March 31, 2024

Public Staff WS P Exhibit 1
Schedule 3(a)(1)
Page 2 of 2

Rate Year 1
CWSNC WATER OPERATIONS

- [1] Column (c) minus Column (a), unless otherwise footnoted.
- [2] Column (a) plus Column (b), unless otherwise footnoted.
- [3] Based on the recommendation of Public Staff Engineer Darden.
- [4] Public Staff WSIP Exhibit 1, Schedule 3-1(a), Column (c), Line 4.
- [5] Public Staff WSIP Exhibit 1, Schedule 3-2(a), Column (a), Line 6.
- [6] Public Staff WSIP Exhibit 1, Schedule 3-4(a), Column (a), Line 6.
- [7] Public Staff WSIP Exhibit 1, Schedule 3-5(1), Column (a), Line 7.
- [8] Public Staff WSIP Exhibit 1, Schedule 3-6(a), Column (a), Line 6.
- [9] Public Staff WSIP Exhibit 1, Schedule 3-7(a), Column (a), Line 6.
- [10] Based on reviewing of the Company's data.
- [11] Public Staff WSIP Exhibit 1, Schedule 3-8(a), Column (a), Line 6.
- [12] Public Staff WSIP Exhibit 1, Schedule 3-9(a), Column (a), Line 6.
- [13] Public Staff WSIP Exhibit 1, Schedule 3-10(a), Column (a), Line 6.
- [14] Public Staff WSIP Exhibit 1, Schedule 3-3(a), Column (a), Line 6.
- [15] Public Staff WSIP Exhibit 1, Schedule 3-11(a), Column (a), Line 6.
- [16] Public Staff WSIP Exhibit 1, Schedule 3-12(a), Column (d), Line 11.
- [17] Public Staff WSIP Exhibit 1, Schedule 3-13(a), Column (a), Line 6.
- [18] Public Staff WSIP Exhibit 1, Schedule 3-14(a), Column (a), Line 6.
- [19] Public Staff WSIP Exhibit 1, Schedule 3-15(a), Column (a), Line 10.
- [20] Public Staff WSIP Exhibit 1, Schedule 3-16(a), Column (a), Line 6.
- [21] Public Staff WSIP Exhibit 1, Schedule 3-17(a), Column (a), Line 6.
- [22] Public Staff WSIP Exhibit 1, Schedule 3-18(a), Column (a), Line 5.
- [23] Public Staff WSIP Exhibit 1, Schedule 3-18(a), Column (a), Line 13.
- [24] Public Staff WSIP Exhibit 1, Schedule 3-19(a), Column (a), Line 6.
- [25] Public Staff WSIP Exhibit 1, Schedule 3-21(a), Column (a), Line 6.
- [26] Public Staff WSIP Exhibit 1, Schedule 3-20(a), Column (a), Line 6.
- [27] Line 4 Column (c) multiplied by 0.14%.
- [28] Calculated based on the Public Staff's workpaper.
- [29] Public Staff WSIP Exhibit 1, Schedule 3-22(a)(1), Column (a), Line 16.
- [30] Public Staff WSIP Exhibit 1, Schedule 3-22(a)(1), Column (a), Line 18.
- [31] Column (e) minus Column (c), unless otherwise footnoted.
- [32] Column (c) plus Column (d), unless otherwise footnoted.
- [33] Public Staff WSIP Exhibit 1, Schedule 3-1(a), Column (c), Line 8.
- [34] Public Staff WSIP Exhibit 1, Schedule 3-2(a), Column (a), Line 9.
- [35] Line 4 Column (e) multiplied by 0.14%.
- [36] Public Staff WSIP Exhibit 1, Schedule 3-22(a)(1), Column (b), Line 16.
- [37] Public Staff WSIP Exhibit 1, Schedule 3-22(a)(1), Column (b), Line 18.
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- [44] Public Staff WSIP Exhibit 1, Schedule 3-22(a)(1), Column (c), Line 16.
- [45] Public Staff WSIP Exhibit 1, Schedule 3-22(a)(1), Column (c), Line 18.

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CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 400
FOOTNOTES TO SCHEDULE 3(b)(1)
For The Test Year Ended March 31, 2024

Public Staff WS P Exhibit 1
Schedule 3(b)(1)
Page 2 of 2

Rate Year 1
CWSNC SEWER OPERATIONS

- [1] Column (c) minus Column (a), unless otherwise footnoted.
- [2] Column (a) plus Column (b), unless otherwise footnoted.
- [3] Based on the recommendation of Public Staff Engineer Darden.
- [4] Public Staff WSIP Exhibit 1, Schedule 3-1(b), Column (c), Line 4.
- [5] Public Staff WSIP Exhibit 1, Schedule 3-2(b), Column (a), Line 6.
- [6] Public Staff WSIP Exhibit 1, Schedule 3-4(b), Column (a), Line 6.
- [7] Public Staff WSIP Exhibit 1, Schedule 3-5(2), Column (a), Line 7.
- [8] Public Staff WSIP Exhibit 1, Schedule 3-6(b), Column (a), Line 6.
- [9] Public Staff WSIP Exhibit 1, Schedule 3-7(b), Column (a), Line 6.
- [10] Based on reviewing of the Company's data.
- [11] Public Staff WSIP Exhibit 1, Schedule 3-8(b), Column (a), Line 6.
- [12] Public Staff WSIP Exhibit 1, Schedule 3-9(b), Column (a), Line 6.
- [13] Public Staff WSIP Exhibit 1, Schedule 3-10(b), Column (a), Line 6.
- [14] Public Staff WSIP Exhibit 1, Schedule 3-3(b), Column (a), Line 6.
- [15] Public Staff WSIP Exhibit 1, Schedule 3-11(b), Column (a), Line 6.
- [16] Public Staff WSIP Exhibit 1, Schedule 3-12(b), Column (e), Line 11.
- [17] Public Staff WSIP Exhibit 1, Schedule 3-13(b), Column (a), Line 6.
- [18] Public Staff WSIP Exhibit 1, Schedule 3-14(b), Column (a), Line 6.
- [19] Public Staff WSIP Exhibit 1, Schedule 3-15(b), Column (a), Line 10.
- [20] Public Staff WSIP Exhibit 1, Schedule 3-16(b), Column (a), Line 6.
- [21] Public Staff WSIP Exhibit 1, Schedule 3-17(b), Column (a), Line 6.
- [22] Public Staff WSIP Exhibit 1, Schedule 3-18(b), Column (a), Line 5.
- [23] Public Staff WSIP Exhibit 1, Schedule 3-18(b), Column (a), Line 13.
- [24] Public Staff WSIP Exhibit 1, Schedule 3-19(b), Column (a), Line 6.
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CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 400
FOOTNOTES TO SCHEDULE 3(c)(1)
For The Test Year Ended March 31, 2024

Public Staff WS P Exhibit 1
Schedule 3(c)(1)
Page 2 of 2

Rate Year 1
BF/FH/TC WATER OPERATIONS

- [1] Column (c) minus Column (a), unless otherwise footnoted.
- [2] Column (a) plus Column (b), unless otherwise footnoted.
- [3] Based on the recommendation of Public Staff Engineer Darden.
- [4] Public Staff WSIP Exhibit 1, Schedule 3-1(c), Column (c), Line 4.
- [5] Public Staff WSIP Exhibit 1, Schedule 3-2(c), Column (a), Line 6.
- [6] Public Staff WSIP Exhibit 1, Schedule 3-4(c), Column (a), Line 6.
- [7] Public Staff WSIP Exhibit 1, Schedule 3-5(3), Column (a), Line 7.
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CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 400
FOOTNOTES TO SCHEDULE 3(d)(1)
For The Test Year Ended March 31, 2024

Public Staff WS P Exhibit 1
Schedule 3(d)(1)
Page 2 of 2

Rate Year 1
BF/FH SEWER OPERATIONS

- [1] Column (c) minus Column (a), unless otherwise footnoted.
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- [4] Public Staff WSIP Exhibit 1, Schedule 3-1(d), Column (c), Line 4.
- [5] Public Staff WSIP Exhibit 1, Schedule 3-2(d), Column (a), Line 6.
- [6] Public Staff WSIP Exhibit 1, Schedule 3-4(d), Column (a), Line 6.
- [7] Public Staff WSIP Exhibit 1, Schedule 3-5(4), Column (a), Line 7.
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- [14] Public Staff WSIP Exhibit 1, Schedule 3-3(d), Column (a), Line 6.
- [15] Public Staff WSIP Exhibit 1, Schedule 3-11(d), Column (a), Line 6.
- [16] Public Staff WSIP Exhibit 1, Schedule 3-12(d), Column (g), Line 11.
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- [18] Public Staff WSIP Exhibit 1, Schedule 3-14(d), Column (a), Line 6.
- [19] Public Staff WSIP Exhibit 1, Schedule 3-15(d), Column (a), Line 10.
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Dec 05 2022

Public Staff WSIP Exhibit 1
Schedule 3(a)(2)
Page 1 of 2

Rate Year 2

Dec 05 2022

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
NET OPERATING INCOME FOR A RETURN
For The Test Year Ended March 31, 2023

Public Staff WSIP Exhibit 1
Schedule 3(b)(2)
Page 1 of 2

CWSNC SEWER OPERATIONS

CWSNC SEWER OPERATIONS		Rate Year 2				Rate Year 2				Rate Year 2			
Line No.	Item	Present Rates				Company Proposed Rates				Public Staff Recommended Rates			
		Amount Per	Public Staff	Amount Per	Net	Operations	Net	Operations					
		Updates	Adjustments [1]	Public Staff	Company	After Rate	Public Staff	After Rate					
		(a)	(b)	(c)	Increase [31]	Increase [32]	Increase [38]	Increase [39]					
	Operating Revenues:												
1	Service revenues	\$21,251,730	(\$411,021)	\$20,840,709 [3]	\$1,246,532	\$22,087,241 [3]	(\$803,813)	\$20,036,896 [40]					
2	Miscellaneous revenues	124,761	15,583	140,344 [4]	3,340	143,684 [33]	(2,154)	138,190 [41]					
3	Uncollectible accounts	(207,612)	119,291	(88,321) [5]	(5,283)	(93,604) [34]	3,406	(84,915) [42]					
4	Total operating revenues (Sum of L1 thru L3)	<u>21,168,879</u>	<u>(276,148)</u>	<u>20,892,732</u>	<u>1,244,589</u>	<u>22,137,321</u>	<u>(802,560)</u>	<u>20,090,172</u>					
	Maintenance Expenses:												
5	Purchased power	925,585	(54,153)	871,432 [6]	0	871,432	0	871,432					
6	Purchased sewer	1,048,540	0	1,048,540	0	1,048,540	0	1,048,540					
7	Maintenance and repair	1,842,508	(287,951)	1,554,557 [7]	0	1,554,557	0	1,554,557					
8	Maintenance testing	337,292	(13,763)	323,529 [8]	0	323,529	0	323,529					
9	Meter reading	3,394	(192)	3,202 [9]	0	3,202	0	3,202					
10	Chemicals	648,485	(33,603)	614,883 [10]	0	614,883	0	614,883					
11	Transportation	187,891	(16,611)	171,280 [11]	0	171,280	0	171,280					
12	Operating expenses charged to plant	(285,366)	(4,341)	(289,707) [12]	0	(289,707)	0	(289,707)					
13	Outside services - other	83,289	(11,808)	71,480 [13]	0	71,480	0	71,480					
14	Total maintenance expenses (Sum of L5 thru L14)	<u>4,791,618</u>	<u>(422,422)</u>	<u>4,369,197</u>	<u>0</u>	<u>4,369,197</u>	<u>0</u>	<u>4,369,197</u>					
	General Expenses:												
15	Salaries and wages	2,500,066	(49,297)	2,450,768 [14]	0	2,450,768	0	2,450,768					
16	Office supplies and other office expense	210,794	(9,130)	201,664 [15]	0	201,664	0	201,664					
17	Regulatory commission expense	245,574	(168,724)	76,851 [16]	0	76,851	0	76,851					
18	Pension and other benefits	642,862	(50,146)	592,716 [17]	0	592,716	0	592,716					
19	Rent	139,224	(5,434)	133,790 [18]	0	133,790	0	133,790					
20	Insurance	487,864	(13,248)	474,616 [19]	0	474,616	0	474,616					
21	Office utilities	119,929	(6,787)	113,142 [20]	0	113,142	0	113,142					
22	Miscellaneous	1,893,520	(111,157)	1,782,363 [21]	0	1,782,363	0	1,782,363					
23	Total general expenses (Sum of L16 thru L23)	<u>6,239,834</u>	<u>(413,924)</u>	<u>5,825,910</u>	<u>0</u>	<u>5,825,910</u>	<u>0</u>	<u>5,825,910</u>					
	Depreciation and Taxes:												
24	Depreciation expense	3,999,605	(423,528)	3,576,077 [22]	0	3,576,077	0	3,576,077					
25	Amortization of CIAC	(625,462)	0	(625,462)	0	(625,462)	0	(625,462)					
26	Amortization of PAA	(17,433)	188	(17,244) [23]	0	(17,244)	0	(17,244)					
27	Amortization of ITC	(254)	0	(254)	0	(254)	0	(254)					
28	Franchise and other taxes	54,065	(5,893)	48,172 [24]	0	48,172	0	48,172					
29	Property taxes	125,366	(19,736)	105,629 [25]	0	105,629	0	105,629					
30	Payroll taxes	192,670	(4,101)	188,569 [26]	0	188,569	0	188,569					
31	Regulatory fee	30,201	(951)	29,250 [27]	1,742	30,992 [35]	(1,124)	28,126 [43]					
32	Deferred Income Tax	0	(38,709)	(38,709) [28]	0	(38,709)	0	(38,709)					
33	State income tax	154,474	(15,927)	138,547 [29]	31,071	169,618 [36]	(20,036)	118,511 [44]					
34	Federal income tax	1,265,145	(130,444)	1,134,701 [30]	254,473	1,389,174 [37]	(164,094)	970,607 [45]					
35	Total depreciation and taxes (Sum of L25 thru L35)	<u>5,178,377</u>	<u>(639,102)</u>	<u>4,539,276</u>	<u>287,286</u>	<u>4,826,562</u>	<u>(185,254)</u>	<u>4,354,022</u>					
36	Total operating revenue deductions (L15 + L24 + L36)	<u>16,209,830</u>	<u>(1,475,447)</u>	<u>14,734,382</u>	<u>287,286</u>	<u>15,021,668</u>	<u>(185,254)</u>	<u>14,549,128</u>					
37	Net operating income for a return (L4 - L37)	<u>\$4,959,050</u>	<u>\$1,199,300</u>	<u>\$6,158,349</u>	<u>\$957,303</u>	<u>\$7,115,652</u>	<u>(\$617,306)</u>	<u>\$5,541,043</u>					

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
NET OPERATING INCOME FOR A RETURN
For The Test Year Ended March 31, 2023

Public Staff WSIP Exhibit 1
Schedule 3(c)(2)
Page 1 of 2

BF/FH/TC WATER OPERATIONS

BF/HTC WATER OPERATIONS			Rate Year 2		Rate Year 2			Rate Year 2		
			Present Rates		Company Proposed Rates			Public Staff Recommended Rates		
Line			Amount Per	Public Staff	Amount Per	Net	Operations	Public Staff	Operations	
No.			Updates	Adjustments [1]	Public Staff	Company	After Rate	Increase	After Rate	[39]
			(a)	(b)	(c)	Increase	Increase	(f)	Increase	(g)
	<u>Operating Revenues:</u>									
1	Service revenues		\$2,452,708	\$58,062	\$2,510,770 [3]	\$150,350	\$2,661,120 [3]	(\$125,578)		\$2,385,192 [40]
2	Miscellaneous revenues		14,851	1,257	16,108 [4]	423	16,532 [33]	(353)		15,755 [41]
3	Uncollectible accounts		(38,516)	(19,927)	(58,443) [5]	(3,500)	(61,942) [34]	2,923		(55,520) [42]
4	Total operating revenues (Sum of L1 thru L3)		<u>2,429,043</u>	<u>39,393</u>	<u>2,468,436</u>	<u>147,273</u>	<u>2,615,709</u>	<u>(123,008)</u>		<u>2,345,428</u>
	<u>Maintenance Expenses:</u>									
5	Purchased power		79,830	(4,605)	75,224 [6]	0	75,224	0		75,224
6	Purchased water		609	0	609	0	609	0		609
7	Maintenance and repair		222,939	(3,712)	219,227 [7]	0	219,227	0		219,227
8	Maintenance testing		11,329	(533)	10,796 [8]	0	10,796	0		10,796
9	Meter reading		53,954	(3,552)	50,402 [9]	0	50,402	0		50,402
10	Chemicals		95,814	(2,849)	92,965 [10]	0	92,965	0		92,965
11	Transportation		43,719	(7,552)	36,167 [11]	0	36,167	0		36,167
12	Operating expenses charged to plant		(69,529)	(874)	(70,403) [12]	0	(70,403)	0		(70,403)
13	Outside services - other		28,035	(1,846)	26,190 [13]	0	26,190	0		26,190
14	Total maintenance expenses (Sum of L5 thru L14)		<u>466,698</u>	<u>(25,523)</u>	<u>441,175</u>	<u>0</u>	<u>441,175</u>	<u>0</u>		<u>441,175</u>
	<u>General Expenses:</u>									
15	Salaries and wages		503,475	(9,928)	493,547 [14]	0	493,547	0		493,547
16	Office supplies and other office expense		40,150	(1,947)	38,203 [15]	0	38,203	0		38,203
17	Regulatory commission expense		51,115	(35,590)	15,525 [16]	0	15,525	0		15,525
18	Pension and other benefits		130,314	(10,950)	119,364 [17]	0	119,364	0		119,364
19	Rent		28,274	(1,331)	26,943 [18]	0	26,943	0		26,943
20	Insurance		109,838	(14,257)	95,581 [19]	0	95,581	0		95,581
21	Office utilities		19,680	(1,295)	18,384 [20]	0	18,384	0		18,384
22	Miscellaneous		355,613	(9,052)	346,561 [21]	0	346,561	0		346,561
23	Total general expenses (Sum of L16 thru L23)		<u>1,238,459</u>	<u>(84,351)</u>	<u>1,154,108</u>	<u>0</u>	<u>1,154,108</u>	<u>0</u>		<u>1,154,108</u>
	<u>Depreciation and Taxes:</u>									
24	Depreciation expense		283,593	(53,104)	230,489 [22]	0	230,489	0		230,489
25	Amortization of CIAC		(57,707)	0	(57,707)	0	(57,707)	0		(57,707)
26	Amortization of PAA		15,854	(1,215)	14,639 [23]	0	14,639	0		14,639
27	Amortization of ITC		0	0	0	0	0	0		0
28	Franchise and other taxes		(1,497)	176	(1,321) [24]	0	(1,321)	0		(1,321)
29	Property taxes		11,264	(3,518)	7,746 [25]	0	7,746	0		7,746
30	Payroll taxes		38,801	(826)	37,975 [26]	0	37,975	0		37,975
31	Regulatory fee		3,486	(30)	3,456 [27]	206	3,662 [35]	(172)		3,284 [43]
32	Deferred Income Tax		0	(8,585)	(8,585) [28]	0	(8,585)	0		(8,585)
33	State income tax		12,472	(192)	12,281 [29]	3,677	15,957 [36]	(3,071)		9,210 [44]
34	Federal income tax		102,150	(1,570)	100,579 [30]	30,112	130,691 [37]	(25,151)		75,429 [45]
35	Total depreciation and taxes (Sum of L25 thru L35)		<u>408,415</u>	<u>(68,863)</u>	<u>339,552</u>	<u>33,995</u>	<u>373,547</u>	<u>(28,394)</u>		<u>311,159</u>
36	Total operating revenue deductions (L15 + L24 + L36)		<u>2,113,573</u>	<u>(178,737)</u>	<u>1,934,836</u>	<u>33,995</u>	<u>1,968,830</u>	<u>(28,394)</u>		<u>1,906,442</u>
37	Net operating income for a return (L4 - L37)		<u>\$315,470</u>	<u>\$218,130</u>	<u>\$533,600</u>	<u>\$113,279</u>	<u>\$646,879</u>	<u>(\$94,614)</u>		<u>\$438,986</u>

Public Staff WSIP Exhibit 1
Schedule 3(d)(2)
Page 1 of 2

Rate Year 2

Dec 05 2022

CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 400

FOOTNOTES TO SCHEDULE 3(a)

For The Test Year Ended March 31, 2025

**Rate Year 2
CWSNC WATER OPERATIONS**

Public Staff WSIP Exhibit 1

Schedule 3(a)(2)

Page 2 of 2

- [1] Column (c) minus Column (a), unless otherwise footnoted.
- [2] Column (a) plus Column (b), unless otherwise footnoted.
- [3] Based on the recommendation of Public Staff Engineer Darden.
- [4] Public Staff WSIP Exh bit 1, Schedule 3-1(a), Column (f), Line 4.
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- [9] Public Staff WSIP Exh bit 1, Schedule 3-7(a), Column (b), Line 6.
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- [27] Line 4 Column (c) multiplied by 0.14%.
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- [30] Public Staff WSIP Exh bit 1, Schedule 3-22(a)(2), Column (d), Line 18.
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CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
FOOTNOTES TO SCHEDULE 3(b)
For The Test Year Ended March 31, 2025

Public Staff WSIP Exhibit 1
Schedule 3(b)(2)
Page 2 of 2

Rate Year 2
CWSNC SEWER OPERATIONS

- [1] Column (c) minus Column (a), unless otherwise footnoted.
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CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 400

FOOTNOTES TO SCHEDULE 3(c)

For The Test Year Ended March 31, 2025

Public Staff WSIP Exhibit 1

Schedule 3(c)(1)

Page 2 of 2

**Rate Year 2
BF/FH/TC WATER OPERATIONS**

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- [2] Column (a) plus Column (b), unless otherwise footnoted.
- [3] Based on the recommendation of Public Staff Engineer Darden.
- [4] Public Staff WSIP Exh bit 1, Schedule 3-1(c), Column (f), Line 4.
- [5] Public Staff WSIP Exh bit 1, Schedule 3-2(c), Column (b), Line 6.
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Dec 05 2022

CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 400

FOOTNOTES TO SCHEDULE 3(d)

For The Test Year Ended March 31, 2025

Public Staff WSIP Exhibit 1

Schedule 3(d)(1)

Page 2 of 2

**Rate Year 2
BF/FH SEWER OPERATIONS**

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Dec 05 2022

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
NET OPERATING INCOME FOR A RETURN
For The Test Year Ended March 31, 2026

Public Staff WS P Exhibit 1
Schedule 3(a)(3)
Page 1 of 2

CWSNC WATER OPERATIONS		Rate Year 3		Rate Year 3		Rate Year 3		
Line No.	Item	Present Rates		Company Proposed Rates		Public Staff Recommended Rates		
		Amount Per Updates	Public Staff Adjustments [1]	Amount Per Public Staff [2]	Net Company Increase [31]	Operations After Rate Increase [32]	Net Public Staff Increase [38]	Operations After Rate Increase [39]
		(a)	(b)	(c)	(d)	(e)	(f)	(g)
<u>Operating Revenues</u>								
1	Service revenues	\$28,258,195	(\$1,049,476)	\$27,208,719 [3]	\$1,142,145	\$28,350,864 [3]	(\$1,941,222)	\$25,267,497 [40]
2	Miscellaneous revenues	178,273	7,661	185,935 [4]	3,239	189,174 [33]	(5,506)	180,429 [41]
3	Uncollectible accounts	(276,059)	77,469	(198,590) [5]	(8,336)	(206,926) [34]	14,169	(184,422) [42]
4	Total operating revenues (Sum of L1 thru L3)	28,160,409	(964,346)	27,196,063	1,137,048	28,333,112	(1,932,559)	25,263,504
<u>Maintenance Expenses</u>								
5	Purchased power	1,233,088	(37,801)	1,195,287 [6]	0	1,195,287	0	1,195,287
6	Purchased water	1,665,457	0	1,665,457	0	1,665,457	0	1,665,457
7	Maintenance and repair	1,313,104	(41,527)	1,271,578 [7]	0	1,271,578	0	1,271,578
8	Maintenance testing	224,526	(12,681)	211,845 [8]	0	211,845	0	211,845
9	Meter reading	268,933	(27,570)	241,363 [9]	0	241,363	0	241,363
10	Chemicals	454,342	(85,069)	369,273 [10]	0	369,273	0	369,273
11	Transportation	329,055	(41,963)	287,092 [11]	0	287,092	0	287,092
12	Operating expenses charged to plant	(492,665)	(7,495)	(500,160) [12]	0	(500,160)	0	(500,160)
13	Outside services - other	145,864	(23,175)	122,689 [13]	0	122,689	0	122,689
14	Total maintenance expenses (Sum of L5 thru L14)	5,141,706	(277,282)	4,864,424	0	4,864,424	0	4,864,424
<u>General Expenses</u>								
15	Salaries and wages	4,316,196	(85,109)	4,231,087 [14]	0	4,231,087	0	4,231,087
16	Office supplies and other office expense	368,027	(21,895)	346,131 [15]	0	346,131	0	346,131
17	Regulatory commission expense	416,222	(287,410)	128,812 [16]	0	128,812	0	128,812
18	Pension and other benefits	1,121,725	(98,441)	1,023,284 [17]	0	1,023,284	0	1,023,284
19	Rent	238,960	(9,327)	229,633 [18]	0	229,633	0	229,633
20	Insurance	842,056	(27,439)	814,617 [19]	0	814,617	0	814,617
21	Office utilities	211,868	(15,977)	195,891 [20]	0	195,891	0	195,891
22	Miscellaneous	3,424,883	(401,811)	3,023,072 [21]	0	3,023,072	0	3,023,072
23	Total general expenses (Sum of L16 thru L23)	10,939,937	(947,410)	9,992,528	0	9,992,528	0	9,992,528
<u>Depreciation and Taxes</u>								
24	Depreciation expense	4,709,887	(676,623)	4,033,264 [22]	0	4,033,264	0	4,033,264
25	Amortization of CIAC	(733,560)	0	(733,560)	0	(733,560)	0	(733,560)
26	Amortization of PAA	(117,358)	(4,644)	(122,002) [23]	0	(122,002)	0	(122,002)
27	Amortization of ITC	(265)	0	(265)	0	(265)	0	(265)
28	Franchise and other taxes	66,238	(9,753)	56,486 [24]	0	56,486	0	56,486
29	Property taxes	164,424	(28,455)	135,969 [25]	0	135,969	0	135,969
30	Payroll taxes	332,632	(7,081)	325,551 [26]	0	325,551	0	325,551
31	Regulatory fee	38,552	(478)	38,074 [27]	1,592	39,666 [35]	(2,705)	35,369 [43]
32	Deferred Income Tax	0	(64,882)	(64,882) [28]	0	(64,882)	0	(64,882)
33	State income tax	166,819	1,222	168,041 [29]	28,386	196,427 [36]	(48,246)	119,794 [44]
34	Federal income tax	1,366,245	10,009	1,376,254 [30]	232,485	1,608,739 [37]	(395,138)	981,116 [44]
35	Total depreciation and taxes (Sum of L25 thru L35)	5,993,614	(780,685)	5,212,929	262,463	5,475,392	(446,089)	4,766,840
36	Total operating revenue deductions (L15 + L24 + L36)	22,075,257	(2,005,377)	20,069,880	262,463	20,332,343	(446,089)	19,623,791
37	Net operating income for a return (L4 - L37)	\$6,085,152	\$1,041,031	\$7,126,183	\$874,585	\$8,000,768	(\$1,486,470)	\$5,639,713

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
NET OPERATING INCOME FOR A RETURN
For The Test Year Ended March 31, 2023

Public Staff WS P Exhibit 1
Schedule 3(b)(3)
Page 1 of 2

CWSNC SEWER OPERATIONS		Rate Year 3		Rate Year 3		Rate Year 3		
Line No.	Item	Present Rates		Company Proposed Rates		Public Staff Recommended Rates		
		Amount Per Updates	Public Staff Adjustments [1]	Amount Per Public Staff [2]	Net Company Increase [31]	Operations After Rate Increase [32]	Net Public Staff Increase [38]	Operations After Rate Increase [39]
		(a)	(b)	(c)	(d)	(e)	(f)	(g)
<u>Operating Revenues</u>								
1	Service revenues	\$23,129,810	(\$1,042,569)	\$22,087,241 [3]	\$1,348,999	\$23,436,240 [3]	(\$299,017)	\$21,788,224 [40]
2	Miscellaneous revenues	129,287	14,397	143,684 [4]	3,614	147,298 [33]	(801)	142,882 [41]
3	Uncollectible accounts	(225,959)	132,355	(93,604) [5]	(5,717)	(99,321) [34]	1,267	(92,337) [42]
4	Total operating revenues (Sum of L1 thru L3)	23,033,138	(895,817)	22,137,321	1,346,896	23,484,217	(298,551)	21,838,770
<u>Maintenance Expenses</u>								
5	Purchased power	949,548	(53,365)	896,184 [6]	0	896,184	0	896,184
6	Purchased sewer	1,048,540	0	1,048,540	0	1,048,540	0	1,048,540
7	Maintenance and repair	1,681,719	(109,704)	1,572,015 [7]	0	1,572,015	0	1,572,015
8	Maintenance testing	346,025	(14,731)	331,294 [8]	0	331,294	0	331,294
9	Meter reading	3,482	(203)	3,279 [9]	0	3,279	0	3,279
10	Chemicals	665,274	(32,927)	632,347 [10]	0	632,347	0	632,347
11	Transportation	192,756	(21,476)	171,280 [11]	0	171,280	0	171,280
12	Operating expenses charged to plant	(293,927)	(4,471)	(298,399) [12]	0	(298,399)	0	(298,399)
13	Outside services - other	85,445	(12,249)	73,196 [13]	0	73,196	0	73,196
14	Total maintenance expenses (Sum of L5 thru L14)	4,678,863	(249,126)	4,429,737	0	4,429,737	0	4,429,737
<u>General Expenses</u>								
15	Salaries and wages	2,575,068	(50,776)	2,524,291 [14]	0	2,524,291	0	2,524,291
16	Office supplies and other office expense	216,251	(9,747)	206,504 [15]	0	206,504	0	206,504
17	Regulatory commission expense	247,160	(170,309)	76,851 [16]	0	76,851	0	76,851
18	Pension and other benefits	659,506	(49,008)	610,498 [17]	0	610,498	0	610,498
19	Rent	142,566	(5,565)	137,001 [18]	0	137,001	0	137,001
20	Insurance	517,228	(31,222)	486,006 [19]	0	486,006	0	486,006
21	Office utilities	123,034	(7,177)	115,857 [20]	0	115,857	0	115,857
22	Miscellaneous	1,942,998	(117,858)	1,825,140 [21]	0	1,825,140	0	1,825,140
23	Total general expenses (Sum of L16 thru L23)	6,423,810	(441,662)	5,982,148	0	5,982,148	0	5,982,148
<u>Depreciation and Taxes</u>								
24	Depreciation expense	4,341,053	(325,083)	4,015,970 [22]	0	4,015,970	0	4,015,970
25	Amortization of CIAC	(625,462)	0	(625,462)	0	(625,462)	0	(625,462)
26	Amortization of PAA	(17,433)	314	(17,119) [23]	0	(17,119)	0	(17,119)
27	Amortization of ITC	(254)	0	(254)	0	(254)	0	(254)
28	Franchise and other taxes	55,465	(7,293)	48,172 [24]	0	48,172	0	48,172
29	Property taxes	137,050	(31,421)	105,629 [25]	0	105,629	0	105,629
30	Payroll taxes	198,450	(4,224)	194,226 [26]	0	194,226	0	194,226
31	Regulatory fee	32,246	(1,254)	30,992 [27]	1,886	32,878 [35]	(418)	30,574 [43]
32	Deferred Income Tax	0	(38,709)	(38,709) [28]	0	(38,709)	0	(38,709)
33	State income tax	175,618	(30,111)	145,506 [29]	33,625	179,132 [36]	(7,453)	138,053 [44]
34	Federal income tax	1,438,309	(246,611)	1,191,698 [30]	275,391	1,467,089 [37]	(61,043)	1,130,655 [44]
35	Total depreciation and taxes (Sum of L25 thru L35)	5,735,043	(684,393)	5,050,649	310,902	5,361,551	(68,914)	4,981,735
36	Total operating revenue deductions (L15 + L24 + L36)	16,837,716	(1,375,181)	15,462,534	310,902	15,773,436	(68,914)	15,393,620
37	Net operating income for a return (L4 - L37)	\$6,195,422	\$479,364	\$6,674,787	\$1,035,994	\$7,710,781	(\$229,637)	\$6,445,150

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
NET OPERATING INCOME FOR A RETURN
For The Test Year Ended March 31, 2023

Public Staff WS P Exhibit 1
Schedule 3(c)(3)
Page 1 of 2

Line No.		BF/FH/TC WATER OPERATIONS		Rate Year 3		Rate Year 3		Rate Year 3	
				Present Rates		Company Proposed Rates		Public Staff Recommended Rates	
		Amount Per Updates	Public Staff Adjustments [1]	Amount Per Public Staff [2]	Net Company Increase [31]	Operations After Rate Increase [32]	Net Public Staff Increase [38]	Operations After Rate Increase [39]	
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	
<u>Operating Revenues</u>									
1	Service revenues	\$2,691,227	(\$30,107)	\$2,661,120 [3]	\$112,016	\$2,773,136 [3]	(\$225,128)	\$2,435,992 [40]	
2	Miscellaneous revenues	15,531	1,001	16,531 [4]	316	16,847 [33]	(633)	15,898 [41]	
3	Uncollectible accounts	(42,261)	(19,681)	(61,942) [5]	(2,607)	(64,550) [34]	5,240	(56,702) [42]	
4	Total operating revenues (Sum of L1 thru L3)	2,664,496	(48,787)	2,615,709	109,724	2,725,433	(220,521)	2,395,188	
<u>Maintenance Expenses</u>									
5	Purchased power	82,435	(5,066)	77,369 [6]	0	77,369	0	77,369	
6	Purchased water	609	0	609	0	609	0	609	
7	Maintenance and repair	226,670	(3,035)	223,636 [7]	0	223,636	0	223,636	
8	Maintenance testing	11,699	(644)	11,055 [8]	0	11,055	0	11,055	
9	Meter reading	55,715	(4,103)	51,611 [9]	0	51,611	0	51,611	
10	Chemicals	98,941	(3,326)	95,615 [10]	0	95,615	0	95,615	
11	Transportation	45,146	(8,979)	36,167 [11]	0	36,167	0	36,167	
12	Operating expenses charged to plant	(71,615)	(900)	(72,516) [12]	0	(72,516)	0	(72,516)	
13	Outside services - other	28,950	(2,132)	26,818 [13]	0	26,818	0	26,818	
14	Total maintenance expenses (Sum of L5 thru L14)	478,549	(28,185)	450,364	0	450,364	0	450,364	
<u>General Expenses</u>									
15	Salaries and wages	518,579	(10,226)	508,354 [14]	0	508,354	0	508,354	
16	Office supplies and other office expense	41,460	(2,340)	39,120 [15]	0	39,120	0	39,120	
17	Regulatory commission expense	51,572	(36,047)	15,525 [16]	0	15,525	0	15,525	
18	Pension and other benefits	134,567	(11,622)	122,945 [17]	0	122,945	0	122,945	
19	Rent	29,196	(1,607)	27,589 [18]	0	27,589	0	27,589	
20	Insurance	116,690	(18,816)	97,874 [19]	0	97,874	0	97,874	
21	Office utilities	20,322	(1,496)	18,825 [20]	0	18,825	0	18,825	
22	Miscellaneous	367,500	(12,621)	354,878 [21]	0	354,878	0	354,878	
23	Total general expenses (Sum of L16 thru L23)	1,279,886	(94,776)	1,185,111	0	1,185,111	0	1,185,111	
<u>Depreciation and Taxes</u>									
24	Depreciation expense	308,493	(72,654)	235,839 [22]	0	235,839	0	235,839	
25	Amortization of CIAC	(57,707)	0	(57,707)	0	(57,707)	0	(57,707)	
26	Amortization of PAA	15,854	(1,336)	14,518 [23]	0	14,518	0	14,518	
27	Amortization of ITC	0	0	0	0	0	0	0	
28	Franchise and other taxes	(1,546)	225	(1,321) [24]	0	(1,321)	0	(1,321)	
29	Property taxes	12,231	(4,485)	7,746 [25]	0	7,746	0	7,746	
30	Payroll taxes	39,965	(851)	39,114 [26]	0	39,114	0	39,114	
31	Regulatory fee	3,719	(57)	3,662 [27]	154	3,816 [35]	(309)	3,353 [43]	
32	Deferred Income Tax	0	(8,585)	(8,585) [28]	0	(8,585)	0	(8,585)	
33	State income tax	14,287	485	14,772 [29]	2,739	17,511 [36]	(5,505)	9,266 [44]	
34	Federal income tax	117,006	3,974	120,980 [30]	22,435	143,415 [37]	(45,088)	75,892 [44]	
35	Total depreciation and taxes (Sum of L25 thru L35)	452,302	(83,284)	369,018	25,328	394,345	(50,903)	318,115	
36	Total operating revenue deductions (L15 + L24 + L36)	2,210,737	(206,245)	2,004,492	25,328	2,029,820	(50,903)	1,953,589	
37	Net operating income for a return (L4 - L37)	\$453,759	\$157,458	\$611,217	\$84,397	\$695,614	(\$169,618)	\$441,599	

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
NET OPERATING INCOME FOR A RETURN
For The Test Year Ended March 31, 2023

Public Staff WS P Exhibit 1
Schedule 3(d)(3)
Page 1 of 2

BF/FH SEWER OPERATIONS

Line No.	Item	Rate Year 3				Rate Year 3				Rate Year 3			
		Present Rates				Company Proposed Rates				Public Staff Recommended Rates			
		Amount Per	Public Staff	Amount Per		Net	Operations	Net		Public Staff	Operations	Net	
		Updates	Adjustments [1]	Public Staff		Company	After Rate	Company		Public Staff	After Rate	Company	
		(a)	(b)	(c)	[2]	Increase	Increase	Increase	[31]	Increase	Increase	Increase	[39]
						(d)	(e)	(f)		(g)			
	<u>Operating Revenues</u>												
1	Service revenues	\$3,866,490	(\$443,998)	\$3,422,492	[3]	\$140,463	\$3,562,955	\$62,856		\$3,485,348			
2	Miscellaneous revenues	21,867	999	22,865	[4]	377	23,242	169		23,034			
3	Uncollectible accounts	(60,717)	40,939	(19,778)	[5]	(812)	(20,590)	(363)		(20,141)			
4	Total operating revenues (Sum of L1 thru L3)	<u>3,827,640</u>	<u>(402,061)</u>	<u>3,425,579</u>		<u>140,028</u>	<u>3,565,607</u>	<u>62,661</u>		<u>3,488,241</u>			
	<u>Maintenance Expenses</u>												
5	Purchased power	177,786	(13,692)	164,094	[6]	0	164,094	0		164,094			
6	Purchased sewer	0	0	0		0	0	0		0			
7	Maintenance and repair	274,798	(63,913)	210,885	[7]	0	210,885	0		210,885			
8	Maintenance testing	28,082	(1,866)	26,215	[8]	0	26,215	0		26,215			
9	Meter reading	1,237	(108)	1,129	[9]	0	1,129	0		1,129			
10	Chemicals	78,438	(9,661)	68,777	[10]	0	68,777	0		68,777			
11	Transportation	46,920	(9,898)	37,022	[11]	0	37,022	0		37,022			
12	Operating expenses charged to plant	(73,306)	(922)	(74,228)	[12]	0	(74,228)	0		(74,228)			
13	Outside services - other	30,088	(2,637)	27,451	[13]	0	27,451	0		27,451			
14	Total maintenance expenses (Sum of L5 thru L14)	<u>564,043</u>	<u>(102,699)</u>	<u>461,344</u>		<u>0</u>	<u>461,344</u>	<u>0</u>		<u>461,344</u>			
	<u>General Expenses</u>												
15	Salaries and wages	530,818	(10,467)	520,351	[14]	0	520,351	0		520,351			
16	Office supplies and other office expense	42,968	(2,925)	40,043	[15]	0	40,043	0		40,043			
17	Regulatory commission expense	53,016	(37,127)	15,889	[16]	0	15,889	0		15,889			
18	Pension and other benefits	139,429	(13,583)	125,846	[17]	0	125,846	0		125,846			
19	Rent	30,252	(2,011)	28,241	[18]	0	28,241	0		28,241			
20	Insurance	117,589	(17,404)	100,185	[19]	0	100,185	0		100,185			
21	Office utilities	21,120	(1,851)	19,269	[20]	0	19,269	0		19,269			
22	Miscellaneous	380,882	(17,665)	363,217	[21]	0	363,217	0		363,217			
23	Total general expenses (Sum of L16 thru L23)	<u>1,316,074</u>	<u>(103,033)</u>	<u>1,213,042</u>		<u>0</u>	<u>1,213,042</u>	<u>0</u>		<u>1,213,042</u>			
	<u>Depreciation and Taxes</u>												
24	Depreciation expense	678,385	(108,816)	569,569	[22]	0	569,569	0		569,569			
25	Amortization of CIAC	(150,635)	(0)	(150,635)		0	(150,635)	0		(150,635)			
26	Amortization of PAA	43,850	(2,016)	41,834	[23]	0	41,834	0		41,834			
27	Amortization of ITC	0	0	0		0	0	0		0			
28	Franchise and other taxes	(1,607)	255	(1,352)	[24]	0	(1,352)	0		(1,352)			
29	Property taxes	14,840	(5,087)	9,754	[25]	0	9,754	0		9,754			
30	Payroll taxes	40,908	(870)	40,038	[26]	0	40,038	0		40,038			
31	Regulatory fee	5,573	(777)	4,796	[27]	196	4,992	88	[35]	4,884			[43]
32	Deferred Income Tax	0	(8,786)	(8,786)	[28]	0	(8,786)	0		(8,786)			
33	State income tax	32,634	(10,840)	21,794	[29]	3,496	25,290	1,564	[36]	23,359			[44]
34	Federal income tax	267,276	(88,780)	178,496	[30]	28,631	207,127	12,812	[37]	191,308			
35	Total depreciation and taxes (Sum of L25 thru L35)	<u>931,225</u>	<u>(225,718)</u>	<u>705,507</u>		<u>32,322</u>	<u>737,829</u>	<u>14,464</u>		<u>719,971</u>			
36	Total operating revenue deductions (L15 + L24 + L36)	<u>2,811,342</u>	<u>(431,450)</u>	<u>2,379,892</u>		<u>32,322</u>	<u>2,412,215</u>	<u>14,464</u>		<u>2,394,357</u>			
37	Net operating income for a return (L4 - L37)	<u>\$1,016,298</u>	<u>\$29,389</u>	<u>\$1,045,687</u>		<u>\$107,706</u>	<u>\$1,153,392</u>	<u>\$48,197</u>		<u>\$1,093,884</u>			

CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 400

**FOOTNOTES TO SCHEDULE 3(a)(1)
For The Test Year Ended March 31, 2026**

Public Staff WSIP Exhibit 1

Schedule 3(a)(1)

Page 2 of 2

**Rate Year 3
CWSNC WATER OPERATIONS**

- [1] Column (c) minus Column (a), unless otherwise footnoted.
- [2] Column (a) plus Column (c), unless otherwise footnoted.
- [3] Based on the recommendation of Public Staff Engineer Darden.
- [4] Public Staff WSIP Exh bit 1, Schedule 3-1(a), Column (i), Line 4.
- [5] Public Staff WSIP Exh bit 1, Schedule 3-2(a), Column (c), Line 6.
- [6] Public Staff WSIP Exh bit 1, Schedule 3-4(a), Column (c), Line 6.
- [7] Public Staff WSIP Exh bit 1, Schedule 3-5(1), Column (c), Line 7.
- [8] Public Staff WSIP Exh bit 1, Schedule 3-6(a), Column (c), Line 6.
- [9] Public Staff WSIP Exh bit 1, Schedule 3-7(a), Column (c), Line 6.
- [10] Based on reviewing of the Company's data.
- [11] Public Staff WSIP Exh bit 1, Schedule 3-8(a), Column (c), Line 6.
- [12] Public Staff WSIP Exh bit 1, Schedule 3-9(a), Column (c), Line 6.
- [13] Public Staff WSIP Exh bit 1, Schedule 3-10(a), Column (c), Line 6.
- [14] Public Staff WSIP Exh bit 1, Schedule 3-3(a), Column (c), Line 6.
- [15] Public Staff WSIP Exh bit 1, Schedule 3-11(a), Column (c), Line 6.
- [16] Public Staff WSIP Exh bit 1, Schedule 3-12(a), Column (d), Line 11.
- [17] Public Staff WSIP Exh bit 1, Schedule 3-13(a), Column (c), Line 6.
- [18] Public Staff WSIP Exh bit 1, Schedule 3-14(a), Column (c), Line 6.
- [19] Public Staff WSIP Exh bit 1, Schedule 3-15(a), Column (c), Line 10.
- [20] Public Staff WSIP Exh bit 1, Schedule 3-16(a), Column (c), Line 6.
- [21] Public Staff WSIP Exh bit 1, Schedule 3-17(a), Column (c), Line 6.
- [22] Public Staff WSIP Exh bit 1, Schedule 3-18(a), Column (c), Line 5.
- [23] Public Staff WSIP Exh bit 1, Schedule 3-18(a), Column (c), Line 13.
- [24] Public Staff WSIP Exh bit 1, Schedule 3-19(a), Column (c), Line 6.
- [25] Public Staff WSIP Exh bit 1, Schedule 3-21(a), Column (c), Line 6.
- [26] Public Staff WSIP Exh bit 1, Schedule 3-20(a), Column (c), Line 6.
- [27] Line 4 Column (c) multiplied by 0.14%.
- [28] Calculated based on the Public Staff's workpaper.
- [29] Public Staff WSIP Exh bit 1, Schedule 3-22(a)(3), Column (g), Line 16.
- [30] Public Staff WSIP Exh bit 1, Schedule 3-22(a)(3), Column (g), Line 18.
- [31] Column (e) minus Column (c), unless otherwise footnoted.
- [32] Column (c) plus Column (d), unless otherwise footnoted.
- [33] Public Staff WSIP Exh bit 1, Schedule 3-1(a), Column (i), Line 8.
- [34] Public Staff WSIP Exh bit 1, Schedule 3-2(a), Column (c), Line 9.
- [35] Line 4 Column (e) multiplied by 0.14%.
- [36] Public Staff WSIP Exh bit 1, Schedule 3-22(a)(3), Column (h), Line 16.
- [37] Public Staff WSIP Exh bit 1, Schedule 3-22(a)(3), Column (h), Line 18.
- [38] Column (g) minus Column (c), unless otherwise footnoted.
- [39] Column (c) plus Column (f), unless otherwise footnoted.
- [40] Revenue requirement as calculated by the Public Staff.
- [41] Public Staff WSIP Exh bit 1, Schedule 3-1(a), Column (i), Line 12.
- [42] Public Staff WSIP Exh bit 1, Schedule 3-2(a), Column (c), Line 12.
- [43] Line 4 Column (g) multiplied by 0.14%.
- [44] Public Staff WSIP Exh bit 1, Schedule 3-22(a)(3), Column (i), Line 16.
- [45] Public Staff WSIP Exh bit 1, Schedule 3-22(a)(3), Column (i), Line 18.

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CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 400

FOOTNOTES TO SCHEDULE 3(b)

For The Test Year Ended March 31, 2026

**Rate Year 3
CWSNC SEWER OPERATIONS**

Public Staff WSIP Exhibit 1

Schedule 3(b)(1)

Page 2 of 2

- [1] Column (c) minus Column (a), unless otherwise footnoted.
- [2] Column (a) plus Column (c), unless otherwise footnoted.
- [3] Based on the recommendation of Public Staff Engineer Darden.
- [4] Public Staff WSIP Exh bit 1, Schedule 3-1(b), Column (i), Line 4.
- [5] Public Staff WSIP Exh bit 1, Schedule 3-2(b), Column (c), Line 6.
- [6] Public Staff WSIP Exh bit 1, Schedule 3-4(b), Column (c), Line 6.
- [7] Public Staff WSIP Exh bit 1, Schedule 3-5(2), Column (c), Line 7.
- [8] Public Staff WSIP Exh bit 1, Schedule 3-6(b), Column (c), Line 6.
- [9] Public Staff WSIP Exh bit 1, Schedule 3-7(b), Column (c), Line 6.
- [10] Based on reviewing of the Company's data.
- [11] Public Staff WSIP Exh bit 1, Schedule 3-8(b), Column (c), Line 6.
- [12] Public Staff WSIP Exh bit 1, Schedule 3-9(b), Column (c), Line 6.
- [13] Public Staff WSIP Exh bit 1, Schedule 3-10(b), Column (c), Line 6.
- [14] Public Staff WSIP Exh bit 1, Schedule 3-3(b), Column (c), Line 6.
- [15] Public Staff WSIP Exh bit 1, Schedule 3-11(b), Column (c), Line 6.
- [16] Public Staff WSIP Exh bit 1, Schedule 3-12(b), Column (e), Line 11.
- [17] Public Staff WSIP Exh bit 1, Schedule 3-13(b), Column (c), Line 6.
- [18] Public Staff WSIP Exh bit 1, Schedule 3-14(b), Column (c), Line 6.
- [19] Public Staff WSIP Exh bit 1, Schedule 3-15(b), Column (c), Line 10.
- [20] Public Staff WSIP Exh bit 1, Schedule 3-16(b), Column (c), Line 6.
- [21] Public Staff WSIP Exh bit 1, Schedule 3-17(b), Column (c), Line 6.
- [22] Public Staff WSIP Exh bit 1, Schedule 3-18(b), Column (c), Line 5.
- [23] Public Staff WSIP Exh bit 1, Schedule 3-18(b), Column (c), Line 13.
- [24] Public Staff WSIP Exh bit 1, Schedule 3-19(b), Column (c), Line 6.
- [25] Public Staff WSIP Exh bit 1, Schedule 3-21(b), Column (c), Line 6.
- [26] Public Staff WSIP Exh bit 1, Schedule 3-20(b), Column (c), Line 6.
- [27] Line 4 Column (c) multiplied by 0.14%.
- [28] Calculated based on the Public Staff's workpaper.
- [29] Public Staff WSIP Exh bit 1, Schedule 3-22(b)(3), Column (g), Line 16.
- [30] Public Staff WSIP Exh bit 1, Schedule 3-22(b)(3), Column (g), Line 18.
- [31] Column (e) minus Column (c), unless otherwise footnoted.
- [32] Column (c) plus Column (d), unless otherwise footnoted.
- [33] Public Staff WSIP Exh bit 1, Schedule 3-1(b), Column (i), Line 8.
- [34] Public Staff WSIP Exh bit 1, Schedule 3-2(b), Column (c), Line 9.
- [35] Line 4 Column (e) multiplied by 0.14%.
- [36] Public Staff WSIP Exh bit 1, Schedule 3-22(b)(3), Column (h), Line 16.
- [37] Public Staff WSIP Exh bit 1, Schedule 3-22(b)(3), Column (h), Line 18.
- [38] Column (g) minus Column (c), unless otherwise footnoted.
- [39] Column (c) plus Column (f), unless otherwise footnoted.
- [40] Revenue requirement as calculated by the Public Staff.
- [41] Public Staff WSIP Exh bit 1, Schedule 3-1(b), Column (i), Line 12.
- [42] Public Staff WSIP Exh bit 1, Schedule 3-2(b), Column (c), Line 12.
- [43] Line 4 Column (g) multiplied by 0.14%.
- [44] Public Staff WSIP Exh bit 1, Schedule 3-22(b)(3), Column (i), Line 16.
- [45] Public Staff WSIP Exh bit 1, Schedule 3-22(b)(3), Column (i), Line 18.

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CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 400**FOOTNOTES TO SCHEDULE 3(c)****For The Test Year Ended March 31, 2026**

Public Staff WSIP Exhibit 1

Schedule 3(c)(1)

Page 2 of 2

**Rate Year 3
BF/FH/TC WATER OPERATIONS**

- [1] Column (c) minus Column (a), unless otherwise footnoted.
- [2] Column (a) plus Column (c), unless otherwise footnoted.
- [3] Based on the recommendation of Public Staff Engineer Darden.
- [4] Public Staff WSIP Exh bit 1, Schedule 3-1(c), Column (i), Line 4.
- [5] Public Staff WSIP Exh bit 1, Schedule 3-2(c), Column (c), Line 6.
- [6] Public Staff WSIP Exh bit 1, Schedule 3-4(c), Column (c), Line 6.
- [7] Public Staff WSIP Exh bit 1, Schedule 3-5(3), Column (c), Line 7.
- [8] Public Staff WSIP Exh bit 1, Schedule 3-6(c), Column (c), Line 6.
- [9] Public Staff WSIP Exh bit 1, Schedule 3-7(c), Column (c), Line 6.
- [10] Based on reviewing of the Company's data.
- [11] Public Staff WSIP Exh bit 1, Schedule 3-8(c), Column (c), Line 6.
- [12] Public Staff WSIP Exh bit 1, Schedule 3-9(c), Column (c), Line 6.
- [13] Public Staff WSIP Exh bit 1, Schedule 3-10(c), Column (c), Line 6.
- [14] Public Staff WSIP Exh bit 1, Schedule 3-3(c), Column (c), Line 6.
- [15] Public Staff WSIP Exh bit 1, Schedule 3-11(c), Column (c), Line 6.
- [16] Public Staff WSIP Exh bit 1, Schedule 3-12(c), Column (f), Line 11.
- [17] Public Staff WSIP Exh bit 1, Schedule 3-13(c), Column (c), Line 6.
- [18] Public Staff WSIP Exh bit 1, Schedule 3-14(c), Column (c), Line 6.
- [19] Public Staff WSIP Exh bit 1, Schedule 3-15(c), Column (c), Line 10.
- [20] Public Staff WSIP Exh bit 1, Schedule 3-16(c), Column (c), Line 6.
- [21] Public Staff WSIP Exh bit 1, Schedule 3-17(c), Column (c), Line 6.
- [22] Public Staff WSIP Exh bit 1, Schedule 3-18(c), Column (c), Line 5.
- [23] Public Staff WSIP Exh bit 1, Schedule 3-18(c), Column (c), Line 13.
- [24] Public Staff WSIP Exh bit 1, Schedule 3-19(c), Column (c), Line 6.
- [25] Public Staff WSIP Exh bit 1, Schedule 3-21(c), Column (c), Line 6.
- [26] Public Staff WSIP Exh bit 1, Schedule 3-20(c), Column (c), Line 6.
- [27] Line 4 Column (c) multiplied by 0.14%.
- [28] Calculated based on the Public Staff's workpaper.
- [29] Public Staff WSIP Exh bit 1, Schedule 3-22(c)(3), Column (g), Line 16.
- [30] Public Staff WSIP Exh bit 1, Schedule 3-22(c)(3), Column (g), Line 18.
- [31] Column (e) minus Column (c), unless otherwise footnoted.
- [32] Column (c) plus Column (d), unless otherwise footnoted.
- [33] Public Staff WSIP Exh bit 1, Schedule 3-1(c), Column (i), Line 8.
- [34] Public Staff WSIP Exh bit 1, Schedule 3-2(c), Column (c), Line 9.
- [35] Line 4 Column (e) multiplied by 0.14%.
- [36] Public Staff WSIP Exh bit 1, Schedule 3-22(c)(3), Column (h), Line 16.
- [37] Public Staff WSIP Exh bit 1, Schedule 3-22(c)(3), Column (h), Line 18.
- [38] Column (g) minus Column (c), unless otherwise footnoted.
- [39] Column (c) plus Column (f), unless otherwise footnoted.
- [40] Revenue requirement as calculated by the Public Staff.
- [41] Public Staff WSIP Exh bit 1, Schedule 3-1(c), Column (i), Line 12.
- [42] Public Staff WSIP Exh bit 1, Schedule 3-2(c), Column (c), Line 12.
- [43] Line 4 Column (g) multiplied by 0.14%.
- [44] Public Staff WSIP Exh bit 1, Schedule 3-22(c)(3), Column (i), Line 16.
- [45] Public Staff WSIP Exh bit 1, Schedule 3-22(c)(3), Column (i), Line 18.

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CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 400

FOOTNOTES TO SCHEDULE 3(d)

For The Test Year Ended March 31, 2026

Public Staff WSIP Exhibit 1

Schedule 3(d)(1)

Page 2 of 2

**Rate Year 3
BF/FH SEWER OPERATIONS**

- [1] Column (c) minus Column (a), unless otherwise footnoted.
- [2] Column (a) plus Column (c), unless otherwise footnoted.
- [3] Based on the recommendation of Public Staff Engineer Darden.
- [4] Public Staff WSIP Exh bit 1, Schedule 3-1(d), RY3, Column (c), Line 4.
- [5] Public Staff WSIP Exh bit 1, Schedule 3-2(d), Column (c), Line 6.
- [6] Public Staff WSIP Exh bit 1, Schedule 3-4(d), Column (c), Line 6.
- [7] Public Staff WSIP Exh bit 1, Schedule 3-5(4), Column (c), Line 7.
- [8] Public Staff WSIP Exh bit 1, Schedule 3-6(d), Column (c), Line 6.
- [9] Public Staff WSIP Exh bit 1, Schedule 3-7(d), Column (c), Line 6.
- [10] Based on reviewing of the Company's data.
- [11] Public Staff WSIP Exh bit 1, Schedule 3-8(d), Column (c), Line 6.
- [12] Public Staff WSIP Exh bit 1, Schedule 3-9(d), Column (c), Line 6.
- [13] Public Staff WSIP Exh bit 1, Schedule 3-10(d), Column (c), Line 6.
- [14] Public Staff WSIP Exh bit 1, Schedule 3-3(d), Column (c), Line 6.
- [15] Public Staff WSIP Exh bit 1, Schedule 3-11(d), Column (c), Line 6.
- [16] Public Staff WSIP Exh bit 1, Schedule 3-12(d), Column (g), Line 11.
- [17] Public Staff WSIP Exh bit 1, Schedule 3-13(d), Column (c), Line 6.
- [18] Public Staff WSIP Exh bit 1, Schedule 3-14(d), Column (c), Line 6.
- [19] Public Staff WSIP Exh bit 1, Schedule 3-15(d), Column (c), Line 10.
- [20] Public Staff WSIP Exh bit 1, Schedule 3-16(d), Column (c), Line 6.
- [21] Public Staff WSIP Exh bit 1, Schedule 3-17(d), Column (c), Line 6.
- [22] Public Staff WSIP Exh bit 1, Schedule 3-18(d), Column (c), Line 5.
- [23] Public Staff WSIP Exh bit 1, Schedule 3-18(d), Column (c), Line 13.
- [24] Public Staff WSIP Exh bit 1, Schedule 3-19(d), Column (c), Line 6.
- [25] Public Staff WSIP Exh bit 1, Schedule 3-21(d), Column (c), Line 6.
- [26] Public Staff WSIP Exh bit 1, Schedule 3-20(d), Column (c), Line 6.
- [27] Line 4 Column (c) multiplied by 0.14%.
- [28] Calculated based on the Public Staff's workpaper.
- [29] Public Staff WSIP Exh bit 1, Schedule 3-22(d)(3), Column (g), Line 16.
- [30] Public Staff WSIP Exh bit 1, Schedule 3-22(d)(3), Column (g), Line 18.
- [31] Column (e) minus Column (c), unless otherwise footnoted.
- [32] Column (c) plus Column (d), unless otherwise footnoted.
- [33] Public Staff WSIP Exh bit 1, Schedule 3-1(d), RY3, Column (c), Line 8.
- [34] Public Staff WSIP Exh bit 1, Schedule 3-2(d), Column (c), Line 9.
- [35] Line 4 Column (e) multiplied by 0.14%.
- [36] Public Staff WSIP Exh bit 1, Schedule 3-22(d)(3), Column (h), Line 16.
- [37] Public Staff WSIP Exh bit 1, Schedule 3-22(d)(3), Column (h), Line 18.
- [38] Column (g) minus Column (c), unless otherwise footnoted.
- [39] Column (c) plus Column (f), unless otherwise footnoted.
- [40] Revenue requirement as calculated by the Public Staff.
- [41] Public Staff WSIP Exh bit 1, Schedule 3-1(d), RY3, Column (c), Line 12.
- [42] Public Staff WSIP Exh bit 1, Schedule 3-2(d), Column (c), Line 12.
- [43] Line 4 Column (g) multiplied by 0.14%.

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Dec 05 2022

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO MISCELLANEOUS REVENUES
For The Test Year Ended March 31, 2022

Public Staff WSIP Exhibit 1
Schedule 3-1(a)

CWSNC WATER OPERATIONS		<u>Base Year</u>		
		Amount Per Before Adjustment (a)	Public Staff Adjustments [3] (b)	Amount Per Public Staff [4] (c)
<u>Present Rates:</u>				
1	Forfeited discounts	\$0 [1]	\$63,183	\$63,183 [5]
2	Other water/sewer revenues	\$90,390 [1]	(0)	90,390 [6]
3	Sale of utility property	0 [1]	18,373	18,373 [7]
4	Total miscellaneous revenues (Sum of L1 thru L3)	<u>\$90,390</u>	<u>\$81,555</u>	<u>\$171,946</u>
<u>Company Proposed Rates:</u>				
5	Forfeited discounts	\$63,183 [2]	\$4,621	\$67,804 [8]
6	Other water/sewer revenues	90,390 [2]	0	90,390
7	Sale of utility property	18,373 [2]	0	18,373
8	Total miscellaneous revenues (Sum of L5 thru L7)	<u>\$171,946</u>	<u>\$4,621</u>	<u>\$176,567</u>
<u>Public Staff Recommended Rates:</u>				
9	Forfeited discounts	\$63,183 [2]	\$1,194	\$64,377 [9]
10	Other water/sewer revenues	90,390 [2]	0	90,390
11	Sale of utility property	18,373 [2]	0	18,373
12	Total miscellaneous revenues (Sum of L9 thru L11)	<u>\$171,946</u>	<u>\$1,194</u>	<u>\$173,140</u>

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

[2] Adjusted amount per Public Staff, Column (c), Lines 1 thru 3.

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

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

[5] Public Staff WSIP Exhibit 1, Schedule 3-1(a)(1), Column (a), Line 6.

[6] Update other revenues through September 2021 per Company's information.

[7] Added missing other revenue per examination of Company's records

[8] Public Staff WSIP Exhibit 1, Schedule 3-1(a)(1), Column (a), Line 9.

[9] Public Staff WSIP Exhibit 1, Schedule 3-1(a)(1), Column (a), Line 12.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO MISCELLANEOUS REVENUES
For The Test Year Ended March 31, 2022

Public Staff WSIP Exhibit 1
Schedule 3-1(b)

Line No.		CWSNC SEWER OPERATIONS		Base Year	
		Item	Amount Per Before Adjustment (a)	Public Staff Adjustments [3] (b)	Amount Per Public Staff [4] (c)
<u>Present Rates:</u>					
1		Forfeited discounts	\$0 [1]	\$45,511	\$45,511 [5]
2		Other water/sewer revenues	73,544 [1]	(0)	73,544 [6]
3		Sale of utility property	0 [1]	10,961	10,961 [7]
4		Total miscellaneous revenues (Sum of L1 thru L3)	<u>\$73,544</u>	<u>\$56,472</u>	<u>\$130,016</u>
<u>Company Proposed Rates:</u>					
5		Forfeited discounts	\$45,511 [2]	\$4,572	\$50,083 [8]
6		Other water/sewer revenues	73,544 [2]	0	73,544
7		Sale of utility property	10,961 [2]	0	10,961
8		Total miscellaneous revenues (Sum of L5 thru L7)	<u>\$130,016</u>	<u>\$4,572</u>	<u>\$134,588</u>
<u>Public Staff Recommended Rates:</u>					
9		Forfeited discounts	\$45,511 [2]	\$3,302	\$48,813 [9]
10		Other water/sewer revenues	73,544 [2]	0	73,544
11		Sale of utility property	10,961 [2]	0	10,961
12		Total miscellaneous revenues (Sum of L9 thru L11)	<u>\$130,016</u>	<u>\$3,302</u>	<u>\$133,318</u>

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

[2] Adjusted amount per Public Staff, Column (c), Lines 1 thru 3.

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

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

[5] Public Staff WSIP Exhibit 1, Schedule 3-1(a)(1), Column (b), Line 6.

[6] Update other revenues through September 2021 per Company's information.

[7] Added missing other revenue per examination of Company's records

[8] Public Staff WSIP Exhibit 1, Schedule 3-1(a)(1), Column (b), Line 9.

[9] Public Staff WSIP Exhibit 1, Schedule 3-1(a)(1), Column (b), Line 12.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO MISCELLANEOUS REVENUES
For The Test Year Ended March 31, 2022

Public Staff WSIP Exhibit 1
Schedule 3-1(c)

BF/FH/TC WATER OPERATIONS		<u>Base Year</u>		
Line No.	Item	Amount Per Before Adjustment (a)	Public Staff Adjustments [3] (b)	Amount Per Public Staff [4] (c)
<u>Present Rates:</u>				
1	Forfeited discounts	\$0 [1]	\$5,289	\$5,289 [5]
2	Other water/sewer revenues	7,861 [1]	0	7,861 [6]
3	Sale of utility property	0 [1]	1,182	1,182 [7]
4	Total miscellaneous revenues (Sum of L1 thru L3)	<u>\$7,861</u>	<u>\$6,472</u>	<u>\$14,332</u>
<u>Company Proposed Rates:</u>				
5	Forfeited discounts	\$5,289 [2]	\$666	\$5,955 [8]
6	Other water/sewer revenues	7,861 [2]	0	7,861
7	Sale of utility property	1,182 [2]	0	1,182
8	Total miscellaneous revenues (Sum of L5 thru L7)	<u>\$14,332</u>	<u>\$666</u>	<u>\$14,998</u>
<u>Public Staff Recommended Rates:</u>				
9	Forfeited discounts	\$5,289 [2]	\$284	\$5,573 [9]
10	Other water/sewer revenues	7,861 [2]	0	7,861
11	Sale of utility property	1,182 [2]	0	1,182
12	Total miscellaneous revenues (Sum of L9 thru L11)	<u>\$14,332</u>	<u>\$284</u>	<u>\$14,616</u>

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

[2] Adjusted amount per Public Staff, Column (c), Lines 1 thru 3.

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

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

[5] Public Staff WSIP Exhibit 1, Schedule 3-1(a)(1), Column (c), Line 6.

[6] Update other revenues through September 2021 per Company's information.

[7] Added missing other revenue per examination of Company's records

[8] Public Staff WSIP Exhibit 1, Schedule 3-1(a)(1), Column (c), Line 9.

[9] Public Staff WSIP Exhibit 1, Schedule 3-1(a)(1), Column (c), Line 12.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO MISCELLANEOUS REVENUES
For The Test Year Ended March 31, 2022

Public Staff WSIP Exhibit 1
Schedule 3-1(d)

BF/FH SEWER OPERATIONS		Base Year		
Line No.	Item	Amount Per Before Adjustment (a)	Public Staff Adjustments [3] (b)	Amount Per Public Staff [4] (c)
<u>Present Rates:</u>				
1	Forfeited discounts	\$0 [1]	\$7,094	\$7,094 [5]
2	Other water/sewer revenues	12,471 [1]	(0)	12,471 [6]
3	Sale of utility property	0 [1]	1,210	1,210 [7]
4	Total miscellaneous revenues (Sum of L1 thru L3)	<u>\$12,471</u>	<u>\$8,304</u>	<u>\$20,775</u>
<u>Company Proposed Rates:</u>				
5	Forfeited discounts	\$7,094 [2]	\$1,070	\$8,164 [8]
6	Other water/sewer revenues	12,471 [2]	0	12,471
7	Sale of utility property	1,210 [2]	0	1,210
8	Total miscellaneous revenues (Sum of L5 thru L7)	<u>\$20,775</u>	<u>\$1,070</u>	<u>\$21,845</u>
<u>Public Staff Recommended Rates:</u>				
9	Forfeited discounts	\$7,094 [2]	\$58	\$7,152 [9]
10	Other water/sewer revenues	12,471 [2]	0	12,471
11	Sale of utility property	1,210 [2]	0	1,210
12	Total miscellaneous revenues (Sum of L9 thru L11)	<u>\$20,775</u>	<u>\$58</u>	<u>\$20,833</u>

- [1] Per examination of Company's financial records.
[2] Adjusted amount per Public Staff, Column (c), Lines 1 thru 3.
[3] Column (c) minus Column (a), unless otherwise footnoted.
[4] Column (a) plus Column (b), unless otherwise footnoted.
[5] Public Staff WSIP Exhibit 1, Schedule 3-1(a)(1), Column (d), Line 6.
[6] Update other revenues through September 2021 per Company's information.
[7] Added missing other revenue per examination of Company's records
[8] Public Staff WSIP Exhibit 1, Schedule 3-1(a)(1), Column (d), Line 9.
[9] Public Staff WSIP Exhibit 1, Schedule 3-1(a)(1), Column (d), Line 12.

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Dec 05 2022

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO MISCELLANEOUS REVENUES
For The Rate Year 1 - Rate Year 3 Ended March
31, 2024 -2026

Public Staff WS P Exhibit 1
Schedule 3-1(a)

CWSNC WATER OPERATIONS		Rate Year 1			Rate Year 2			Rate Year 3		
Line No.	Item	Amount Per Before Adjustment (a)	Public Staff Adjustments (b)	Amount Per Public Staff (c)	Amount Per Before Adjustment (d)	Public Staff Adjustments (e)	Amount Per Public Staff (f)	Amount Per Before Adjustment (g)	Public Staff Adjustments (h)	Amount Per Public Staff (i)
Present Rates										
1	Forfeited discounts	\$0 [1]	\$67,804	\$67,804 [5]	\$83,166 [1]	(\$9,220)	\$73,946	\$87,883 [1]	(\$10,712)	\$77,171
2	Other water/sewer revenues	90,390 [1]	0	90,390 [6]	90,390 [1]	\$0	90,390	90,390 [1]	\$0	90,390
3	Sale of utility property	0 [1]	18,373	18,373 [7]	0 [1]	18,373	18,373	0 [1]	18,373	18,373
4	Total miscellaneous revenues (Sum of L1 thru L3)	<u>\$90,390</u>	<u>\$86,177</u>	<u>\$176,567</u>	<u>\$173,557</u>	<u>\$9,153</u>	<u>\$182,709</u>	<u>\$178,273</u>	<u>\$7,661</u>	<u>\$185,935</u>
Company Proposed Rates										
5	Forfeited discounts	\$67,804 [2]	6,142	\$73,946 [8]	\$73,946 [2]	\$3,225	\$77,171	\$77,171 [2]	\$3,239	\$80,411
6	Other water/sewer revenues	90,390 [2]	0	90,390	90,390 [2]	\$0	90,390	90,390 [2]	\$0	90,390
7	Sale of utility property	18,373 [2]	0	18,373	18,373 [2]	\$0	18,373	18,373 [2]	\$0	18,373
8	Total miscellaneous revenues (Sum of L5 thru L7)	<u>\$176,567</u>	<u>\$6,142</u>	<u>\$182,709</u>	<u>\$182,709</u>	<u>\$3,225</u>	<u>\$185,935</u>	<u>\$185,935</u>	<u>\$3,239</u>	<u>\$189,174</u>
Public Staff Recommended Rates										
9	Forfeited discounts	\$67,804 [2]	(\$108)	\$67,696 [9]	\$73,946 [2]	(\$3,124)	\$70,822	\$77,171 [2]	(\$5,506)	\$71,666
10	Other water/sewer revenues	90,390 [2]	0	90,390	90,390 [2]	0	90,390	90,390 [2]	0	90,390
11	Sale of utility property	18,373 [2]	0	18,373	18,373 [2]	0	18,373	18,373 [2]	0	18,373
12	Total miscellaneous revenues (Sum of L9 thru L11)	<u>\$176,567</u>	<u>(\$108)</u>	<u>\$176,459</u>	<u>\$182,709</u>	<u>(\$3,124)</u>	<u>\$179,586</u>	<u>\$185,935</u>	<u>(\$5,506)</u>	<u>\$180,429</u>

- [1] Per examination of Company's financial records.
[2] Adjusted amount per Public Staff, Column (c), Lines 1 thru 3.
[3] Column (c) minus Column (a), unless otherwise footnoted.
[4] Column (a) plus Column (b), unless otherwise footnoted.
[5] Public Staff WSIP Exhibit 1, Schedule 3-1(a)(1), Column (a), Line 6.
[6] Update other revenues through September 2021 per Company's information.
[7] Added missing other revenue per examination of Company's records.
[8] Public Staff WSIP Exhibit 1, Schedule 3-1(a)(1), Column (a), Line 9.
[9] Public Staff WSIP Exhibit 1, Schedule 3-1(a)(1), Column (a), Line 12.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO MISCELLANEOUS REVENUES
For The Rate Year 1 - Rate Year 3 Ended March
31, 2024 -2026

Public Staff WS P Exhibit 1
Schedule 3-1(b)

CWSNC SEWER OPERATIONS		Rate Year 1			Rate Year 2			Rate Year 3		
Line No.	Item	Amount Per Before Adjustment (a)	Public Staff Adjustments (b) [3]	Amount Per Public Staff (c) [4]	Amount Per Before Adjustment (d)	Public Staff Adjustments (e) [3]	Amount Per Public Staff (f) [4]	Amount Per Before Adjustment (g)	Public Staff Adjustments (h) [3]	Amount Per Public Staff (i)
Present Rates										
1	Forfeited discounts	\$0 [1]	\$50,083	\$50,083 [5]	\$51,217 [1]	\$4,621	\$55,838 [5]	\$55,743 [1]	\$3,435	\$59,178 [5]
2	Other water/sewer revenues	73544 [1]	0	73544 [6]	73544 [1]	0	73544 [6]	73544 [1]	0	73544 [6]
3	Sale of utility property	0 [1]	10961	10961 [7]	0 [1]	10961	10961 [7]	0 [1]	10961	10961 [7]
4	Total miscellaneous revenues (Sum of L1 thru L3)	<u>\$73,544</u>	<u>\$61,044</u>	<u>\$134,588</u>	<u>\$124,761</u>	<u>\$15,583</u>	<u>\$140,344</u>	<u>\$129,287</u>	<u>\$14,396</u>	<u>\$143,684</u>
Company Proposed Rates										
5	Forfeited discounts	\$50,083 [2]	\$5,755	\$55,838 [8]	\$55,838 [2]	\$3,340	\$59,178 [8]	\$59,178 [2]	\$3,614	\$62,792 [8]
6	Other water/sewer revenues	73544 [2]	0	73544	73544 [2]	0	73544	73544 [2]	0	73544
7	Sale of utility property	10961 [2]	0	10961	10961 [2]	0	10961	10961 [2]	0	10961
8	Total miscellaneous revenues (Sum of L5 thru L7)	<u>\$134,588</u>	<u>\$5,755</u>	<u>\$140,344</u>	<u>\$140,344</u>	<u>\$3,340</u>	<u>\$143,684</u>	<u>\$143,684</u>	<u>\$3,614</u>	<u>\$147,298</u>
Public Staff Recommended Rates										
9	Forfeited discounts	\$50,083 [2]	\$2,366	\$52,448 [9]	\$55,838 [2]	(\$2,154)	\$53,684 [9]	\$59,178 [2]	(\$801)	\$58,377 [9]
10	Other water/sewer revenues	73544 [2]	0	73544	73544 [2]	0	73544	73544 [2]	0	73544
11	Sale of utility property	10961 [2]	0	10961	10961 [2]	0	10961	10961 [2]	0	10961
12	Total miscellaneous revenues (Sum of L9 thru L11)	<u>\$134,588</u>	<u>\$2,366</u>	<u>\$136,954</u>	<u>\$140,344</u>	<u>(\$2,154)</u>	<u>\$138,190</u>	<u>\$143,684</u>	<u>(\$801)</u>	<u>\$142,882</u>

- [1] Per examination of Company's financial records.
[2] Adjusted amount per Public Staff, Column (c), Lines 1 thru 3.
[3] Column (c) minus Column (a), unless otherwise footnoted.
[4] Column (a) plus Column (b), unless otherwise footnoted.
[5] Public Staff WSIP Exhibit 1, Schedule 3-1(a)(1), Column (b), Line 6.
[6] Update other revenues through September 2021 per Company's information.
[7] Added missing other revenue per examination of Company's records.
[8] Public Staff WSIP Exhibit 1, Schedule 3-1(a)(1), Column (b), Line 9.
[9] Public Staff WSIP Exhibit 1, Schedule 3-1(a)(1), Column (b), Line 12.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO MISCELLANEOUS REVENUES
For The Rate Year 1 - Rate Year 3 Ended March
31, 2024 -2026

Public Staff WS P Exhibit 1
Schedule 3-1(c)

BF/FH/TC WATER OPERATIONS		Rate Year 1			Rate Year 2			Rate Year 3		
Line No.	Item	Amount Per Before Adjustment (a)	Public Staff Adjustments (b)	Amount Per Public Staff (c)	Amount Per Before Adjustment (d)	Public Staff Adjustments (e)	Amount Per Public Staff (f)	Amount Per Before Adjustment (g)	Public Staff Adjustments (h)	Amount Per Public Staff (i)
Present Rates										
1	Forfeited discounts	\$0 [1]	\$5,955	\$5,955 [5]	\$6,990 [1]	\$75	\$7,065 [5]	\$7,670 [1]	(\$181)	\$7,489 [5]
2	Other water/sewer revenues	7,861 [1]	0	7,861 [6]	7,861 [1]	0	7,861 [6]	7,861 [1]	0	7,861 [6]
3	Sale of utility property	0 [1]	1,182	1,182 [7]	0 [1]	1,182	1,182 [7]	0 [1]	1,182	1,182 [7]
4	Total miscellaneous revenues (Sum of L1 thru L3)	<u>\$7,861</u>	<u>\$7,137</u>	<u>\$14,998</u>	<u>\$14,851</u>	<u>\$1,257</u>	<u>\$16,108</u>	<u>\$15,531</u>	<u>\$1,001</u>	<u>\$16,531</u>
Company Proposed Rates										
5	Forfeited discounts	\$5,955 [2]	\$1,111	\$7,065 [8]	\$7,065 [2]	\$423	\$7,489 [8]	\$7,489 [2]	\$315	\$7,804 [8]
6	Other water/sewer revenues	7,861 [2]	\$0	7,861	7,861 [2]	0	7,861	7,861 [2]	\$0	7,861
7	Sale of utility property	1,182 [2]	\$0	1,182	1,182 [2]	0	1,182	1,182 [2]	\$0	1,182
8	Total miscellaneous revenues (Sum of L5 thru L7)	<u>\$14,998</u>	<u>\$1,111</u>	<u>\$16,109</u>	<u>\$16,108</u>	<u>\$423</u>	<u>\$16,532</u>	<u>\$16,531</u>	<u>\$316</u>	<u>\$16,847</u>
Public Staff Recommended Rates										
9	Forfeited discounts	\$5,955 [2]	\$418	\$6,373 [9]	\$7,065 [2]	(\$353)	\$6,712 [9]	\$7,489 [2]	(\$634)	\$6,855 [9]
10	Other water/sewer revenues	7,861 [2]	\$0	7,861	7,861 [2]	\$0	7,861	7,861 [2]	\$0	7,861
11	Sale of utility property	1,182 [2]	\$0	1,182	1,182 [2]	\$0	1,182	1,182 [2]	\$0	1,182
12	Total miscellaneous revenues (Sum of L9 thru L11)	<u>\$14,998</u>	<u>\$418</u>	<u>\$15,416</u>	<u>\$16,108</u>	<u>(\$353)</u>	<u>\$15,755</u>	<u>\$16,531</u>	<u>(\$633)</u>	<u>\$15,898</u>

- [1] Per examination of Company's financial records.
[2] Adjusted amount per Public Staff, Column (c), Lines 1 thru 3.
[3] Column (c) minus Column (a), unless otherwise footnoted.
[4] Column (a) plus Column (b), unless otherwise footnoted.
[5] Public Staff WSIP Exhibit 1, Schedule 3-1(a)(1), Column (c), Line 6.
[6] Update other revenues through September 2021 per Company's information.
[7] Added missing other revenue per examination of Company's records.
[8] Public Staff WSIP Exhibit 1, Schedule 3-1(a)(1), Column (c), Line 9.
[9] Public Staff WSIP Exhibit 1, Schedule 3-1(a)(1), Column (c), Line 12.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO MISCELLANEOUS REVENUES
For The Rate Year 1 - Rate Year 3 Ended March
31, 2024 -2026

Public Staff WS P Exhibit 1
Schedule 3-1(d)

BF/FH SEWER OPERATIONS		Rate Year 1				Rate Year 2				Rate Year 3			
Line No.	Item	Amount Per Before Adjustment (a)	Public Staff Adjustments [3] (b)	Amount Per Public Staff [4] (c)	Amount Per Before Adjustment (d)	Public Staff Adjustments [3] (e)	Amount Per Public Staff [4] (f)	Amount Per Before Adjustment (g)	Public Staff Adjustments [3] (h)	Amount Per Public Staff [4] (i)			
<u>Present Rates</u>													
1	Forfeited discounts	\$0 [1]	\$8,164	\$8,164 [5]	\$7,842 [1]	(\$141)	\$7,701 [5]	\$9,396 [1]	(\$211)	\$9,184			
2	Other water/sewer revenues	\$12,471 [1]	\$0	12,471 [6]	12,471 [1]	(\$0)	12,471 [6]	12,471 [1]	(\$0)	12,471			
3	Sale of utility property	0 [1]	\$1,210	1,210 [7]	0 [1]	\$1,210	1,210 [7]	0 [1]	\$1,210	1,210			
4	Total miscellaneous revenues (Sum of L1 thru L3)	\$12,471	\$9,374	\$21,845	\$20,313	\$1,069	\$21,382	\$21,867	\$999	\$22,865			
<u>Company Proposed Rates</u>													
5	Forfeited discounts	\$8,164 [2]	\$341	\$8,505 [8]	\$7,701 [2]	\$1,483	\$9,184 [8]	\$9,184 [2]	\$377	\$9,561			
6	Other water/sewer revenues	12,471 [2]	\$0	12,471	12,471 [2]	\$0	12,471	12,471 [2]	\$0	12,471			
7	Sale of utility property	1,210 [2]	\$0	1,210	1,210 [2]	\$0	1,210	1,210 [2]	\$0	1,210			
8	Total miscellaneous revenues (Sum of L5 thru L7)	\$21,845	\$341	\$22,186	\$21,382	\$1,483	\$22,865	\$22,865	\$377	\$23,242			
<u>Public Staff Recommended Rates</u>													
9	Forfeited discounts	\$8,164 [2]	(\$608)	\$7,557 [9]	\$7,701 [2]	\$1,500	\$9,201 [9]	\$9,184 [2]	\$169	\$9,353			
10	Other water/sewer revenues	12,471 [2]	\$0	12,471	12,471 [2]	\$0	12,471	12,471 [2]	0	12,471			
11	Sale of utility property	1,210 [2]	\$0	1,210	1,210 [2]	\$0	1,210	1,210 [2]	0	1,210			
12	Total miscellaneous revenues (Sum of L9 thru L11)	\$21,845	(\$608)	\$21,238	\$21,382	\$1,500	\$22,882	\$22,865	\$169	\$23,034			

- [1] Per examination of Company's financial records.
[2] Adjusted amount per Public Staff, Column (c), Lines 1 thru 3.
[3] Column (c) minus Column (a), unless otherwise footnoted.
[4] Column (a) plus Column (b), unless otherwise footnoted.
[5] Public Staff WSIP Exhibit 1, Schedule 3-1(a)(1), Column (d), Line 6.
[6] Update other revenues through September 2021 per Company's information.
[7] Added missing other revenue per examination of Company's records.
[8] Public Staff WSIP Exhibit 1, Schedule 3-1(a)(1), Column (d), Line 9.
[9] Public Staff WSIP Exhibit 1, Schedule 3-1(a)(1), Column (d), Line 12.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
CALCULATION OF FORFEITED DISCOUNTS
For The Test Year Ended March 31, 2022

Public Staff WSIP Exhibit 1
Schedule 3-1(a)(1)

Line No.	Item	Base Year			
		CWSNC Water	CWSNC Sewer	BF/FH/TC Water	BF/FH Sewer
		(a)	(b)	(c)	(d)
<u>Test Year:</u>					
1	Forfeited discount rate - 5 Yr Sum	1.42% [1]	1.34% [1]	1.41% [1]	1.34% [1]
2	Forfeited discounts - 5 YR	5	5	5	5
3	Forfeited discounts 5 Yr Average (Ln1 / Ln 2)	0.28%	0.27%	0.28%	0.27% [1]
<u>Present Rates:</u>					
4	Service revenues	\$22,276,705 [2]	\$16,986,117 [5]	\$1,879,444 [8]	\$2,643,518 [11]
5	Forfeited discounts percentage (L3)	0.28%	0.27%	0.28%	0.27%
6	Forfeited discounts (L4 x L5)	\$63,183	\$45,511	\$5,289	\$7,094
<u>Company Proposed Rates:</u>					
7	Service revenues	\$23,906,083 [3]	\$18,692,599 [6]	\$2,116,038 [9]	\$3,042,317 [12]
8	Forfeited discounts percentage (L3)	0.28%	0.27%	0.28%	0.27%
9	Forfeited discounts (L7 x L8)	\$67,804	\$50,083	\$5,955	\$8,164
<u>Public Staff Recommended Rates:</u>					
10	Service revenues	\$22,697,728 [4]	\$18,218,562 [7]	\$1,980,303 [10]	\$2,665,035 [13]
11	Forfeited discounts percentage (L3)	0.28%	0.27%	0.28%	0.27%
12	Forfeited discounts (L10 x L11)	\$64,377	\$48,813	\$5,573	\$7,152

- [1] 3 Yr Avg forfeited discount rate (2017, 2018, 2019) as used in Sub 384. [8] Public Staff WSIP Exh bit 1, Sch 3(c), Column (c), Line 1.
[2] Public Staff WSIP Exhibit 1, Schedule 3(a), Column (c), Line 1. [9] Public Staff WSIP Exh bit 1, Sch 3(c), Column (e), Line 1.
[3] Public Staff WSIP Exhibit 1, Schedule 3(a), Column (e), Line 1. [10] Public Staff WSIP Exh bit 1, Sch 3(c), Column (g), Line 1.
[4] Public Staff WSIP Exhibit 1, Schedule 3(a), Column (g), Line 1. [11] Public Staff WSIP Exh bit 1, Sch 3(d), Column (c), Line 1.
[5] Public Staff WSIP Exhibit 1, Schedule 3(b), Column (c), Line 1. [12] Public Staff WSIP Exh bit 1, Sch 3(d), Column (e), Line 1.
[6] Public Staff WSIP Exhibit 1, Schedule 3(b), Column (e), Line 1. [13] Public Staff WSIP Exh bit 1, Sch 3(d), Column (g), Line 1.
[7] Public Staff WSIP Exhibit 1, Schedule 3(b), Column (g), Line 1.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
CALCULATION OF FORFEITED DISCOUNTS
For The Rate Year 1 - Rate Year 3 Ended March
31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 3-1(a)(1)

CWSNC WATER OPERATIONS

Line No.	Item	Rate Year 1 (a)	Rate Year 2 (b)	Rate Year 3 (c)
Test Year:				
1	Forfieted discount rate - 5 Yr Sum	1.42% [1]	1.42%	1.42%
2	Forfeited discounts - 5 Yr	5	5	5
3	Forfeited discounts 5 Yr Average (Ln1 / Ln 2)	0.28%	0.28%	0.28%
Present Rates:				
4	Service revenues	\$23,906,083 [2]	\$26,071,578 [2]	\$27,208,719 [2]
5	Forfeited discounts percentage (L3)	0.28%	0.28%	0.28%
6	Forfeited discounts (L4 x L5)	\$67,804	\$73,946	\$77,171
Company Proposed Rates:				
7	Service revenues	\$26,071,578 [3]	\$27,208,719 [3]	\$28,350,864 [3]
8	Forfeited discounts percentage (L3)	0.28%	0.28%	0.28%
9	Forfeited discounts (L7 x L8)	\$73,946	\$77,171	\$80,411
Public Staff Recommended Rates:				
10	Service revenues	\$23,867,951 [4]	\$24,970,222 [4]	\$25,267,497 [4]
11	Forfeited discounts percentage (L3)	0.28%	0.28%	0.28%
12	Forfeited discounts (L10 x L11)	\$67,696	\$70,822	\$71,666

- [1] 3 Yr Avg forfeited discount rate (2017, 2018, 2019) as used in Sub 384. [8] Public Staff WSIP Exhibit I, Schedule 3(c), Column (c), Line 1.
 [2] Public Staff WSIP Exhibit I, Schedule 3(a), Column (c), Line 1. [9] Public Staff WSIP Exhibit I, Schedule 3(c), Column (e), Line 1.
 [3] Public Staff WSIP Exhibit I, Schedule 3(a), Column (e), Line 1. [10] Public Staff WSIP Exhibit I, Schedule 3(c), Column (g), Line 1.
 [4] Public Staff WSIP Exhibit I, Schedule 3(a), Column (g), Line 1. [11] Public Staff WSIP Exhibit I, Schedule 3(d), Column (c), Line 1.
 [5] Public Staff WSIP Exhibit I, Schedule 3(b), Column (c), Line 1. [12] Public Staff WSIP Exhibit I, Schedule 3(d), Column (e), Line 1.
 [6] Public Staff WSIP Exhibit I, Schedule 3(b), Column (e), Line 1. [13] Public Staff WSIP Exhibit I, Schedule 3(d), Column (g), Line 1.
 [7] Public Staff WSIP Exhibit I, Schedule 3(b), Column (g), Line 1.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
CALCULATION OF FORFEITED DISCOUNTS
For The Rate Year 1 - Rate Year 3 Ended March
31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 3-1(a)(2)

CWSNC SEWER OPERATIONS

Line No.	Item	Rate Year 1 (a)	Rate Year 2 (b)	Rate Year 3 (c)
Test Year:				
1	Forfieted discount rate - 5 Yr Sum	1.34%	1 34%	1.34%
2	Forfeited discounts - 5 Yr	5	5	5
3	Forfeited discounts 5 Yr Average (Ln1 / Ln 2)	0.27%	0 27%	0.27%
Present Rates:				
4	Service revenues	\$18,692,599 [5]	\$20,840,709 [5]	\$22,087,241 [5]
5	Forfeited discounts percentage (L3)	0.27%	0 27%	0.27%
6	Forfeited discounts (L4 x L5)	\$50,083	\$55,838	\$59,178
Company Proposed Rates:				
7	Service revenues	\$20,840,709 [6]	\$22,087,241 [6]	\$23,436,240 [6]
8	Forfeited discounts percentage (L3)	0.27%	0 27%	0.27%
9	Forfeited discounts (L7 x L8)	\$55,838	\$59,178	\$62,792
Public Staff Recommended Rates:				
10	Service revenues	\$19,575,606 [7]	\$20,036,896 [7]	\$21,788,224 [7]
11	Forfeited discounts percentage (L3)	0.27%	0 27%	0.27%
12	Forfeited discounts (L10 x L11)	\$52,448	\$53,684	\$58,377

- [1] 3 Yr Avg forfeited discount rate (2017, 2018, 2019) as used in Sub 384. [8] Public Staff WSIP Exhibit I, Schedule 3(c), Column (c), Line 1.
 [2] Public Staff WSIP Exhibit I, Schedule 3(a), Column (c), Line 1. [9] Public Staff WSIP Exhibit I, Schedule 3(c), Column (e), Line 1.
 [3] Public Staff WSIP Exhibit I, Schedule 3(a), Column (e), Line 1. [10] Public Staff WSIP Exhibit I, Schedule 3(c), Column (g), Line 1.
 [4] Public Staff WSIP Exhibit I, Schedule 3(a), Column (g), Line 1. [11] Public Staff WSIP Exhibit I, Schedule 3(d), Column (c), Line 1.
 [5] Public Staff WSIP Exhibit I, Schedule 3(b), Column (c), Line 1. [12] Public Staff WSIP Exhibit I, Schedule 3(d), Column (e), Line 1.
 [6] Public Staff WSIP Exhibit I, Schedule 3(b), Column (e), Line 1. [13] Public Staff WSIP Exhibit I, Schedule 3(d), Column (g), Line 1.
 [7] Public Staff WSIP Exhibit I, Schedule 3(b), Column (g), Line 1.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
CALCULATION OF FORFEITED DISCOUNTS
For The Rate Year 1 - Rate Year 3 Ended March
31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 3-1(a)(3)

BF/FH/TC WATER OPERATIONS

Line No.	Item	Rate Year 1	Rate Year 2	Rate Year 3
		(a)	(b)	(c)
Test Year:				
1	Forfeited discount rate - 5 Yr Sum	1.41%	1.41%	1.41%
2	Forfeited discounts - 5 Yr	5	5	5
3	Forfeited discounts 5 Yr Average (Ln1 / Ln 2)	0.28%	0.28%	0.28%
Present Rates:				
4	Service revenues	\$2,116,038 [8]	\$2,510,770 [8]	\$2,661,120 [8]
5	Forfeited discounts percentage (L3)	0.28%	0.28%	0.28%
6	Forfeited discounts (L4 x L5)	\$5,955	\$7,065	7,489
Company Proposed Rates:				
7	Service revenues	\$2,510,770 [9]	\$2,661,120 [9]	\$2,773,136 [9]
8	Forfeited discounts percentage (L3)	0.28%	0.28%	0.28%
9	Forfeited discounts (L7 x L8)	\$7,065	\$7,489	\$7,804
Public Staff Recommended Rates:				
10	Service revenues	\$2,264,556 [10]	\$2,385,192 [10]	\$2,435,992 [10]
11	Forfeited discounts percentage (L3)	0.28%	0.28%	0.28%
12	Forfeited discounts (L10 x L11)	\$6,373	\$6,712	\$6,855

- [1] 3 Yr Avg forfeited discount rate (2017, 2018, 2019) as used in Sub 384. [8] Public Staff WSIP Exhibit I, Schedule 3(c), Column (c), Line 1.
[2] Public Staff WSIP Exhibit I, Schedule 3(a), Column (c), Line 1. [9] Public Staff WSIP Exhibit I, Schedule 3(c), Column (e), Line 1.
[3] Public Staff WSIP Exhibit I, Schedule 3(a), Column (e), Line 1. [10] Public Staff WSIP Exhibit I, Schedule 3(c), Column (g), Line 1.
[4] Public Staff WSIP Exhibit I, Schedule 3(a), Column (g), Line 1. [11] Public Staff WSIP Exhibit I, Schedule 3(d), Column (c), Line 1.
[5] Public Staff WSIP Exhibit I, Schedule 3(b), Column (c), Line 1. [12] Public Staff WSIP Exhibit I, Schedule 3(d), Column (e), Line 1.
[6] Public Staff WSIP Exhibit I, Schedule 3(b), Column (e), Line 1. [13] Public Staff WSIP Exhibit I, Schedule 3(d), Column (g), Line 1.
[7] Public Staff WSIP Exhibit I, Schedule 3(b), Column (g), Line 1.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
CALCULATION OF FORFEITED DISCOUNTS
For The Rate Year 1 - Rate Year 3 Ended March
31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 3-1(a)(3)

BF/FH/TC SEWER OPERATIONS

Line No.	Item	Rate Year 1 (a)	Rate Year 2 (b)	Rate Year 3 (c)
Test Year:				
1	Forfeited discount rate - 5 Yr Sum	1.34%	1.34%	1.34%
2	Forfeited discounts - 5 Yr	5	5	5
3	Forfeited discounts 5 Yr Average (Ln1 / Ln 2)	0.27% [1]	0.27% [1]	0.27% [1]
Present Rates:				
4	Service revenues	\$3,042,317 [11]	\$3,169,302 [11]	\$3,422,492 [11]
5	Forfeited discounts percentage (L3)	0.27%	0.24%	0.27%
6	Forfeited discounts (L4 x L5)	\$8,164	\$7,701	\$9,184
Company Proposed Rates:				
7	Service revenues	\$3,169,302 [12]	\$3,422,492 [12]	\$3,562,955 [12]
8	Forfeited discounts percentage (L3)	0.27%	0.27%	0.27%
9	Forfeited discounts (L7 x L8)	\$8,505	\$9,184	\$9,561
Public Staff Recommended Rates:				
10	Service revenues	\$2,815,916 [13]	\$3,428,727 [13]	\$3,485,348 [13]
11	Forfeited discounts percentage (L3)	0.27%	0.27%	0.27%
12	Forfeited discounts (L10 x L11)	\$7,557	\$9,201	\$9,353

- [1] 3 Yr Avg forfeited discount rate (2017, 2018, 2019) as used in Sub 384. [8] Public Staff WSIP Exhibit I, Schedule 3(c), Column (c), Line 1.
 [2] Public Staff WSIP Exhibit I, Schedule 3(a), Column (c), Line 1. [9] Public Staff WSIP Exhibit I, Schedule 3(c), Column (e), Line 1.
 [3] Public Staff WSIP Exhibit I, Schedule 3(a), Column (e), Line 1. [10] Public Staff WSIP Exhibit I, Schedule 3(c), Column (g), Line 1.
 [4] Public Staff WSIP Exhibit I, Schedule 3(a), Column (g), Line 1. [11] Public Staff WSIP Exhibit I, Schedule 3(d), Column (c), Line 1.
 [5] Public Staff WSIP Exhibit I, Schedule 3(b), Column (c), Line 1. [12] Public Staff WSIP Exhibit I, Schedule 3(d), Column (e), Line 1.
 [6] Public Staff WSIP Exhibit I, Schedule 3(b), Column (e), Line 1. [13] Public Staff WSIP Exhibit I, Schedule 3(d), Column (g), Line 1.
 [7] Public Staff WSIP Exhibit I, Schedule 3(b), Column (g), Line 1.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
CALCULATION OF UNCOLLECTIBLE ACCOUNTS
For The Test Year Ended March 31, 2022

Public Staff WSIP Exhibit 1
Schedule 3-2

Line No.	Item	Base Year			
		CWSNC Water	CWSNC Sewer	BF/FH/TC Water	BF/FH Sewer
		(a)	(b)	(c)	(d)
<u>Test Year:</u>					
1	Uncollectible 5 Year Sum	3.65% [1]	2.12% [1]	11.64% [1]	2.89%
2	Uncollectible 5 Years	5	5	5	5
3	Uncollectible 5 Year Average (Ln1 / L2)	0.73%	0.42%	2.33%	0.58% [1]
<u>Present Rates:</u>					
4	Service revenues	\$22,276,705 [2]	\$16,986,117 [5]	\$1,879,444 [8]	\$2,643,518 [11]
5	Uncollectible accounts percentage (L3)	0.73%	0.42%	2.33%	0.58%
6	Uncollectible accounts (L4 x L5)	\$162,592	\$71,986	\$43,747	\$15,277
<u>Company Proposed Rates:</u>					
7	Service revenues	\$23,906,083 [3]	\$18,692,599 [6]	\$2,116,038 [9]	\$3,042,317 [12]
8	Uncollectible accounts percentage (L3)	0.73%	0.42%	2.33%	0.58%
9	Uncollectible accounts (L7 x L8)	\$174,485	\$79,218	\$49,254	\$17,581
<u>Public Staff Recommended Rates:</u>					
10	Service revenues	\$22,697,728 [4]	\$18,218,562 [7]	\$1,980,303 [10]	\$2,665,035 [13]
11	Uncollectible accounts percentage (L3)	0.73%	0.42%	2.33%	0.58%
12	Uncollectible accounts (L10 x L11)	\$165,665	\$77,209	\$46,095	\$15,401

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

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

[3] Public Staff WSIP Exhibit I, Schedule 3(a), Column (e), Line 1.

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

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

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

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

[8] Public Staff WSIP Exhibit I, Sch 3(c), Column (c), Line 1.

[9] Public Staff WSIP Exhibit I, Sch 3(c), Column (e), Line 1.

[10] Public Staff WSIP Exhibit I, Sch 3(c), Column (g), Line 1.

[11] Public Staff WSIP Exhibit I, Sch 3(d), Column (c), Line 1.

[12] Public Staff WSIP Exhibit I, Sch 3(d), Column (e), Line 1.

[13] Public Staff WSIP Exhibit I, Sch 3(d), Column (g), Line 1.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
CALCULATION OF UNCOLLECTIBLE ACCOUNTS
For The Rate Year 1 - Rate Year 3 Ended March 31,
2024 -2026

Public Staff WSIP Exhibit 1
Schedule 3-2(a)

CWSNC WATER OPERATIONS

Line No.	Item	Rate Year 1	Rate Year 2	Rate Year 3
		(a)	(b)	(c)
	<u>Test Year:</u>			
1	Uncollectible 5 Year Sum	3.65%	3.65%	3.65%
2	Uncollectible 5 Years	5	5	5
3	Uncollectible 5 Year Average (L1 / L2)	0.73%	0.73%	0.73%
	<u>Present Rates:</u>			
4	Service revenues	\$23,906,083 [2]	\$26,071,578 [2]	\$27,208,719 [2]
5	Uncollectible accounts percentage (L3)	0.73%	0.73%	0.73%
6	Uncollectible accounts (L4 x L5)	\$174,485	\$190,290	\$198,590
	<u>Company Proposed Rates:</u>			
7	Service revenues	\$26,071,578 [3]	\$27,208,719 [3]	\$28,350,864 [3]
8	Uncollectible accounts percentage (L3)	0.73%	0.73%	0.73%
9	Uncollectible accounts (L7 x L8)	\$190,290	\$198,590	\$206,926
	<u>Public Staff Recommended Rates:</u>			
10	Service revenues	\$23,867,951 [4]	\$24,970,222 [4]	\$25,267,497 [4]
11	Uncollectible accounts percentage (L3)	0.73%	0.73%	0.73%
12	Uncollectible accounts (L10 x L11)	\$174,207	\$182,252	\$184,422

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

[2] Public Staff WSIP Exhibit 1, Schedule 3(a), Column (c), Line 1.

[3] Public Staff WSIP Exhibit 1, Schedule 3(a), Column (e), Line 1.

[4] Public Staff WSIP Exhibit 1, Schedule 3(a), Column (g), Line 1.

[5] Public Staff WSIP Exhibit 1, Schedule 3(b), Column (c), Line 1.

[6] Public Staff WSIP Exhibit 1, Schedule 3(b), Column (e), Line 1.

[7] Public Staff WSIP Exhibit 1, Schedule 3(b), Column (g), Line 1.

[8] Public Staff WSIP Exhibit 1, Sch 3(c), Column (c), Line 1.

[9] Public Staff WSIP Exhibit 1, Sch 3(c), Column (e), Line 1.

[10] Public Staff WSIP Exhibit 1, Sch 3(c), Column (g), Line 1.

[11] Public Staff WSIP Exhibit 1, Sch 3(d), Column (c), Line 1.

[12] Public Staff WSIP Exhibit 1, Sch 3(d), Column (e), Line 1.

[13] Public Staff WSIP Exhibit 1, Sch 3(d), Column (g), Line 1.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
CALCULATION OF UNCOLLECTIBLE ACCOUNTS
For The Rate Year 1 - Rate Year 3 Ended March 31,
2024 -2026

Public Staff WSIP Exhibit 1
Schedule 3-2(b)

CWSNC SEWER OPERATIONS

Line No.	Item	Rate Year 1 (a)	Rate Year 2 (b)	Rate Year 3 (c)
Test Year:				
1	Uncollectible 5 Year Sum	2.12%	2.12%	2.12%
2	Uncollectible 5 Years	<u>5</u>	<u>5</u>	<u>5</u>
3	Uncollectible 5 Year Average (L1 / L2)	<u>0.42%</u>	<u>0.42%</u>	<u>0.42%</u>
Present Rates:				
4	Service revenues	\$18,692,599 [2]	\$20,840,709 [2]	\$22,087,241 [2]
5	Uncollectible accounts percentage (L3)	0.42%	0.42%	0.42%
6	Uncollectible accounts (L4 x L5)	<u>\$79,218</u>	<u>\$88,321</u>	<u>\$93,604</u>
Company Proposed Rates:				
7	Service revenues	\$20,840,709 [3]	\$22,087,241 [3]	\$23,436,240 [3]
8	Uncollectible accounts percentage (L3)	0.42%	0.42%	0.42%
9	Uncollectible accounts (L7 x L8)	<u>\$88,321</u>	<u>\$93,604</u>	<u>\$99,321</u>
Public Staff Recommended Rates:				
10	Service revenues	\$19,575,606 [4]	\$20,036,896 [4]	\$21,788,224 [4]
11	Uncollectible accounts percentage (L3)	0.42%	0.42%	0.42%
12	Uncollectible accounts (L10 x L11)	<u>\$82,960</u>	<u>\$84,915</u>	<u>\$92,337</u>

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

[2] Public Staff WSIP Exhibit 1, Schedule 3(a), Column (c), Line 1.

[3] Public Staff WSIP Exhibit 1, Schedule 3(a), Column (e), Line 1.

[4] Public Staff WSIP Exhibit 1, Schedule 3(a), Column (g), Line 1.

[5] Public Staff WSIP Exhibit 1, Schedule 3(b), Column (c), Line 1.

[6] Public Staff WSIP Exhibit 1, Schedule 3(b), Column (e), Line 1.

[7] Public Staff WSIP Exhibit 1, Schedule 3(b), Column (g), Line 1.

[8] Public Staff WSIP Exhibit 1, Sch 3(c), Column (c), Line 1.

[9] Public Staff WSIP Exhibit 1, Sch 3(c), Column (e), Line 1.

[10] Public Staff WSIP Exhibit 1, Sch 3(c), Column (g), Line 1.

[11] Public Staff WSIP Exhibit 1, Sch 3(d), Column (c), Line 1.

[12] Public Staff WSIP Exhibit 1, Sch 3(d), Column (e), Line 1.

[13] Public Staff WSIP Exhibit 1, Sch 3(d), Column (g), Line 1.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
CALCULATION OF UNCOLLECTIBLE ACCOUNTS
For The Rate Year 1 - Rate Year 3 Ended March 31,
2024 -2026

Public Staff WSIP Exhibit 1
Schedule 3-2(c)

BF/FH/TC WATER OPERATIONS

Line No.	Item	<u>Rate Year 1</u>	<u>Rate Year 2</u>	<u>Rate Year 3</u>
		(a)	(b)	(c)
	<u>Test Year:</u>			
1	Uncollectible 5 Year Sum	11.64%	11.64%	11.64%
2	Uncollectible 5 Years	<u>5</u>	<u>5</u>	<u>5</u>
3	Uncollectible 5 Year Average (L1 / L2)	<u>2.33%</u>	<u>2.33%</u>	<u>2.33%</u>
	<u>Present Rates:</u>			
4	Service revenues	\$2,116,038 [2]	\$2,510,770 [2]	\$2,661,120 [2]
5	Uncollectible accounts percentage (L3)	<u>2.33%</u>	<u>2.33%</u>	<u>2.33%</u>
6	Uncollectible accounts (L4 x L5)	<u>\$49,254</u>	<u>\$58,443</u>	<u>\$61,942</u>
	<u>Company Proposed Rates:</u>			
7	Service revenues	\$2,510,770 [3]	\$2,661,120 [3]	\$2,773,136 [3]
8	Uncollectible accounts percentage (L3)	<u>2.33%</u>	<u>2.33%</u>	<u>2.33%</u>
9	Uncollectible accounts (L7 x L8)	<u>\$58,443</u>	<u>\$61,942</u>	<u>\$64,550</u>
	<u>Public Staff Recommended Rates:</u>			
10	Service revenues	\$2,264,556 [4]	\$2,385,192 [4]	\$2,435,992 [4]
11	Uncollectible accounts percentage (L3)	<u>2.33%</u>	<u>2.33%</u>	<u>2.33%</u>
12	Uncollectible accounts (L10 x L11)	<u>\$52,712</u>	<u>\$55,520</u>	<u>\$56,702</u>

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

[2] Public Staff WSIP Exhibit 1, Schedule 3(a), Column (c), Line 1.

[3] Public Staff WSIP Exhibit 1, Schedule 3(a), Column (e), Line 1.

[4] Public Staff WSIP Exhibit 1, Schedule 3(a), Column (g), Line 1.

[5] Public Staff WSIP Exhibit 1, Schedule 3(b), Column (c), Line 1.

[6] Public Staff WSIP Exhibit 1, Schedule 3(b), Column (e), Line 1.

[7] Public Staff WSIP Exhibit 1, Schedule 3(b), Column (g), Line 1.

[8] Public Staff WSIP Exhibit 1, Sch 3(c), Column (c), Line 1.

[9] Public Staff WSIP Exhibit 1, Sch 3(c), Column (e), Line 1.

[10] Public Staff WSIP Exhibit 1, Sch 3(c), Column (g), Line 1.

[11] Public Staff WSIP Exhibit 1, Sch 3(d), Column (c), Line 1.

[12] Public Staff WSIP Exhibit 1, Sch 3(d), Column (e), Line 1.

[13] Public Staff WSIP Exhibit 1, Sch 3(d), Column (g), Line 1.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
CALCULATION OF UNCOLLECTIBLE ACCOUNTS
For The Rate Year 1 - Rate Year 3 Ended March 31,
2024 -2026

Public Staff WSIP Exhibit 1
Schedule 3-2(d)

BF/FH/TC SEWER OPERATIONS

Line No.	Item	Rate Year 1	Rate Year 2	Rate Year 3
		(a)	(b)	(c)
	Test Year:			
1	Uncollectible 5 Year Sum	2.89%	2.89%	2.89%
2	Uncollectible 5 Years	\$5	\$5	\$5
3	Uncollectible 5 Year Average (Ln1 / L2)	0.58%	0.58%	0.58%
	Present Rates:			
4	Service revenues	\$3,042,317 [2]	\$3,169,302 [2]	\$3,422,492 [2]
5	Uncollectible accounts percentage (L3)	0.58%	0.58%	0.58%
6	Uncollectible accounts (L4 x L5)	\$17,581	\$18,315	\$19,778
	Company Proposed Rates:			
7	Service revenues	\$3,169,302 [3]	\$3,422,492 [3]	\$3,562,955 [3]
8	Uncollectible accounts percentage (L3)	0.58%	0.58%	0.58%
9	Uncollectible accounts (L7 x L8)	\$18,315	\$19,778	\$20,590
	Public Staff Recommended Rates:			
10	Service revenues	\$2,815,916 [4]	\$3,428,727 [4]	\$3,485,348 [4]
11	Uncollectible accounts percentage (L3)	0.58%	0.58%	0.58%
12	Uncollectible accounts (L10 x L11)	\$16,273	\$19,814	\$20,141

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

[2] Public Staff WSIP Exhibit 1, Schedule 3(a), Column (c), Line 1.

[3] Public Staff WSIP Exhibit 1, Schedule 3(a), Column (e), Line 1.

[4] Public Staff WSIP Exhibit 1, Schedule 3(a), Column (g), Line 1.

[5] Public Staff WSIP Exhibit 1, Schedule 3(b), Column (c), Line 1.

[6] Public Staff WSIP Exhibit 1, Schedule 3(b), Column (e), Line 1.

[7] Public Staff WSIP Exhibit 1, Schedule 3(b), Column (g), Line 1.

[8] Public Staff WSIP Exhibit 1, Sch 3(c), Column (c), Line 1.

[9] Public Staff WSIP Exhibit 1, Sch 3(c), Column (e), Line 1.

[10] Public Staff WSIP Exhibit 1, Sch 3(c), Column (g), Line 1.

[11] Public Staff WSIP Exhibit 1, Sch 3(d), Column (c), Line 1.

[12] Public Staff WSIP Exhibit 1, Sch 3(d), Column (e), Line 1.

[13] Public Staff WSIP Exhibit 1, Sch 3(d), Column (g), Line 1.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO SALARY AND WAGES GENERAL
For The Test Year Ended March 31, 2022

Public Staff WSIP Exhibit 1
Schedule 3-3

Line No.	Item	Base Year			
		CWSNC Water (a)	CWSNC Sewer (b)	BF/FH/TC Water (c)	BF/FH Sewer (d)
1	Salaries & Wages general per Company	<u>\$ 3,925,866</u> [1]	<u>\$2,342,194</u>	<u>\$471,682</u>	<u>\$482,814</u>
2	Adjustment to include company 09.19.2022 updates	24,065	14,358	2,891	2,960
3	Salaries & Wages general adjusted for company updates (L1 + L2)	3,949,931 [1]	2,356,552 [1]	474,573	485,774
4	Adjustments to update employee salaries through August 31, 2022	<u>(77,887)</u>	<u>(46,468)</u>	<u>(9,358)</u> [1]	<u>(9,579)</u> [1]
5	Salaries & Wages general per Public Staff (L3 + L4)	<u><u>\$ 3,872,044</u></u>	<u><u>\$ 2,310,084</u></u>	<u><u>\$ 465,216</u></u>	<u><u>\$ 476,195</u></u>

[1] Per examination of the company's financial records.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO SALARY AND WAGES GENERAL
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 3-3 (a)

CWSNC WATER OPERATIONS

Line No.	Item	<u>Rate Year 1</u>	<u>Rate Year 2</u>	<u>Rate Year 3</u>
		(a)	(b)	(c)
1	Salaries & Wages Calculation Basis per Company	<u>\$ 3,949,931 [1]</u>	<u>\$4,068,428 [1]</u>	<u>\$4,190,481 [1]</u>
2	Growth Factor per Company	3.00% [1]	3.00% [1]	3.00% [1]
3	Salaries & Wages per Company (L1* (1+3%))	<u>\$4,068,428 [1]</u>	<u>\$4,190,481 [1]</u>	<u>\$4,316,196 [1]</u>
4	Salaries & Wages Calculation Basis per Public Staff	3,872,044 [2]	3,988,205 [2]	4,107,851 [2]
5	Public Staff Growth Factor	3.00% [2]	3.00% [2]	3.00% [2]
6	Salaries & Wages per Public Staff (L4*(1+3%))	<u>3,988,205</u>	<u>4,107,851</u>	<u>4,231,087</u>
7	Adjustment to Salaries & Wages (L6 - L3)	<u>(80,223)</u>	<u>(82,630)</u>	<u>(85,109)</u>

[1] Per examination of the Company's response to accounting data requests.

[2] Per Public Staff calculation.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO SALARY AND WAGES GENERAL
Public Staff WSIP Exhibit 1, Schedule 3(a), Column (c), Line 1.

Public Staff WSIP Exhibit 1
Schedule 3-3 (b)

CWSNC SEWER OPERATIONS

Line No.	Item	<u>Rate Year 1</u>	<u>Rate Year 2</u>	<u>Rate Year 3</u>
		(a)	(b)	(c)
1	Salaries & Wages Calculation Basis per Company	<u>\$ 2,356,552 [1]</u>	<u>\$2,427,248 [1]</u>	<u>\$2,500,066 [1]</u>
2	Growth Factor per Company	3.00% [1]	3.00% [1]	3.00% [1]
3	Salaries & Wages per Company (L1* (1+3%))	<u>\$2,427,248 [1]</u>	<u>\$2,500,066 [1]</u>	<u>\$2,575,068 [1]</u>
4	Salaries & Wages Calculation Basis per Public Staff	2,310,084 [2]	2,379,387 [2]	2,450,768 [2]
5	Public Staff Growth Factor	3.00% [2]	3.00% [2]	3.00% [2]
6	Salaries & Wages per Public Staff (L4*(1+3%))	<u>2,379,387</u>	<u>2,450,768</u>	<u>2,524,291</u>
7	Adjustment to Salaries & Wages (L6 - L3)	<u>(47,862)</u>	<u>(49,297)</u>	<u>(50,776)</u>

[1] Per examination of the Company's response to accounting data requests.

[2] Per Public Staff calculation.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO SALARY AND WAGES GENERAL
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

aff WSIP Exhibit 1
Schedule 3-3 (c)

BF/FH/TC WATER OPERATIONS

Line No.	Item	<u>Rate Year 1</u>	<u>Rate Year 2</u>	<u>Rate Year 3</u>
		(a)	(b)	(c)
1	Salaries & Wages Calculation Basis per Company	<u>\$ 474,573 [1]</u>	<u>\$488,811 [1]</u>	<u>\$503,475 [1]</u>
2	Growth Factor per Company	3.00% [1]	3.00% [1]	3.00% [1]
3	Salaries & Wages per Company (L1* (1+3%))	<u>\$488,811 [1]</u>	<u>\$503,475 [1]</u>	<u>\$518,579 [1]</u>
4	Salaries & Wages Calculation Basis per Public Staff	465,216 [2]	479,172 [2]	493,547 [2]
5	Public Staff Growth Factor	<u>3.00% [2]</u>	<u>3.00% [2]</u>	<u>3.00% [2]</u>
6	Salaries & Wages per Public Staff (L4*(1+3%))	<u>479,172</u>	<u>493,547</u>	<u>508,354</u>
7	Adjustment to Salaries & Wages (L6 - L3)	<u>(9,639)</u>	<u>(9,928)</u>	<u>(10,226)</u>

[1] Per examination of the Company's response to accounting data requests.

[2] Per Public Staff calculation.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO SALARY AND WAGES GENERAL
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 3-3 (d)

BF/FH/TC SEWER OPERATIONS

Line No.	Item	<u>Rate Year 1</u>	<u>Rate Year 2</u>	<u>Rate Year 3</u>
		(a)	(b)	(c)
1	Salaries & Wages Calculation Basis per Company	<u>\$ 485,774 [1]</u>	<u>\$500,347 [1]</u>	<u>\$515,357 [1]</u>
2	Growth Factor per Company	3.00% [1]	3.00% [1]	3.00% [1]
3	Salaries & Wages per Company (L1* (1+3%))	<u>\$500,347 [1]</u>	<u>\$515,357 [1]</u>	<u>\$530,818 [1]</u>
4	Salaries & Wages Calculation Basis per Public Staff	476,195 [2]	490,481 [2]	505,195 [2]
5	Public Staff Growth Factor	3.00% [2]	3.00% [2]	3.00% [2]
6	Salaries & Wages per Public Staff (L4*(1+3%))	<u>490,481</u>	<u>505,195</u>	<u>520,351</u>
7	Adjustment to Salaries & Wages (L6 - L3)	<u>(9,866)</u>	<u>(10,162)</u>	<u>(10,467)</u>

[1] Per examination of the Company's response to accounting data requests.

[2] Per Public Staff calculation.

CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 400

ADJUSTMENT TO PURCHASE POWER

For The Test Year Ended March 31, 2022

Public Staff WSIP Exhibit 1

Schedule 3-4

Line No.	Item	Base Year							
		CWSNC Water		CWSNC Sewer		BF/FH/TC Water		BF/FH Sewer	
		(a)		(b)		(c)		(d)	
1	Purchase power per application	<u>\$1,073,063</u>	[1]	<u>\$838,500</u>	[1]	<u>\$70,432</u>	[1]	<u>\$149,604</u>	[1]
2	Adjustment to include company 09.19.2022 updates	(0)		0		(0)		(0)	
3	Purchase power after the Company's 09.19.22 updates (L1 + L2)	1,073,063	[1]	838,500	[1]	70,432	[1]	149,604	[1]
4	Adjustment to purchased power	<u>(2,205)</u>		<u>(22,345)</u>		<u>-</u>		<u>-</u>	
5	Purchase power per Public Staff (L3 + L4)	<u>\$ 1,070,858</u>	[2]	<u>\$ 816,155</u>	[2]	<u>\$ 70,432</u>	[2]	<u>\$ 149,604</u>	[2]

[1] Per examination of the Company's response to accounting data requests.

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CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO PURCHASE POWER
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 3-4(a)

CWSNC WATER OPERATIONS

Line No.	Item	Rate Year 1 (a)	Rate Year 2 (b)	Rate Year 3 (c)
1	Purchase Power Calculation Basis per Company	<u>\$1,073,063</u>	[1] <u>\$1,154,615</u>	[1] <u>\$1,193,207</u> [1]
2	Growth Factor per Company	7.60% [1]	3.34% [1]	3.34% [1]
3	Purchase Power per Company (L1*(1+ L2)	1,154,615 [1]	1,193,207 [1]	1,233,088 [1]
4	Purchase Power Calculation Basis per Public Staff	1,070,858 [2]	1,118,561 [2]	1,156,173 [2]
5	Public Staff Growth Factor	4.45% [2]	3.36% [2]	3.38% [2]
6	Purchase Power per Public (L4*(1+L5)	<u>1,118,561</u>	<u>1,156,173</u>	1,195,287
7	Adjustment to Purchase Power (L6 - L3)	<u>\$ (36,054)</u>	<u>\$ (37,034)</u>	<u>\$ (37,801)</u>

[1] Per examination of the Company's response to accounting data requests.
[2] Per Public Staff calculation.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO PURCHASE POWER
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 3-4(b)

CWSNC SEWER OPERATIONS

Line No.	Item	Rate Year 1 (a)	Rate Year 2 (b)	Rate Year 3 (c)
1	Purchase Power Calculation Basis per Company	<u>\$838,500</u>	[1] <u>\$902,226</u>	[1] <u>\$925,585</u>
2	Growth Factor per Company	7.60% [1]	2.59% [1]	2.59% [1]
3	Purchase Power per Company (L1*(1+ L2)	902,226 [1]	925,585 [1]	949,548 [1]
4	Purchase Power Calculation Basis per Public Staff	816,155 [2]	847,533 [2]	871,432 [2]
5	Public Staff Growth Factor	3.84% [2]	2.82% [2]	2.84% [2]
6	Purchase Power per Public (L4*(1+L5)	<u>847,533</u>	<u>871,432</u>	896,184
7	Adjustment to Purchase Power (L6 - L3)	<u>\$ (54,693)</u>	<u>\$ (54,153)</u>	<u>\$ (53,365)</u>

[1] Per examination of the Company's response to accounting data requests.

[2] Per Public Staff calculation.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO PURCHASE POWER
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 3-4(c)

BF/FH/TC WATER OPERATIONS

Line No.	Item	Rate Year 1	Rate Year 2	Rate Year 3
		(a)	(b)	(c)
1	Purchase Power Calculation Basis per Company	<u>\$70,432</u> [1]	<u>\$77,306</u> [1]	<u>\$79,830</u> [1]
2	Growth Factor per Company	9.76% [1]	3.26% [1]	3.26% [1]
3	Purchase Power per Company (L1*(1+ L2)	77,306 [1]	79,830 [1]	82,435 [1]
4	Purchase Power Calculation Basis per Public Staff	<u>70,432</u> [2]	<u>73,154</u> [2]	<u>75,224</u> [2]
5	Public Staff Growth Factor	3.87% [2]	2.83% [2]	2.85% [2]
6	Purchase Power per Public (L4*(1+L5)	<u>73,154</u>	<u>75,224</u>	<u>77,369</u>
7	Adjustment to Purchase Power (L6 - L3)	<u>\$ (4,152)</u>	<u>\$ (4,605)</u>	<u>\$ (5,066)</u>

[1] Per examination of the Company's response to accounting data requests.

[2] Per Public Staff calculation.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO PURCHASE POWER
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 3-4(d)

BF/FH/TC SEWER OPERATIONS

Line No.	Item	Rate Year 1		Rate Year 2		Rate Year 3	
		(a)		(b)		(c)	
1	Purchase Power Calculation Basis per Company	<u>\$149,604</u>	[1]	<u>\$164,710</u>	[1]	<u>\$171,123</u>	[1]
2	Growth Factor per Company	10.10%	[1]	3.89%	[1]	3.89%	[1]
3	Purchase Power per Company (L1*(1+ L2)	164,710	[1]	171,123	[1]	177,786	[1]
4	Purchase Power Calculation Basis per Public Staff	149,604	[2]	155,294	[2]	159,593	[2]
5	Public Staff Growth Factor	3.80%	[2]	2.77%	[2]	2.82%	[2]
6	Purchase Power per Public (L4*(1+L5)	<u>155,294</u>		<u>159,593</u>		<u>164,094</u>	
7	Adjustment to Purchase Power (L6 - L3)	<u>\$ (9,416)</u>		<u>\$ (11,530)</u>		<u>\$ (13,692)</u>	

[1] Per examination of the Company's response to accounting data requests.

[2] Per Public Staff calculation.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO MAINTENANCE AND REPAIR
For The Test Year Ended March 31, 2022

Public Staff WSIP Exhibit 1
Schedule 3-5

Line No.	Item	Base Year			
		CWSNC Water (a)	CWSNC Sewer (b)	BF/FH/TC Water (c)	BF/FH Sewer (d)
1	Maintenance and repair per application	<u>\$1,201,678</u> [1]	<u>\$1,662,107</u> [1]	<u>\$195,200</u> [1]	<u>\$236,104</u> [1]
2	Adjustment to include company 09.19.2022 updates	0 [1]	(0) [1]	0 [1]	(0) [1]
3	Maintenance and repair after adjusted for updated (L1 + L2)	1,201,678 [1]	1,662,107 [1]	195,200 [1]	236,104 [1]
4	Adjustment to deferred maintenance and repair per update	28,528 [1]	158,801 [1]	12,756 [1]	(8,938) [1]
5	Adjustment to sludge hauling - remove non-recurring expenses	(34,580) [2]	(60,837) [2]	0 [2]	(50,992) [2]
6	Total adjustment to maintenance and repair (L4+L5)	<u>(6,052)</u> [2]	<u>97,964</u> [2]	<u>12,756</u> [2]	<u>(59,930)</u> [2]
7	Maintenance and repair per Public Staff (L3 + L7)	<u>1,195,626</u>	<u>1,760,071</u>	<u>207,957</u>	<u>176,174</u>

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

[2] Per Public Staff calculation.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO MAINTENANCE AND REPAIR
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 3-5(1)

CWSNC WATER OPERATIONS

Line No.	Item	Rate Year 1	Rate Year 2	Rate Year 3
	-	(a)	(b)	(c)
1	Maintenance and repair Calculation Basis per Company	<u>\$1,201,678</u> [1]	<u>1,263,123</u> [1]	<u>1,288,802</u> [1]
2	Compound Growth Factor per Company	5.11% [1]	2.03% [1]	1.89% [1]
3	Maintenance and repair Per Company	1,263,123 [1]	1,288,802 [1]	1,313,104 [1]
4	Deferred Maintenance and repair per Public Staff	216,534 [2]	389,970 [2]	245,522 [2]
5	Sludge hauling per Public Staff	<u>4,753</u> [2]	<u>4,912</u> [2]	<u>5,079</u> [2]
6	M&R expense other than Sludge hauling & Fuel cost	973,680 [2]	997,048 [2]	1,020,977 [2]
7	Total Maintenance and repair expense per Public Staff (L4 through L6)	<u>1,194,967</u>	<u>1,391,930</u>	<u>1,271,578</u>
8	Adjustment to maintenance and repair	<u>(68,156.16)</u>	<u>103,127.72</u>	<u>(41,526.56)</u>

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

[2] Per Public Staff calculation.

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Dec 05 2022

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO MAINTENANCE AND REPAIR
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 3-5(2)

CWSNC SEWER OPERATIONS

Line No.	Item	Rate Year 1	Rate Year 2	Rate Year 3
	-	(a)	(b)	(c)
1	Maintenance and repair Calculation Basis per Company	<u>\$1,662,107</u> [1]	<u>1,802,879</u> [1]	<u>1,842,508</u> [1]
2	Compound Growth Factor per Company	8.47% [1]	2.20% [1]	-8.73% [1]
3	Maintenance and repair Per Company	1,802,879 [1]	1,842,508 [1]	1,681,719 [1]
4	Deferred Maintenance and repair per Public Staff	176,979 [2]	133,974 [2]	115,442 [2]
5	Sludge hauling per Public Staff	<u>418,804</u> [2]	<u>430,614</u> [2]	<u>442,845</u> [2]
6	M&R expense other than Sludge hauling & Fuel cost	966,766 [2]	989,969 [2]	1,013,728 [2]
7	Total Maintenance and repair expense per Public Staff (L4 through L6)	<u>1,562,549</u>	<u>1,554,557</u>	<u>1,572,015</u>
8	Adjustment to maintenance and repair	<u>(240,330.73)</u>	<u>(287,951.01)</u>	<u>(109,703.77)</u>

[1] Per examination of the Company's response to accounting data requests.

[2] Per Public Staff calculation.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO MAINTENANCE AND REPAIR
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 3-5(3)

BF/FH/TC WATER OPERATIONS

Line No.	Item	Rate Year 1	Rate Year 2	Rate Year 3
		(a)	(b)	(c)
	-			
1	Maintenance and repair Calculation Basis per Company	<u>\$195,200</u> [1]	<u>220,605</u> [1]	<u>222,939</u> [1]
2	Compound Growth Factor per Company	13.01% [1]	1.06% [1]	1.67% [1]
3	Maintenance and repair Per Company	220,605 [1]	222,939 [1]	226,670 [1]
4	Deferred Maintenance and repair per Public Staff	27,592 [2]	27,592 [2]	27,402 [2]
5	Sludge hauling per Public Staff	0 [2]	0 [2]	0 [2]
6	M&R expense other than Sludge hauling & Fuel cost	187,143 [2]	191,635 [2]	196,234 [2]
7	Total Maintenance and repair expense per Public Staff (L4 through L6)	<u>214,735</u>	<u>219,227</u>	<u>223,636</u>
8	Adjustment to maintenance and repair	<u>(5,870.19)</u>	<u>(3,712.27)</u>	<u>(3,034.54)</u>

[1] Per examination of the Company's response to accounting data requests.

[2] Per Public Staff calculation.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO MAINTENANCE AND REPAIR
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 3-5(4)

BF/FH/TC SEWER OPERATIONS

Line No.	Item	Rate Year 1	Rate Year 2	Rate Year 3
		(a)	(b)	(c)
	-			
1	Maintenance and repair Calculation Basis per Company	<u>\$236,104</u> [1]	<u>256,093</u> [1]	<u>265,267</u> [1]
2	Compound Growth Factor per Company	8.47% [1]	3.58% [1]	3.59% [1]
3	Maintenance and repair Per Company	256,093 [1]	265,267 [1]	274,798 [1]
4	Deferred Maintenance and repair per Public Staff	33,640 [2]	33,640 [2]	33,640 [2]
5	Sludge hauling per Public Staff	<u>41,194</u> [2]	<u>42,335</u> [2]	<u>43,529</u> [2]
6	M&R expense other than Sludge hauling & Fuel cost	127,521 [2]	130,582 [2]	133,716 [2]
7	Total Maintenance and repair expense per Public Staff (L4 through L6)	<u>202,355</u>	<u>206,557</u>	<u>210,885</u>
8	Adjustment to maintenance and repair	<u>(53,738.16)</u>	<u>(58,710.10)</u>	<u>(63,913.24)</u>

- [1] Per examination of the Company's response to accounting data requests.
[2] Per Public Staff calculation.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO DEFERRED MAINTENANCE AND REPAIR
For The Test Year Ended March 31, 2022

Public Staff WSIP Exhibit 1
Schedule 3-5(a)

Line No.	Item	Base Year			
		CWSNC Water (a)	CWSNC Sewer (b)	BF/FH/TC Water (c)	BF/FH Sewer (d)
1	Annual deferred maintenance and repair per Public Staff	249,413 [1]	421,795 [1]	26,967 [1]	13,161 [1]
2	Deferred maintenance and repair per Company	<u>220,885 [2]</u>	<u>262,993 [2]</u>	<u>14,211 [2]</u>	<u>22,098 [2]</u>
3	Adjustment to deferred maintenance and repair (L1 - L2)	<u>\$28,528</u>	<u>\$158,801</u>	<u>\$12,756</u>	<u>(\$8,938)</u>

[1] Annual depreciation expense of systems that have not been fully retired per reviewing the Company's records

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

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO DEFERRED MAINTENANCE AND REPAIR
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 3-5(a)(1)

CWSNC WATER OPERATIONS		<u>Rate Year 1</u>	<u>Rate Year 2</u>	<u>Rate Year 3</u>
<u>Line No.</u>	<u>Item</u>	<u>(a)</u>	<u>(b)</u>	<u>(c)</u>
1	Annual deferred maintenance and repair per Public Staff	216,534 [1]	389,970 [1]	245,522 [1]
2	Deferred maintenance and repair per Company	<u>186,184 [2]</u>	<u>175,867 [2]</u>	<u>162,971 [2]</u>
3	Adjustment to deferred maintenance and repair (L1 - L2)	<u><u>30,350</u></u>	<u><u>214,103</u></u>	<u><u>82,551</u></u>

[1] Annual depreciation expense of systems that have not been fully retired per reviewing the Company's records.

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

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO DEFERRED MAINTENANCE AND REPAIR
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 3-5(a)(2)

CWSNC SEWER OPERATIONS

<u>Line No.</u>	<u>Item</u>	<u>Rate Year 1</u>	<u>Rate Year 2</u>	<u>Rate Year 3</u>
		(a)	(b)	(c)
1	Annual deferred maintenance and repair per Public Staff	176,979 [1]	133,974 [1]	115,442 [1]
2	Deferred maintenance and repair per application	<u>272,237</u> [2]	<u>272,237</u> [2]	<u>70,794</u> [2]
3	Adjustment to deferred maintenance and repair (L1 - L2)	<u>(95,258)</u>	<u>(138,263)</u>	<u>44,648</u>

[1] Annual depreciation expense of systems that have not been fully retired per reviewing the Company's records.

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

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO DEFERRED MAINTENANCE AND REPAIR
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 3-5(a)(3)

BF/FH/TC WATER OPERATIONS

<u>Line No.</u>	<u>Item</u>	<u>Rate Year 1</u>	<u>Rate Year 2</u>	<u>Rate Year 3</u>
		(a)	(b)	(c)
1	Annual deferred maintenance and repair per Public Staff	27,592 [1]	27,592 [1]	27,402 [1]
2	Deferred maintenance and repair per application	<u>21,949</u> [2]	<u>17,799</u> [2]	<u>14,836</u> [2]
3	Adjustment to deferred maintenance and repair (L1 - L2)	<u><u>5,643</u></u>	<u><u>9,792</u></u>	<u><u>12,566</u></u>

[1] Annual depreciation expense of systems that have not been fully retired per reviewing the Company's records.

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

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO DEFERRED MAINTENANCE AND REPAIR
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 3-5(a)(4)

BF/FH/TC SEWER OPERATIONS

Line No.	Item	<u>Rate Year 1</u> (a)	<u>Rate Year 2</u> (b)	<u>Rate Year 3</u> (c)
1	Annual deferred maintenance and repair per Public Staff	33,640 [1]	33,640 [1]	33,640 [1]
2	Deferred maintenance and repair per application	<u>20,479 [2]</u>	<u>20,479 [2]</u>	<u>20,479 [2]</u>
3	Adjustment to deferred maintenance and repair (L1 - L2)	<u><u>13,161</u></u>	<u><u>13,161</u></u>	<u><u>13,161</u></u>

[1] Annual depreciation expense of systems that have not been fully retired per reviewing the Company's records.

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

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO MAINTENANCE TESTING
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024
-2026

Public Staff WSIP Exhibit 1
Schedule 3-6(a)

CWSNC WATER OPERATIONS

Line No.	Item	<u>Rate Year 1</u>	<u>Rate Year 2</u>	<u>Rate Year 3</u>
		(a)	(b)	(c)
1	Maintenance Testing Calculation Basis per Company	<u>\$195,388</u> [1]	<u>\$210,238</u> [1]	<u>\$217,264</u> [1]
2	Growth Factor per Company	7.60% [1]	3.34% [1]	3.34% [1]
3	Maintenance Testing per Company (L1* (1+L2))	210,238 [1]	217,264 [1]	224,526 [1]
4	Maintenance Testing Calculation Basis per Public Staff	<u>195,388</u> [2]	<u>202,031</u> [2]	<u>206,880</u> [2]
5	Public Staff Growth Factor	3.40% [2]	2.40% [2]	2.40% [2]
6	Maintenance Testing per Public Staff (L4*(1+L5))	<u>202,031</u>	<u>206,880</u>	<u>211,845</u>
7	Adjustment to Maintenance Testing (L6 - L3)	<u>(8,206)</u>	<u>(10,384)</u>	<u>(12,681)</u>

[1] Per examination of the Company's response to accounting data requests.

[2] Per Public Staff calculation.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO MAINTENANCE TESTING
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024
-2026

Public Staff WSIP Exhibit 1
Schedule 3-6(b)

CWSNC SEWER OPERATIONS

Line No.	Item	<u>Rate Year 1</u>	<u>Rate Year 2</u>	<u>Rate Year 3</u>
		(a)	(b)	(c)
1	Maintenance Testing Calculation Basis per Company	<u>\$305,558</u> [1]	<u>\$328,780</u> [1]	<u>\$337,292</u> [1]
2	Growth Factor per Company	7.60% [1]	2.59% [1]	2.59% [1]
3	Maintenance Testing per Company (L1* (1+L2))	328,780 [1]	337,292 [1]	346,025 [1]
4	Maintenance Testing Calculation Basis per Public Staff	<u>305,558</u> [2]	<u>315,947</u> [2]	<u>323,529</u> [2]
5	Public Staff Growth Factor	<u>3.40%</u> [2]	<u>2.40%</u> [2]	<u>2.40%</u> [2]
6	Maintenance Testing per Public Staff (L4*(1+L5))	<u>315,947</u>	<u>323,529</u>	<u>331,294</u>
7	Adjustment to Maintenance Testing (L6 - L3)	(12,833)	(13,763)	(14,731)

[1] Per examination of the Company's response to accounting data requests.

[2] Per Public Staff calculation.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO MAINTENANCE TESTING
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024
-2026

Public Staff WSIP Exhibit 1
Schedule 3-6(c)

BF/FH/TC WATER OPERATIONS

Line No.	Item	<u>Rate Year 1</u>	<u>Rate Year 2</u>	<u>Rate Year 3</u>
		(a)	(b)	(c)
1	Maintenance Testing Calculation Basis per Company	<u>\$10,196</u> [1]	<u>\$10,971</u> [1]	<u>\$11,329</u> [1]
2	Growth Factor per Company	7.60% [1]	3.26% [1]	3.26% [1]
3	Maintenance Testing per Company (L1* (1+L2))	10,971 [1]	11,329 [1]	11,699 [1]
4	Maintenance Testing Calculation Basis per Public Staff	<u>10,196</u> [2]	<u>10,543</u> [2]	<u>10,796</u> [2]
5	Public Staff Growth Factor	<u>3.40%</u> [2]	<u>2.40%</u> [2]	<u>2.40%</u> [2]
6	Maintenance Testing per Public Staff (L4*(1+L5))	<u>10,543</u>	<u>10,796</u>	<u>11,055</u>
7	Adjustment to Maintenance Testing (L6 - L3)	(428)	(533)	(644)

[1] Per examination of the Company's response to accounting data requests.

[2] Per Public Staff calculation.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO MAINTENANCE TESTING
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024
-2026

Public Staff WSIP Exhibit 1
Schedule 3-6(d)

BF/FH/TC SEWER OPERATIONS

Line No.	Item	<u>Rate Year 1</u>	<u>Rate Year 2</u>	<u>Rate Year 3</u>
		(a)	(b)	(c)
1	Maintenance Testing Calculation Basis per Company	<u>\$24,179</u> [1]	<u>\$26,016</u> [1]	<u>\$27,029</u> [1]
2	Growth Factor per Company	7.60% [1]	3.89% [1]	3.89% [1]
3	Maintenance Testing per Company (L1* (1+L2))	26,016 [1]	27,029 [1]	28,082 [1]
4	Maintenance Testing Calculation Basis per Public Staff	<u>24,179</u> [2]	<u>25,001</u> [2]	<u>25,601</u> [2]
5	Public Staff Growth Factor	<u>3.40%</u> [2]	<u>2.40%</u> [2]	<u>2.40%</u> [2]
6	Maintenance Testing per Public Staff (L4*(1+L5))	<u>25,001</u>	<u>25,601</u>	<u>26,215</u>
7	Adjustment to Maintenance Testing (L6 - L3)	(1,016)	(1,428)	(1,866)

[1] Per examination of the Company's response to accounting data requests.

[2] Per Public Staff calculation.

CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 400

ADJUSTMENT TO METER READING

For The Test Year Ended March 31, 2022

Public Staff WSIP Exhibit 1

Schedule 3-7

Line No.	Item	Base Year			
		CWSNC Water (a)	CWSNC Sewer (b)	BF/FH/TC Water (c)	BF/FH Sewer (d)
1	Meter reading per application	<u>\$229,336</u> [1]	<u>\$3,024</u> [1]	<u>\$47,602</u> [1]	<u>\$1,041</u> [1]
2	Adjustment to include company 09.19.2022 updates	0 [1]	0 [1]	(0) [1]	(0) [1]
3	Meter reading after adjusted for updated (L1 + L2)	229,336	3,024	47,602	1,041
4	Adjustment to remove ineligible meter reading expense	(6,724) [2]	- [2]	- [2]	- [2]
5	Total adjustment (L4)	<u>(6,724)</u>	<u>0</u>	<u>0</u>	<u>0</u>
6	Meter reading per Public Staff (L3 + L5)	<u>222,612</u>	<u>3,024</u>	<u>47,602</u>	<u>1,041</u>

[1] Per examination of the Company's response to accounting data requests.

[2] Per Public Staff calculation.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO METER READING
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exh bit 1
Schedule 3-7(a)

CWSNC WATER OPERATIONS

Line No.	Item	<u>Rate Year 1</u> (a)	<u>Rate Year 2</u> (b)	<u>Rate Year 3</u> (c)
1	Meter Reading Calculation Basis per Company	<u>\$229,336</u> [1]	<u>\$251,818</u> [1]	<u>\$260,235</u> [1]
2	Growth Factor per Company	9.80% [1]	3.34% [1]	3.34% [1]
3	Meter Reading per Company (L1* (1+L2))	251,818 [1]	260,235 [1]	268,933 [1]
4	Meter Reading Calculation Basis per Public Staff	<u>222,612</u> [2]	<u>230,181</u> [2]	<u>235,706</u> [2]
5	Public Staff Growth Factor	<u>3.40%</u> [2]	<u>2.40%</u> [2]	<u>2.40%</u> [2]
6	Meter Reading per Public Staff (L4*(1+L5))	<u>230,181</u>	<u>235,706</u>	<u>241,363</u>
7	Adjustment to Meter Reading (L6 - L3)	<u>(21,637)</u>	<u>(24,529)</u>	<u>(27,570)</u>

[1] Per examination of the Company's response to accounting data requests.
[2] Per Public Staff calculation.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO METER READING
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exh bit 1
Schedule 3-7(b)

CWSNC SEWER OPERATIONS

Line No.	Item	<u>Rate Year 1</u>	<u>Rate Year 2</u>	<u>Rate Year 3</u>
		(a)	(b)	(c)
1	Meter Reading Calculation Basis per Company	<u>\$3,024</u> [1]	<u>\$3,308</u> [1]	<u>\$3,394</u> [1]
2	Growth Factor per Company	9.40% [1]	2.59% [1]	2.59% [1]
3	Meter Reading per Company (L1* (1+L2))	3,308 [1]	3,394 [1]	3,482 [1]
4	Meter Reading Calculation Basis per Public Staff	<u>3,024</u> [2]	<u>3,127</u> [2]	<u>3,202</u> [2]
5	Public Staff Growth Factor	<u>3.40%</u> [2]	<u>2.40%</u> [2]	<u>2.40%</u> [2]
6	Meter Reading per Public Staff (L4*(1+L5))	<u>3,127</u>	<u>3,202</u>	<u>3,279</u>
7	Adjustment to Meter Reading (L6 - L3)	(\$181)	(\$192)	(\$203)

[1] Per examination of the Company's response to accounting data requests.

[2] Per Public Staff calculation.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO METER READING
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exh bit 1
Schedule 3-7(c)

BF/FH/TC WATER OPERATIONS

Line No.	Item	<u>Rate Year 1</u>	<u>Rate Year 2</u>	<u>Rate Year 3</u>
		(a)	(b)	(c)
1	Meter Reading Calculation Basis per Company	<u>\$47,602</u> [1]	<u>\$52,248</u> [1]	<u>\$53,954</u> [1]
2	Growth Factor per Company	9.76% [1]	3.26% [1]	3.26% [1]
3	Meter Reading per Company (L1* (1+L2))	52,248 [1]	53,954 [1]	55,715 [1]
4	Meter Reading Calculation Basis per Public Staff	<u>47,602</u> [2]	<u>49,220</u> [2]	<u>50,402</u> [2]
5	Public Staff Growth Factor	<u>3.40%</u> [2]	<u>2.40%</u> [2]	<u>2.40%</u> [2]
6	Meter Reading per Public Staff (L4*(1+L5))	<u>49,220</u>	<u>50,402</u>	<u>51,611</u>
7	Adjustment to Meter Reading (L6 - L3)	(\$3,028)	(\$3,552)	(\$4,103)

[1] Per examination of the Company's response to accounting data requests.

[2] Per Public Staff calculation.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO METER READING
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exh bit 1
Schedule 3-7(d)

BF/FH/TC SEWER OPERATIONS

Line No.	Item	<u>Rate Year 1</u>	<u>Rate Year 2</u>	<u>Rate Year 3</u>
		(a)	(b)	(c)
1	Meter Reading Calculation Basis per Company	<u>\$1,041</u> [1]	<u>\$1,146</u> [1]	<u>\$1,191</u> [1]
2	Growth Factor per Company	10.10% [1]	3.89% [1]	3.89% [1]
3	Meter Reading per Company (L1* (1+L2))	1,146 [1]	1,191 [1]	1,237 [1]
4	Meter Reading Calculation Basis per Public Staff	<u>1,041</u> [2]	<u>1,076</u> [2]	<u>1,102</u> [2]
5	Public Staff Growth Factor	<u>3.40%</u> [2]	<u>2.40%</u> [2]	<u>2.40%</u> [2]
6	Meter Reading per Public Staff (L4*(1+L5))	<u>1,076</u>	<u>1,102</u>	<u>1,129</u>
7	Adjustment to Meter Reading (L6 - L3)	(\$70)	(\$89)	(\$108)

[1] Per examination of the Company's response to accounting data requests.

[2] Per Public Staff calculation.

CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 400

ADJUSTMENT TO TRANSPORTATION

For The Test Year Ended March 31, 2022

Public Staff WSIP Exhibit 1

Schedule 3-8

Line No.	Item	Base Year			
		CWSNC Water (a)	CWSNC Sewer (b)	BF/FH/TC Water (c)	BF/FH Sewer (d)
1	Transportation per application	\$280,606 [1]	\$167,411 [1]	\$38,572 [1]	\$39,483 [1]
2	Adjustment to include company 10.08.2021 updates	0 [1]	0 [1]	0 [1]	(0) [1]
3	Transportation after adjusted for updated (L1 + L2)	280,606 [1]	167,411 [1]	38,572 [1]	39,483 [1]
4	Remove Company adjustment (-L2)	(0) [2]	(0) [2]	(0) [2]	0 [2]
5	Fuel expense adjustment	6,486 [2]	3,869 [2]	(2,405) [2]	(2,461) [2]
6	Total adjustments to transportation (L2 + L4 + L5)	6,486	3,869	(2,405)	(2,461)
7	Transportation per Public Staff (L1 + L4)	\$287,092	\$171,280	\$36,167	\$37,022

[1] Per examination of the Company's response to accounting data requests.

[2] Per Public Staff calculation.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO TRANSPORTATION
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 3-8(a)

CWSNC WATER OPERATIONS

Line No.	Item	<u>Rate Year 1</u>	<u>Rate Year 2</u>	<u>Rate Year 3</u>
		(a)	(b)	(c)
1	Transportation Calculation Basis per Company	<u>\$280,606</u> [1]	<u>\$308,114</u> [1]	<u>\$318,412</u> [1]
2	Growth Factor per Company	9.80% [1]	3.34% [1]	3.34% [1]
3	Transportation per Company (L1* (1+L2))	308,114 [1]	318,412 [1]	329,055 [1]
4	Transportation Calculation Basis per Public Staff	287,092 [2]	287,092 [2]	287,092 [2]
5	Public Staff Growth Factor	0.00% [2]	0.00% [2]	0.00% [2]
6	Transportation per Public Staff (L4*(1+L5))	<u>287,092</u>	<u>287,092</u>	<u>287,092</u>
7	Adjustment to Transportation (L6 - L3)	<u>(\$21,022)</u>	<u>(\$31,320)</u>	<u>(\$41,963)</u>

[1] Per examination of the Company's response to accounting data requests.
[2] Per Public Staff calculation.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO TRANSPORTATION
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 3-8(b)

CWSNC SEWER OPERATIONS

Line No.	<u>Item</u>	<u>Rate Year 1</u>	<u>Rate Year 2</u>	<u>Rate Year 3</u>
		(a)	(b)	(c)
1	Transportation Calcula ion Basis per Company	<u>\$167,411</u> [1]	<u>\$183,149</u> [1]	<u>\$187,891</u> [1]
2	Growth Factor per Company	9.40% [1]	2.59% [1]	2.59% [1]
3	Transportation per Company (L1* (1+L2))	183,149 [1]	187,891 [1]	192,756 [1]
4	Transportation Calcula ion Basis per Public Staff	171,280 [2]	171,280 [2]	171,280 [2]
5	Public Staff Growth Factor	0.00% [2]	0.00% [2]	0.00% [2]
6	Transportation per Public Staff (L4*(1+L5))	<u>\$171,280</u>	<u>\$171,280</u>	<u>\$171,280</u>
7	Adjustment to Transportation (L6 - L3)	<u>(\$11,869)</u>	<u>(\$16,611)</u>	<u>(\$21,476)</u>

[1] Per examination of the Company's response to accounting data requests.

[2] Per Public Staff calculation.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO TRANSPORTATION
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 3-8(c)

BF/FH/TC WATER OPERATIONS

Line No.	<u>Item</u>	<u>Rate Year 1</u>	<u>Rate Year 2</u>	<u>Rate Year 3</u>
		(a)	(b)	(c)
1	Transportation Calculation Basis per Company	<u>\$38,572</u> [1]	<u>\$42,337</u> [1]	<u>\$43,719</u> [1]
2	Growth Factor per Company	9.76% [1]	3.26% [1]	3.26% [1]
3	Transportation per Company (L1* (1+L2))	42,337 [1]	43,719 [1]	45,146 [1]
4	Transportation Calculation Basis per Public Staff	36,167 [2]	36,167 [2]	36,167 [2]
5	Public Staff Growth Factor	0.00% [2]	0.00% [2]	0.00% [2]
6	Transportation per Public Staff (L4*(1+L5))	<u>\$36,167</u>	<u>\$36,167</u>	<u>\$36,167</u>
7	Adjustment to Transportation (L6 - L3)	<u><u>(\$6,170)</u></u>	<u><u>(\$7,552)</u></u>	<u><u>(\$8,979)</u></u>

[1] Per examination of the Company's response to accounting data requests.

[2] Per Public Staff calculation.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO TRANSPORTATION
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 3-8(d)

BF/FH/TC SEWER OPERATIONS

Line No.	<u>Item</u>	<u>Rate Year 1</u>	<u>Rate Year 2</u>	<u>Rate Year 3</u>
		(a)	(b)	(c)
1	Transportation Calcula ion Basis per Company	<u>\$39,483</u> [1]	<u>\$43,469</u> [1]	<u>\$45,162</u> [1]
2	Growth Factor per Company	10.10% [1]	3.89% [1]	3.89% [1]
3	Transportation per Company (L1* (1+L2))	43,469 [1]	45,162 [1]	46,920 [1]
4	Transportation Calcula ion Basis per Public Staff	37,022 [2]	37,022 [2]	37,022 [2]
5	Public Staff Growth Factor	0.00% [2]	0.00% [2]	0.00% [2]
6	Transportation per Public Staff (L4*(1+L5))	<u>\$37,022</u>	<u>\$37,022</u>	<u>\$37,022</u>
7	Adjustment to Transportation (L6 - L3)	<u><u>(\$6,447)</u></u>	<u><u>(\$8,140)</u></u>	<u><u>(\$9,898)</u></u>

[1] Per examination of the Company's response to accounting data requests.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO CAPITALIZED TIME ADJUSTMENT
For The Test Year Ended March 31, 2022

Public Staff WSIP Exhibit 1
Schedule 3-9

Line No.	Item	Base Year			
		CWSNC Water (a)	CWSNC Sewer (b)	BF/FH/TC Water (c)	BF/FH Sewer (d)
1	Operating expenses charged to plant per application	<u>(\$450,858) [1]</u>	<u>(\$268,985) [1]</u>	<u>(\$65,538) [1]</u>	<u>(\$67,085) [1]</u>
2	Adjustment to include company 09.19.2022 updates	- [1]	- [1]	- [1]	- [1]
3	Operating expenses charged to plant after adjusted per updates (L1 + L2)	(450,858)	(268,985)	(65,538)	(67,085)
4	Adjust FP&A Captive to 1/5 to align with WSIP period	<u>(6,859) [2]</u>	<u>(4,092) [2]</u>	<u>(824) [2]</u>	<u>(844) [2]</u>
5	Total adjustments to capitalized time (L4)	<u>(6,859)</u>	<u>(4,092)</u>	<u>(824)</u>	<u>(844)</u>
6	Operating expenses charged to plant per Public Staff (L3 + L5)	<u>(\$457,717)</u>	<u>(\$273,077)</u>	<u>(\$66,362)</u>	<u>(\$67,929)</u>

[1] Per examination of the company's response to accounting data requests.

[2] Per Public Staff calculation.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO CAPITALIZED TIME ADJUSTMENT
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 3-9(a)

CWSNC WATER OPERATIONS

Line No.	<u>Item</u>	<u>Rate Year 1</u> (a)	<u>Rate Year 2</u> (b)	<u>Rate Year 3</u> (c)
1	Operating Expenses Charged to Plant Calculation Basis per Company	(\$450,858) [1]	(\$464,384) [1]	(\$478,315) [1]
2	Growth Factor per Company	3.00% [1]	3.00% [1]	3.00% [1]
3	Operating Expenses Charged to Plant per Company (L1* (1+L2))	(464,384) [1]	(478,315) [1]	(492,665) [1]
4	Operating Expenses Charged to Plant Calculation Basis per Public Staff	(457,717) [2]	(471,449) [2]	(485,592) [2]
5	Public Staff Growth Factor	3.00% [2]	3.00% [2]	3.00% [2]
6	Operating Expenses Charged to Plant per Public Staff (L4*(1+L5))	(471,449)	(485,592)	(500,160)
7	Adjustment to Operating Expenses Charged to Plant (L6 - L3)	(\$7,065)	(\$7,277)	(\$7,495)

[1] Per examination of the Company's response to accounting data requests.

[2] Per Public Staff calculation.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO CAPITALIZED TIME ADJUSTMENT
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 3-9(b)

CWSNC SEWER OPERATIONS

Line No.	<u>Item</u>	<u>Rate Year 1</u>	<u>Rate Year 2</u>	<u>Rate Year 3</u>
		(a)	(b)	(c)
1	Operating Expenses Charged to Plant Calculation Basis per Company	(\$268,985) [1]	(\$277,055) [1]	(\$285,366) [1]
2	Growth Factor per Company	3.00% [1]	3.00% [1]	3.00% [1]
3	Operating Expenses Charged to Plant per Company (L1* (1+L2))	(277,055) [1]	(285,366) [1]	(293,927) [1]
4	Operating Expenses Charged to Plant Calculation Basis per Public Staff	(273,077) [2]	(281,269) [2]	(289,707) [2]
5	Public Staff Growth Factor	3.00% [2]	3.00% [2]	3.00% [2]
6	Operating Expenses Charged to Plant per Public Staff (L4*(1+L5))	(\$281,269)	(\$289,707)	(\$298,399)
7	Adjustment to Operating Expenses Charged to Plant (L6 - L3)	(\$4,215)	(\$4,341)	(\$4,471)

[1] Per examination of the Company's response to accounting data requests.
[2] Per Public Staff calculation.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO CAPITALIZED TIME ADJUSTMENT
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 3-9(c)

BF/FH/TC WATER OPERATIONS

Line No.	<u>Item</u>	<u>Rate Year 1</u>	<u>Rate Year 2</u>	<u>Rate Year 3</u>
		(a)	(b)	(c)
1	Operating Expenses Charged to Plant Calculation Basis per Company	(\$65,538) [1]	(\$67,504) [1]	(\$69,529) [1]
2	Growth Factor per Company	3.00% [1]	3.00% [1]	3.00% [1]
3	Operating Expenses Charged to Plant per Company (L1* (1+L2))	(67,504) [1]	(69,529) [1]	(71,615) [1]
4	Operating Expenses Charged to Plant Calculation Basis per Public Staff	(66,362) [2]	(68,353) [2]	(70,403) [2]
5	Public Staff Growth Factor	3.00% [2]	3.00% [2]	3.00% [2]
6	Operating Expenses Charged to Plant per Public Staff (L4*(1+L5))	(\$68,353)	(\$70,403)	(\$72,516)
7	Adjustment to Operating Expenses Charged to Plant (L6 - L3)	(\$849)	(\$874)	(\$900)

[1] Per examination of the Company's response to accounting data requests.
[2] Per Public Staff calculation.

CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 400

ADJUSTMENT TO CAPITALIZED TIME ADJUSTMENT

For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1

Schedule 3-9(d)

BF/FH/TC SEWER OPERATIONS

Line No.	Item	<u>Rate Year 1</u>	<u>Rate Year 2</u>	<u>Rate Year 3</u>
		(a)	(b)	(c)
1	Operating Expenses Charged to Plant Calculation Basis per Company	<u>(\$67,085) [1]</u>	<u>(\$69,098) [1]</u>	<u>(\$71,170) [1]</u>
2	Growth Factor per Company	3.00% [1]	3.00% [1]	3.00% [1]
3	Operating Expenses Charged to Plant per Company (L1* (1+L2))	(69,098) [1]	(71,170) [1]	(73,306) [1]
4	Operating Expenses Charged to Plant Calculation Basis per Public Staff	(67,929) [2]	(69,967) [2]	(72,066) [2]
5	Public Staff Growth Factor	<u>3.00% [2]</u>	<u>3.00% [2]</u>	<u>3.00% [2]</u>
6	Operating Expenses Charged to Plant per Public Staff (L4*(1+L5))	<u>(69,967)</u>	<u>(72,066)</u>	<u>(74,228)</u>
7	Adjustment to Operating Expenses Charged to Plant (L6 - L3)	<u>(\$869)</u>	<u>(\$895)</u>	<u>(\$922)</u>

[1] Per examination of the Company's response to accounting data requests.

[2] Per Public Staff Calculation.

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CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO OUTSIDE SERVICE OTHER
For The Test Year Ended March 31, 2022

Public Staff WSIP Exhibit 1
Schedule 3-10

Line No.	Item	Base Year			
		CWSNC Water (a)	CWSNC Sewer (b)	BF/FH/TC Water (c)	BF/FH Sewer (d)
1	Outside service per application	<u>\$124,388</u> [1]	<u>\$74,211</u> [1]	<u>\$24,735</u> [1]	<u>\$25,319</u> [1]
2	Adjustments to include company updates 09.19.2022	0 [1]	(0) [1]	0 [1]	(0) [1]
3	Outside service after adjusted per updates (L1 + L2)	124,388	74,211	24,735	25,319
4	Acquisition of Echota Development Water System	(5,777) [2]	(3,447) [2]	[2]	[2]
5	Acquisition of the Seven Devils Resort WWTP	(5,453) [2]	(3,254) [2]	[2]	[2]
6	Total adjustments to outside service other (Sum of L2 thru L4)	<u>(11,230)</u>	<u>(6,701)</u>	<u>0</u>	<u>0</u>
7	Outside service other per Public Staff (L3 + L6)	<u>113,158</u>	<u>67,510</u>	<u>24,735</u>	<u>25,319</u>

[1] Per examination of the company's response to accounting data requests.

[2] Per Public Staff calculation.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO OUTSIDE SERVICE OTHER
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 3-10(a)

CWSNC WATER OPERATIONS

Line No.	Item	<u>Rate Year 1</u> (a)	<u>Rate Year 2</u> (b)	<u>Rate Year 3</u> (c)
1	Outside Services - Other Calculation Basis per Company	<u>\$124,388</u> [1]	<u>\$136,582</u> [1]	<u>\$141,147</u> [1]
2	Growth Factor per Company	9.80% [1]	3.34% [1]	3.34% [1]
3	Outside Services - Other per Company (L1* (1+L2))	136,582 [1]	141,147 [1]	145,864 [1]
4	Outside Services - Other Calculation Basis per Public Staff	113,158 [2]	117,005 [2]	119,813 [2]
5	Public Staff Growth Factor	3.40% [2]	2.40% [2]	2.40% [2]
6	Outside Services - Other per Public Staff (L4*(1+L5))	<u>117,005</u>	<u>119,813</u>	<u>122,689</u>
7	Adjustment to Outside Services - Other (L6 - L3)	<u>(19,576)</u>	<u>(21,333)</u>	<u>(23,175)</u>

[1] Per examination of the Company's response to accounting data requests.

[2] Per Public Staff calculation.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO OUTSIDE SERVICE OTHER
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 3-10(b)

CWSNC SEWER OPERATIONS

Line No.	Item	Rate Year 1 (a)	Rate Year 2 (b)	Rate Year 3 (c)
1	Outside Services - Other Calculation Basis per Company	<u>\$74,211</u> [1]	<u>\$81,187</u> [1]	<u>\$83,289</u> [1]
2	Growth Factor per Company	9.40% [1]	2.59% [1]	2.59% [1]
3	Outside Services - Other per Company (L1* (1+L2))	81,187 [1]	83,289 [1]	85,445 [1]
4	Outside Services - Other Calculation Basis per Public Staff	<u>67,510</u> [2]	<u>69,805</u> [2]	<u>71,480</u> [2]
5	Public Staff Growth Factor	3.40% [2]	2.40% [2]	2.40% [2]
6	Outside Services - Other per Public Staff (L4*(1+L5))	<u>69,805</u>	<u>71,480</u>	<u>73,196</u>
7	Adjustment to Outside Services - Other (L6 - L3)	<u>(11,382)</u>	<u>(11,808)</u>	<u>(12,249)</u>

[1] Per examination of the Company's response to accounting data requests.

[2] Per Public Staff calculation.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO OUTSIDE SERVICE OTHER
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 3-10(c)

BF/FH/TC WATER OPERATIONS

Line No.	Item	Rate Year 1 (a)	Rate Year 2 (b)	Rate Year 3 (c)
1	Outside Services - Other Calculation Basis per Company	<u>\$24,735</u> [1]	<u>\$27,149</u> [1]	<u>\$28,035</u> [1]
2	Growth Factor per Company	9.76% [1]	3.26% [1]	3.26% [1]
3	Outside Services - Other per Company (L1* (1+L2))	27,149 [1]	28,035 [1]	28,950 [1]
4	Outside Services - Other Calculation Basis per Public Staff	<u>24,735</u> [2]	<u>25,576</u> [2]	<u>26,190</u> [2]
5	Public Staff Growth Factor	3.40% [2]	2.40% [2]	2.40% [2]
6	Outside Services - Other per Public Staff (L4*(1+L5))	<u>25,576</u>	<u>26,190</u>	<u>26,818</u>
7	Adjustment to Outside Services - Other (L6 - L3)	<u>(1,573)</u>	<u>(1,846)</u>	<u>(2,132)</u>

[1] Per examination of the company's response to accounting data requests

[2] Per Public Staff Calculation

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO OUTSIDE SERVICE OTHER
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 3-10(d)

BF/FH/TC SEWER OPERATIONS

Line No.	Item	Rate Year 1 (a)	Rate Year 2 (b)	Rate Year 3 (c)
1	Outside Services - Other Calculation Basis per Company	<u>\$25,319</u> [1]	<u>\$27,875</u> [1]	<u>\$28,960</u> [1]
2	Growth Factor per Company	10.10% [1]	3.89% [1]	3.89% [1]
3	Outside Services - Other per Company (L1* (1+L2))	27,875 [1]	28,960 [1]	30,088 [1]
4	Outside Services - Other Calculation Basis per Public Staff	<u>25,319</u> [2]	<u>26,179</u> [2]	<u>26,808</u> [2]
5	Public Staff Growth Factor	3.40% [2]	2.40% [2]	2.40% [2]
6	Outside Services - Other per Public Staff (L4*(1+L5))	<u>26,179</u>	<u>26,808</u>	<u>27,451</u>
7	Adjustment to Outside Services - Other (L6 - L3)	<u>(1,696)</u>	<u>(2,153)</u>	<u>(2,637)</u>

[1] Per examination of the company's response to accounting data requests

[2] Per Public Staff Calculation

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO OFFICE SUPPLIES AND OTHER OFFICE EXPENSE
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 3-11(a)

CWSNC WATER OPERATIONS

Line No.	<u>Item</u>	<u>Rate Year 1</u>	<u>Rate Year 2</u>	<u>Rate Year 3</u>
		(a)	(b)	(c)
1	Office Supplies Calculation Basis per Company	<u>\$319,242</u> [1]	<u>\$344,606</u> [1]	<u>\$356,124</u> [1]
2	Growth Factor per Company	7.94% [1]	3.34% [1]	3.34% [1]
3	Office Supplies per Company (L1* (1+3%))	344,606 [1]	356,124 [1]	368,027 [1]
4	Office Supplies Calculation Basis per Public Staff	<u>319,242</u> [2]	<u>330,097</u> [2]	<u>338,019</u> [2]
5	Public Staff Growth Factor	<u>3.40%</u> [2]	<u>2.40%</u> [2]	<u>2.40%</u> [2]
6	Office Supplies per Public Staff (L4*(1+3%))	<u>330,097</u>	<u>338,019</u>	<u>346,131</u>
7	Adjustment to Office Supplies (L6 - L3)	<u>(\$14,509)</u>	<u>(\$18,105)</u>	<u>(\$21,895)</u>

[1] Per examination of the Company's response to accounting data requests.
[2] Per Public Staff calculation.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO OFFICE SUPPLIES AND OTHER OFFICE EXPENSE
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 3-11(b)

CWSNC SEWER OPERATIONS

Line No.	Item	<u>Rate Year 1</u>	<u>Rate Year 2</u>	<u>Rate Year 3</u>
		(a)	(b)	(c)
1	Office Supplies Calculation Basis per Company	<u>\$190,462</u> [1]	<u>\$205,474</u> [1]	<u>\$210,794</u> [1]
2	Growth Factor per Company	7.88% [1]	2.59% [1]	2.59% [1]
3	Office Supplies per Company (L1* (1+3%))	205,474 [1]	210,794 [1]	216,251 [1]
4	Office Supplies Calculation Basis per Public Staff	<u>190,462</u> [2]	<u>196,938</u> [2]	<u>201,664</u> [2]
5	Public Staff Growth Factor	<u>3.40%</u> [2]	<u>2.40%</u> [2]	<u>2.40%</u> [2]
6	Office Supplies per Public Staff (L4*(1+3%))	<u>196,938</u>	<u>201,664</u>	<u>206,504</u>
7	Adjustment to Office Supplies (L6 - L3)	<u>(8,536)</u>	<u>(9,130)</u>	<u>(9,747)</u>

[1] Per examination of the Company's response to accounting data requests.

[2] Per Public Staff calculation.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO OFFICE SUPPLIES AND OTHER OFFICE EXPENSE
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 3-11(c)

BF/FH/TC WATER OPERATIONS

Line No.	Item	<u>Rate Year 1</u>	<u>Rate Year 2</u>	<u>Rate Year 3</u>
		(a)	(b)	(c)
1	Office Supplies Calculation Basis per Company	<u>\$36,081</u> [1]	<u>\$38,881</u> [1]	<u>\$40,150</u> [1]
2	Growth Factor per Company	7.76% [1]	3.26% [1]	3.26% [1]
3	Office Supplies per Company (L1* (1+3%))	38,881 [1]	40,150 [1]	41,460 [1]
4	Office Supplies Calculation Basis per Public Staff	<u>36,081</u> [2]	<u>37,308</u> [2]	<u>38,203</u> [2]
5	Public Staff Growth Factor	3.40% [2]	2.40% [2]	2.40% [2]
6	Office Supplies per Public Staff (L4*(1+3%))	<u>37,308</u>	<u>38,203</u>	<u>39,120</u>
7	Adjustment to Office Supplies (L6 - L3)	<u>(1,573)</u>	<u>(1,947)</u>	<u>(2,340)</u>

[1] Per examination of the Company's response to accounting data requests.
[2] Per Public Staff calculation.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO OFFICE SUPPLIES AND OTHER OFFICE EXPENSE
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 3-11(d)

BF/FH/TC SEWER OPERATIONS

Line No.	<u>Item</u>	<u>Rate Year 1</u>	<u>Rate Year 2</u>	<u>Rate Year 3</u>
		(a)	(b)	(c)
1	Office Supplies Calculation Basis per Company	<u>\$36,933</u> [1]	<u>\$39,808</u> [1]	<u>\$41,358</u> [1]
2	Growth Factor per Company	7.78% [1]	3.89% [1]	3.89% [1]
3	Office Supplies per Company (L1* (1+3%))	39,808 [1]	41,358 [1]	42,968 [1]
4	Office Supplies Calculation Basis per Public Staff	<u>36,933</u> [2]	<u>38,188</u> [2]	<u>39,105</u> [2]
5	Public Staff Growth Factor	<u>3.40%</u> [2]	<u>2.40%</u> [2]	<u>2.40%</u> [2]
6	Office Supplies per Public Staff (L4*(1+3%))	<u>38,188</u>	<u>39,105</u>	<u>40,043</u>
7	Adjustment to Office Supplies (L6 - L3)	<u>(\$1,619)</u>	<u>(\$2,253)</u>	<u>(\$2,925)</u>

[1] Per examination of the Company's response to accounting data requests.
[2] Per Public Staff calculation.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
CALCULATION OF REGULATORY COMMISSION EXPENSE
For The Test Year Ended March 31, 2022

Public Staff WSIP Exhibit 1
Schedule 3-12

Line No.	Item	Amount Per Updates (a)	Public Staff Adjustment (b)	[1]	Amount Per Public Staff (c)	CWSNC Water (d)	Base Year		BF/FH/TC Water (f)	BF/FH Sewer (g)
							CWSNC Sewer (e)			
1	Rate case expenses for current proceeding	<u>\$750,000</u>	<u>(\$543,480)</u>		\$206,520 [2]					
2	Amortization period in years				5					
3	Annual rate case expense for current proceeding (L1 / L2)				41,304	\$22,451 [4]	\$13,394 [5]		\$2,698 [6]	\$2,761 [7]
4	Unamortized balance of current rate case expense (L1 - L3)				165,216	89,803 [4]	53,578 [5]		10,791 [6]	11,045 [7]
5	Sub 384 and prior rate cases unamortized rate case expense	<u>\$955,238</u>	<u>(\$0)</u>		955,238 [3]					
6	Amortization period in years				5					
7	Sub 384 and prior rate cases unamortized annual rate case expense (L5 / L6)				191,048	103,844 [4]	61,955 [5]		12,478 [6]	12,771 [7]
8	Unamortized balance of prior rate case expense (L5 - L7)				764,190	415,373 [4]	247,818 [5]		49,914 [6]	51,085 [7]
9	Total annual rate case expense (L3 + L7)				\$232,352	\$126,295	\$75,349		\$15,176	\$15,532
10	Miscellaneous regulatory matters per application				\$4,726 [2]	\$2,518 [2]	\$1,502 [2]		\$349 [2]	\$357 [2]
11	Total regulatory commission expense per Public Staff (L9 + L10)				<u>\$237,078</u>	<u>\$128,813</u>	<u>\$76,852</u>		<u>\$15,524</u>	<u>\$15,889</u>
12	Total unamortized balance of rate case expense (L4 + L8)				<u>\$929,406</u>	<u>\$505,176</u>	<u>\$301,396</u>		<u>\$60,705</u>	<u>\$62,130</u>

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

[2] Per examination of the Company's response to accounting data requests.

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

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

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

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

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
CALCULATION OF REGULATORY COMMISSION EXPENSE
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -
2026

Public Staff WSIP Exhibit 1
Schedule 3-12(a)

Line No.	Item	Amount Per Updates (a)	Public Staff Adjustment (b)	[1]	Amount Per Public Staff (c)	CWSNC Water (d)	Rate Year 1		BF/FH Sewer (g)
							CWSNC Sewer (e)	BF/FH/TC Water (f)	
1	Rate case expenses for current proceeding	<u>\$750,000</u>	<u>(\$543,480)</u>		\$206,520 [2]				
2	Amortization period in years				<u>5</u>				
3	Annual rate case expense for current proceeding (L1 / L2)				<u>41,304</u>	<u>\$22,451</u> [4]	<u>\$13,394</u> [5]	<u>\$2,698</u> [6]	<u>\$2,761</u> [7]
4	Unamortized balance of current rate case expense (L1 - L3)				<u>123,912</u>	<u>67,352</u> [4]	<u>40,183</u> [5]	<u>8,093</u> [6]	<u>8,283</u> [7]
5	Sub 384 and prior rate cases unamortized rate case expense	<u>\$955,238</u>	<u>(\$0)</u>		955,238 [3]				
6	Amortization period in years				<u>5</u>				
7	Sub 384 and prior rate cases unamortized annual rate case expense (L5 / L6)				<u>191,048</u>	<u>103,844</u> [4]	<u>61,955</u> [5]	<u>12,478</u> [6]	<u>12,771</u> [7]
8	Unamortized balance of prior rate case expense (L5 - L7)				<u>573,142</u>	<u>311,529</u> [4]	<u>185,863</u> [5]	<u>37,435</u> [6]	<u>38,314</u> [7]
9	Total annual rate case expense (L3 + L7)				\$232,352	\$126,295	\$75,349	\$15,176	\$15,532
10	Miscellaneous regulatory matters per application				<u>\$4,726</u> [2]	<u>\$2,518</u> [2]	<u>\$1,502</u> [2]	<u>\$349</u> [2]	<u>\$357</u> [2]
11	Total regulatory commission expense per Public Staff (L9 + L10)				<u>\$237,078</u>	<u>\$128,813</u>	<u>\$76,851</u>	<u>\$15,525</u>	<u>\$15,889</u>
12	Total unamor ized balance of rate case expense (L4 + L8)				<u>\$697,054</u>	<u>\$378,881</u>	<u>\$226,046</u>	<u>\$45,528</u>	<u>\$46,597</u>

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

[2] Per examination of the company's response to accounting data requests.

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

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

[5] Column (c) multiplied by CWSNC Uniform sewer allocation factor

[6] Column (c) multiplied by BF/FH water allocation factor

[7] Column (c) multiplied by BF/FH sewer allocation factor

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
CALCULATION OF REGULATORY COMMISSION EXPENSE
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -
2026

Public Staff WSIP Exhibit 1
Schedule 3-12(b)

Line No.	Item	Amount Per Updates (a)	Public Staff Adjustment (b)	[1]	Amount Per Public Staff (c)	Rate Year 2			
						CWSNC Water (d)	CWSNC Sewer (e)	BF/FH/TC Water (f)	BF/FH Sewer (g)
1	Rate case expenses for current proceeding	<u>\$750,000</u>	<u>(\$543,480)</u>		\$206,520 [2]				
2	Amortization period in years				<u>5</u>				
3	Annual rate case expense for current proceeding (L1 / L2)				<u>41,304</u>	\$22,451 [4]	\$13,394 [5]	\$2,698 [6]	\$2,761 [7]
4	Unamortized balance of current rate case expense (L1 - L3)				<u>82,608</u>	44,901 [4]	26,789 [5]	5,396 [6]	5,522 [7]
5	Sub 384 and prior rate cases unamortized rate case expense	<u>\$955,238</u>	<u>(\$0)</u>		955,238 [3]				
6	Amortization period in years				<u>5</u>				
7	Sub 384 and prior rate cases unamortized annual rate case expense (L5 / L6)				<u>191,048</u>	103,843 [4]	61,955 [5]	12,478 [6]	12,771 [7]
8	Unamortized balance of prior rate case expense (L5 - L7)				<u>382,094</u>	207,686 [4]	123,909 [5]	24,957 [6]	25,543 [7]
9	Total annual rate case expense (L3 + L7)				\$232,352	\$126,294 [4]	\$75,349 [5]	\$15,176 [6]	\$15,532
10	Miscellaneous regulatory matters per application				\$4,726 [2]	\$2,518 [2]	\$1,502 [2]	\$349 [2]	\$357 [2]
11	Total regulatory commission expense per Public Staff (L9 + L10)				<u>\$237,078</u>	<u>\$128,812</u>	<u>\$76,851</u>	<u>\$15,525</u>	<u>\$15,889</u>
12	Total unamor ized balance of rate case expense (L4 + L8)				<u>\$464,702</u>	<u>\$252,587</u>	<u>\$150,698</u>	<u>\$30,352</u>	<u>\$31,065</u>

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

[2] Per examination of the company's response to accounting data requests.

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

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

[5] Column (c) multiplied by CWSNC Uniform sewer allocation factor

[6] Column (c) multiplied by BF/FH water allocation factor

[7] Column (c) multiplied by BF/FH sewer allocation factor

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
CALCULATION OF REGULATORY COMMISSION EXPENSE
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -
2026

Public Staff WSIP Exhibit 1
Schedule 3-12(c)

Line No.	Item	Amount Per Updates (a)	Public Staff Adjustment (b)	[1]	Amount Per Public Staff (c)	CWSNC Water (d)	Rate Year 3			BF/FH Sewer (g)
							CWSNC Sewer (e)	BF/FH/TC Water (f)		
1	Rate case expenses for current proceeding	<u>\$750,000</u>	<u>(\$543,480)</u>		\$206,520 [2]					
2	Amortization period in years				<u>5</u>					
3	Annual rate case expense for current proceeding (L1 / L2)				<u>41,304</u>	<u>\$22,451</u> [4]	<u>\$13,394</u> [5]	<u>\$2,698</u> [6]		<u>\$2,761</u> [7]
4	Unamortized balance of current rate case expense (L1 - L3)				<u>41,304</u>	<u>22,451</u> [4]	<u>13,394</u> [5]	<u>2,698</u> [6]		<u>2,761</u> [7]
5	Sub 384 and prior rate cases unamortized rate case expense	<u>\$955,238</u>	<u>(\$0)</u>		955,238 [3]					
6	Amortization period in years				<u>5</u>					
7	Sub 384 and prior rate cases unamortized annual rate case expense (L5 / L6)				<u>191,048</u>	<u>103,843</u> [4]	<u>61,955</u> [5]	<u>12,478</u> [6]		<u>12,771</u> [7]
8	Unamortized balance of prior rate case expense (L5 - L7)				<u>191,047</u>	<u>103,843</u> [4]	<u>61,954</u> [5]	<u>12,478</u> [6]		<u>12,771</u> [7]
9	Total annual rate case expense (L3 + L7)				\$232,352	\$126,294 [4]	\$75,349 [5]	\$15,176 [6]		\$15,532
10	Miscellaneous regulatory matters per application				\$4,726 [2]	<u>\$2,518</u> [2]	<u>\$1,502</u> [2]	<u>\$349</u> [2]		<u>\$357</u> [2]
11	Total regulatory commission expense per Public Staff (L9 + L10)				<u>\$237,078</u>	<u>\$128,812</u>	<u>\$76,851</u>	<u>\$15,525</u>		<u>\$15,889</u>
12	Total unamor ized balance of rate case expense (L4 + L8)				<u>\$232,351</u>	<u>\$126,293</u>	<u>\$75,349</u>	<u>\$15,176</u>		<u>\$15,532</u>

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

[2] Per examination of the Company's response to accounting data requests.

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

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

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

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

[7] Column (c) multiplied by BF/FH sewer alloca ion factor.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO PENSION AND BENEFITS
For The Test Year Ended March 31, 2022

Public Staff WSIP Exhibit 1
Schedule 3-13

Line No.	Item	Base Year			
		CWSNC Water (a)	CWSNC Sewer (b)	BF/FH/TC Water (c)	BF/FH Sewer (d)
1	Pension and benefits per application	<u>\$856,975</u> [1]	<u>\$511,276</u> [1]	<u>\$109,030</u> [1]	<u>\$111,603</u> [1]
2	Adjustments to include company updates 9.19.2022	119,177	71,102	8,252	8,447
3	Pension and benefits expense after adjusted per updates (L1 + L2)	\$976,152	\$582,378	\$117,282	\$120,050
4	Adjustments to update employee benefits through August 31, 2022	(39,702) [1]	(23,686) [1]	(4,770) [1]	(4,883) [1]
5	Pension and benefits per Public Staff (L3 + L4)	<u><u>936,450</u></u>	<u><u>558,692</u></u>	<u><u>112,512</u></u>	<u><u>115,167</u></u>

[1] Calculated per the company's response to accounting data request.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO PENSION AND BENEFITS
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 3-13(a)

CWSNC WATER OPERATIONS

Line No.	Item	<u>Rate Year 1</u> (a)		<u>Rate Year 2</u> (b)		<u>Rate Year 3</u> (c)	
1	Pension & Other Benefits Calculation Basis per Company	<u>\$976,152</u>	[1]	<u>\$1,050,339</u>	[1]	<u>\$1,085,446</u>	[1]
2	Growth Factor per Company	7.60%	[1]	3.34%	[1]	3.34%	[1]
3	Pension & Other Benefits to Plant per Company (L1* (1+L2))	\$1,050,339	[1]	\$1,085,446	[1]	\$1,121,725	[1]
4	Pension & Other Benefits Calculation Basis per Public Staff	936,450	[2]	\$964,543	[2]	\$993,480	[2]
5	Public Staff Growth Factor	3.00%	[2]	3.00%	[2]	3.00%	[2]
6	Pension & Other Benefits per Public Staff (L4*(1+L5))	<u>964,543</u>		<u>993,480</u>		<u>1,023,284</u>	
7	Adjustment to Pension & Other Benefits (L6 - L3)	<u>(85,796)</u>		<u>(91,966)</u>		<u>(98,441)</u>	

[1] Per examination of the company's response to accounting data requests.

[2] Per Public Staff calculation.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO PENSION AND BENEFITS
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 3-13(b)

CWSNC SEWER OPERATIONS

Line No.	Item	<u>Rate Year 1</u> (a)	<u>Rate Year 2</u> (b)	<u>Rate Year 3</u> (c)
1	Pension & Other Benefits Calculation Basis per Company	<u>\$582,378</u>	<u>\$626,639</u>	<u>\$642,862</u>
2	Growth Factor per Company	7.60%	2.59%	2.59%
3	Pension & Other Benefits to Plant per Company (L1* (1+L2))	626,639	642,862	659,506
4	Pension & Other Benefits Calculation Basis per Public Staff	558,692	575,453	592,716
5	Public Staff Growth Factor	3.00%	3.00%	3.00%
6	Pension & Other Benefits per Public Staff (L4*(1+L5))	<u>575,453</u>	<u>592,716</u>	<u>610,498</u>
7	Adjustment to Pension & Other Benefits (L6 - L3)	<u>(51,186)</u>	<u>(50,146)</u>	<u>(49,008)</u>

[1] Per examination of the company's response to accounting data requests.

[2] Per Public Staff calculation.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO PENSION AND BENEFITS
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 3-13(c)

BF/FH/TC WATER OPERATIONS

Line No.	Item	<u>Rate Year 1</u> (a)	<u>Rate Year 2</u> (b)	<u>Rate Year 3</u> (c)
1	Pension & Other Benefits Calculation Basis per Company	<u>\$117,282</u> [1]	<u>\$126,195</u> [1]	<u>\$130,314</u> [1]
2	Growth Factor per Company	7.60% [1]	3.26% [1]	3.26% [1]
3	Pension & Other Benefits to Plant per Company (L1* (1+L2))	126,195 [1]	130,314 [1]	134,567 [1]
4	Pension & Other Benefits Calculation Basis per Public Staff	112,512 [2]	115,887 [2]	119,364 [2]
5	Public Staff Growth Factor	3.00% [2]	3.00% [2]	3.00% [2]
6	Pension & Other Benefits per Public Staff (L4*(1+L5))	<u>115,887</u>	<u>119,364</u>	<u>122,945</u>
7	Adjustment to Pension & Other Benefits (L6 - L3)	<u>(10,308)</u>	<u>(10,950)</u>	<u>(11,622)</u>

[1] Per examination of the company's response to accounting data requests.

[2] Per Public Staff calculation.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO PENSION AND BENEFITS
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 3-13(d)

BF/FH/TC SEWER OPERATIONS

Line No.	Item	<u>Rate Year 1</u> (a)	<u>Rate Year 2</u> (b)	<u>Rate Year 3</u> (c)
1	Pension & Other Benefits Calculation Basis per Company	<u>\$120,050</u> [1]	<u>\$129,174</u> [1]	<u>\$134,203</u> [1]
2	Growth Factor per Company	7.60% [1]	3.89% [1]	3.89% [1]
3	Pension & Other Benefits to Plant per Company (L1* (1+L2))	\$129,174 [1]	\$134,203 [1]	\$139,429 [1]
4	Pension & Other Benefits Calculation Basis per Public Staff	115,167 [2]	118,622 [2]	122,181 [2]
5	Public Staff Growth Factor	3.00% [2]	3.00% [2]	3.00% [2]
6	Pension & Other Benefits per Public Staff (L4*(1+L5))	<u>\$118,622</u>	<u>\$122,181</u>	<u>\$125,846</u>
7	Adjustment to Pension & Other Benefits (L6 - L3)	<u>(10,552)</u>	<u>(12,023)</u>	<u>(13,583)</u>

[1] Per examination of the company's response to accounting data requests.

[2] Per Public Staff calculation.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO RENT
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -
2026

Public Staff WSIP Exhibit 1
Schedule 3-14(a)

CWSNC WATER OPERATIONS

Line No.	Item	<u>Rate Year 1</u> (a)	<u>Rate Year 2</u> (b)	<u>Rate Year 3</u> (c)
1	Rent Calculation Basis per Company	<u>\$211,794</u> [1]	<u>\$227,890</u> [1]	<u>\$233,360</u> [1]
2	Growth Factor per Company	7.60% [1]	2.40% [1]	2.40% [1]
3	Rent per Company (L1* (1+L2))	<u>227,890</u> [1]	<u>233,360</u> [1]	<u>238,960</u> [1]
4	Rent Calculation Basis per Public Staff	<u>211,794</u> [2]	<u>218,995</u> [2]	<u>224,251</u> [2]
5	Public Staff Growth Factor	<u>3.40%</u> [2]	<u>2.40%</u> [2]	<u>2.40%</u> [2]
6	Rent per Public Staff (L4*(1+L5))	<u>218,995</u>	<u>224,251</u> [1]	<u>229,633</u>
7	Adjustment to Rent (L6 - L3)	<u>(\$8,895)</u>	<u>(\$9,109)</u>	<u>(\$9,327)</u>

[1] Per examination of the company's response to accounting data requests.

[2] Per Public Staff calculation.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO RENT
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 3-14(b)

CWSNC SEWER OPERATIONS

Line No.	Item	Rate Year 1 (a)	Rate Year 2 (b)	Rate Year 3 (c)
1	Rent Calculation Basis per Company	<u>\$126,358</u> [1]	<u>\$135,961</u> [1]	<u>\$139,224</u> [1]
2	Growth Factor per Company	7.60% [1]	2.40% [1]	2.40% [1]
3	Rent per Company (L1* (1+L2))	<u>135,961</u> [1]	<u>139,224</u> [1]	<u>142,566</u> [1]
4	Rent Calculation Basis per Public Staff	<u>126,358</u> [2]	<u>130,654</u> [2]	<u>133,790</u> [2]
5	Public Staff Growth Factor	<u>3.40%</u> [2]	<u>2.40%</u> [2]	<u>2.40%</u> [2]
6	Rent per Public Staff (L4*(1+L5))	<u>130,654</u>	<u>133,790</u>	<u>137,001</u>
7	Adjustment to Rent (L6 - L3)	<u>(\$5,307)</u>	<u>(\$5,434)</u>	<u>(\$5,565)</u>

[1] Per examination of the company's response to accounting data requests.

[2] Per Public Staff calculation.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO RENT
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 3-14(c)

BF/FH/TC WATER OPERATIONS

Line No.	<u>Item</u>	<u>Rate Year 1</u> (a)	<u>Rate Year 2</u> (b)	<u>Rate Year 3</u> (c)
1	Rent Calculation Basis per Company	<u>\$25,446</u> [1]	<u>\$27,380</u> [1]	<u>\$28,274</u> [1]
2	Growth Factor per Company	7.60% [1]	3.26% [1]	3.26% [1]
3	Rent per Company (L1* (1+L2))	27,380 [1]	28,274 [1]	29,196 [1]
4	Rent Calculation Basis per Public Staff	<u>25,446</u> [2]	<u>26,311</u> [2]	<u>26,943</u> [2]
5	Public Staff Growth Factor	<u>3.40%</u> [2]	<u>2.40%</u> [2]	<u>2.40%</u> [2]
6	Rent per Public Staff (L4*(1+L5))	<u>26,311</u>	<u>26,943</u>	<u>27,589</u>
7	Adjustment to Rent (L6 - L3)	<u>(\$1,069)</u>	<u>(\$1,331)</u>	<u>(\$1,607)</u>

[1] Per examination of the company's response to accounting data requests.

[2] Per Public Staff calculation.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO RENT
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 3-14(d)

BF/FH/TC SEWER OPERATIONS

Line No.	Item	<u>Rate Year 1</u> (a)	<u>Rate Year 2</u> (b)	<u>Rate Year 3</u> (c)
1	Rent Calculation Basis per Company	<u>\$26,047</u> [1]	<u>\$28,027</u> [1]	<u>\$29,118</u> [1]
2	Growth Factor per Company	7.60% [1]	3.89% [1]	3.89% [1]
3	Rent per Company (L1* (1+L2))	28,027 [1]	29,118 [1]	30,252 [1]
4	Rent Calculation Basis per Public Staff	<u>26,047</u> [2]	<u>26,933</u> [2]	<u>27,579</u> [2]
5	Public Staff Growth Factor	<u>3.40%</u> [2]	<u>2.40%</u> [2]	<u>2.40%</u> [2]
6	Rent per Public Staff (L4*(1+L5))	<u>26,933</u>	<u>27,579</u>	<u>28,241</u>
7	Adjustment to Rent (L6 - L3)	<u>(\$1,094)</u>	<u>(\$1,539)</u>	<u>(\$2,011)</u>

[1] Per examination of the company's response to accounting data requests.

[2] Per Public Staff calculation.

CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 400

ALLOCATION OF INSURANCE

For The Test Year Ended March 31, 2022

Public Staff WSIP Exhibit 1

Schedule 3-15

No.	Item	CWSNC Water (a)	CWSNC Sewer (b)	Base Year BF/FH/TC Water (c)	BF/FH Sewer (d)	Total (f) [3]
1	Auto	\$70,463 [1]	\$42,039 [1]	\$8,466 [1]	\$8,666 [1]	\$129,634
2	Workers compensation	37,704 [1]	22,495 [1]	4,530 [1]	4,637 [1]	69,366
3	Property insurance	280,602 [1]	167,409 [1]	33,714 [1]	34,509 [1]	516,234
4	General Liability and Umbrella insurance	182,427 [1]	108,837 [1]	21,918 [1]	22,435 [1]	335,617
5	Excess Liability	30,068 [1]	17,939 [1]	3,613 [1]	3,698 [1]	55,318
6	Insurance deductibles	63,314 [1]	37,773 [1]	7,607 [1]	7,787 [1]	116,481
7	Cyber security insurance	13,016 [1]	7,765 [1]	1,564 [1]	1,601 [1]	23,946
8	Pollution liability	23,325 [1]	13,916 [1]	2,802 [1]	2,869 [1]	42,911
9	Broker fee	51,188 [1]	30,539 [1]	6,150 [1]	6,295 [1]	94,172
10	Total insurance per Public Staff (Sum of L1 thru L9)	752,107	448,712	90,364	92,497	1,383,679
11	Less: Company updates on 9.19.2022	51,380 [2]	30,654 [2]	6,174 [2]	6,319 [2]	94,527
12	Less: Amount per Company in original filing	663,022 [2]	395,563 [2]	79,660 [2]	81,540 [2]	1,219,785
13	Total adjustment to insurance expense (L10 - L11 - L12)	\$37,705	\$22,495	\$4,530	\$4,638	\$69,368

[1] Column (f) times customer ratios for each rate division.

[2] Based on information provided by the Company.

[3] Feasel Exhibit I, Schedule 3-14(a), Column (c).

CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 400

ALLOCATION OF INSURANCE

For The Rate Year 1 - Rate Year 3 Ended March 31,
2024 -2026

Public Staff WSIP Exhibit 1
Schedule 3-15(a)

No.	Item	CWSNC		Rate Year 1		BF/FH		Total [3]
		Water	Sewer	BF/FH/TC	Water	Sewer		
		(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	Auto	\$72,859 [1]	\$43,468 [1]	\$8,754 [1]	\$8,960 [1]			\$134,042
2	Workers compensation	38,986 [1]	23,260 [1]	4,684 [1]	4,795 [1]			71,725
3	Property insurance	290,143 [1]	173,101 [1]	34,860 [1]	35,683 [1]			533,786
4	General Liability and Umbrella insurance	188,629 [1]	112,537 [1]	22,663 [1]	23,198 [1]			347,028
5	Excess Liability	31,090 [1]	18,549 [1]	3,735 [1]	3,824 [1]			57,198
6	Insurance deductibles	65,461 [1]	39,054 [1]	7,865 [1]	8,051 [1]			120,431
7	Cyber security insurance	13,458 [1]	8,029 [1]	1,617 [1]	1,655 [1]			24,760
8	Pollution liability	23,325 [1]	13,916 [1]	2,802 [1]	2,869 [1]			42,911
9	Broker fee	52,928 [1]	31,577 [1]	6,359 [1]	6,509 [1]			97,374
10	Total insurance per Public Staff (Sum of L1 thru L9)	776,879	463,491	93,339	95,544			1,429,254
11	Less: Amount per Company RY1	767,442 [2]	457,711 [2]	100,326 [2]	94,596 [2]			1,420,075
12	Total adjustment to insurance expense (L10 - L11)	\$9,437	\$5,780	(\$6,987)	\$948			\$9,178

[1] Column (f) times customer ratios for each rate division.

[2] Based on information provided by the Company.

[3] Sun Exhibit I, Schedule 3-14(d), Column (c).

CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 400

ALLOCATION OF INSURANCE

For The Rate Year 1 - 3 Ended March 31, 2024 to 2026

Public Staff WSIP Exhibit 1

Schedule 3-15(b)

No.	Item	CWSNC		CWSNC		<u>Rate Year 2</u>		BF/FH		Total [3]
		Water		Sewer		BF/FH/TC		Water	Sewer	
		(a)		(b)		(c)		(d)		(f)
1	Auto	\$74,608	[1]	\$44,512	[1]	\$8,964	[1]	\$9,176	[1]	\$137,259
2	Workers compensation	\$39,922	[1]	\$23,818	[1]	\$4,797	[1]	\$4,910	[1]	\$73,446
3	Property insurance	\$297,106	[1]	\$177,255	[1]	\$35,696	[1]	\$36,539	[1]	\$546,596
4	General Liability and Umbrella insurance	\$193,156	[1]	\$115,238	[1]	\$23,207	[1]	\$23,755	[1]	\$355,356
5	Excess Liability	\$31,837	[1]	\$18,994	[1]	\$3,825	[1]	\$3,915	[1]	\$58,571
6	Insurance deductibles	\$67,032	[1]	\$39,992	[1]	\$8,054	[1]	\$8,244	[1]	\$123,322
7	Cyber security insurance	\$13,781	[1]	\$8,222	[1]	\$1,656	[1]	\$1,695	[1]	\$25,354
8	Pollution liability	\$23,884	[1]	\$14,250	[1]	\$2,870	[1]	\$2,937	[1]	\$43,941
9	Broker fee	\$54,199	[1]	\$32,335	[1]	\$6,512	[1]	\$6,665	[1]	\$99,711
10	Total insurance per Public Staff (Sum of L1 thru L9)	795,525		474,616		95,581		97,836		1,463,556
11	Less: Amount per Company RY2	805,357	[2]	487,864	[2]	109,838	[2]	107,635	[2]	1,510,695
12	Total adjustment to insurance expense (L10 - L11)	(\$9,832)		(\$13,248)		(\$14,257)		(\$9,799)		(\$47,137)

[1] Column (f) times customer ratios for each rate division.

[2] Based on information provided by the Company.

[3] Sun Exhibit I, Schedule 3-14(d), Column (c).

CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 400

ALLOCATION OF INSURANCE

For The Rate Year 1 - 3 Ended March 31, 2024 to 2026

Public Staff WSIP Exhibit 1

Schedule 3-15(c)

No.	Item	CWSNC		CWSNC		Rate Year 3 BF/FH/TC		BF/FH		Total [3]
		Water	(a)	Sewer	(b)	Water	(c)	Sewer	(d)	
1	Auto	\$76,398	[1]	\$45,580	[1]	\$9,179	[1]	\$9,396	[1]	\$140,553
2	Workers compensation	40,880	[1]	24,389	[1]	4,912	[1]	5,028	[1]	\$75,209
3	Property insurance	304,237	[1]	181,509	[1]	36,553	[1]	37,416	[1]	\$559,715
4	General Liability and Umbrella insurance	197,792	[1]	118,004	[1]	23,764	[1]	24,325	[1]	\$363,885
5	Excess Liability	32,601	[1]	19,450	[1]	3,917	[1]	4,009	[1]	\$59,977
6	Insurance deductibles	68,641	[1]	40,952	[1]	8,247	[1]	8,442	[1]	\$126,282
7	Cyber security insurance	14,112	[1]	8,420	[1]	1,696	[1]	1,736	[1]	\$25,963
8	Pollution liability	24,457	[1]	14,591	[1]	2,938	[1]	3,008	[1]	\$44,995
9	Broker fee	55,499	[1]	33,111	[1]	6,668	[1]	6,825	[1]	\$102,104
10	Total insurance per Public Staff (Sum of L1 thru L9)	814,617		486,006		97,874		100,185		1,498,683
11	Less: Amount per Company RY3	842,056	[2]	517,228	[2]	116,690	[2]	117,589	[2]	1,593,563
12	Total adjustment to insurance expense (L10 - L11)	(\$27,439)		(\$31,222)		(\$18,816)		(\$17,404)		(\$94,881)

[1] Column (f) times customer ratios for each rate division.

[2] Based on information provided by the Company.

[3] Sun Exhibit I, Schedule 3-14(d), Column (c).

CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 384

CALCULATION OF INSURANCE

For The Test Year Ended March 31, 2022

Public Staff WSIP Exhibit 1

Schedule 3-15 (a)

Line No.	Item	Base Year		CWSNC Insurance Expense [6]
		Annual Premium [1] (a)	CWSNC Percentage (b)	
1	Auto	\$675,395	19.19% [2]	\$129,634
2	Workers compensation	603,626	11.49% [3]	69,366
3	Property insurance	2,556,325	20.19% [4]	516,234
4	General Liability and Umbrella insurance	1,742,013	19.27% [5]	335,617
5	Excess Liability	287,125	19.27% [5]	55,318
6	Insurance deductibles	618,542	18.83% [5]	116,481
7	Cyber security insurance	124,290	19.27% [5]	23,946
8	Pollution liability	212,490	20.19% [4]	42,911
9	Broker fee	488,797	19.27% [5]	94,172
10	Total insurance per Public Staff (Sum of L1 thru L9)			\$1,383,679

[1] Based on current insurance policies and information provided by Company.

[2] Percentage of CWSNC automobiles covered under current policy.

[3] Percentage of CWSNC workers compensation insurance based on CSWNC payroll.

[4] Percentage of CWSNC property insurance based on CSWNC value of property covered.

[5] Percentage of CWSNC insurance based on revenue.

[6] Column (a) X Column (b).

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Dec 05 2022

CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 384

CALCULATION OF INSURANCE

For The Rate Year 1 - Rate Year 3

Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1

Schedule 3-15 (d)

Line No.	Item	Rate Year 1			CWSNC Insurance Expense [6]	Rate Year 2			CWSNC Insurance Expense [6]	Rate Year 3			CWSNC Insurance Expense
		Annual Premium [1]	CWSNC Percentage [2]			Annual Premium [1]	CWSNC Percentage [2]			Annual Premium [1]	CWSNC Percentage [2]		
		(a)	(b)		(c)	(a)	(b)		(c)	(a)	(b)		(c)
1	Auto	\$698,358	19.19% [2]		\$134,042	\$715,119	19.19% [2]		\$137,259	\$732,282	19.19% [2]		\$140,553
2	Workers compensation	\$624,149	11.49% [3]		71,725	\$639,129	11.49% [3]		\$73,446	\$654,468	11.49% [3]		\$75,209
3	Property insurance	\$2,643,240	20.19% [4]		533,786	\$2,706,678	20.19% [4]		\$546,596	\$2,771,638	20.19% [4]		\$559,715
4	General Liability and Umbrella insurance	\$1,801,241	19.27% [5]		347,028	\$1,844,471	19.27% [5]		\$355,356	\$1,888,739	19.27% [5]		\$363,885
5	Excess Liability	\$296,887	19.27% [5]		57,198	\$304,013	19.27% [5]		\$58,571	\$311,309	19.27% [5]		\$59,977
6	Insurance deductibles	\$639,572	18.83% [5]		120,431	\$654,922	18.83% [5]		\$123,322	\$670,640	18.83% [5]		\$126,282
7	Cyber security insurance	\$128,516	19.27% [5]		24,760	\$131,600	19.27% [5]		\$25,354	\$134,759	19.27% [5]		\$25,963
8	Pollution liability	\$212,490	20.19% [4]		42,911	\$217,589	20.19% [4]		\$43,941	\$222,811	20.19% [4]		\$44,995
9	Broker fee	505,416	19.27% [5]		97,374	\$517,546	19.27% [5]		\$99,711	\$529,967	19.27% [5]		\$102,104
10	Total insurance per Public Staff (Sum of L1 thru L9)				\$1,429,254				\$1,463,556				\$1,498,683

[1] Based on current insurance policies and information provided by Company.

[2] Percentage of CWSNC automobiles covered under current policy.

[3] Percentage of CWSNC workers compensation insurance based on CSWNC payroll.

[4] Percentage of CWSNC property insurance based on CSWNC value of property covered.

[5] Percentage of CWSNC insurance based on revenue.

[6] Column (a) X Column (b).

CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 400

ADJUSTMENT TO OFFICE UTILITY

Public Staff WSIP Exhibit 1

Schedule 3-16(a)

For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

CWSNC WATER OPERATIONS

Line No.	Item	<u>Rate Year 1</u>	<u>Rate Year 2</u>	<u>Rate Year 3</u>
		(a)	(b)	(c)
1	Office Utility to Plant Calculation Basis per Company	<u>\$180,673</u> [1]	<u>\$198,385</u> [1]	<u>\$205,015</u> [1]
2	Growth Factor per Company	9.80% [1]	3.34% [1]	3.34% [1]
3	Office Utility per Company (L1* (1+L2))	\$198,385 [1]	\$205,015 [1]	\$211,868 [1]
4	Office Utility Calculation Basis per Public Staff	\$180,673 [2]	\$186,816 [2]	\$191,299 [2]
5	Public Staff Growth Factor	<u>3.40%</u> [2]	<u>2.40%</u> [2]	<u>2.40%</u> [2]
6	Office Utility per Public Staff (L4*(1+L5))	<u>186,816</u>	<u>191,299</u>	<u>195,891</u>
7	Adjustment to Office Utility (L6 - L3)	<u>(\$11,569)</u>	<u>(\$13,716)</u>	<u>(\$15,977)</u>

[1] Per examination of the company's response to accounting data requests

[2] Per Public Staff Calculation

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO OFFICE UTILITY
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 3-16(b)

CWSNC SEWER OPERATIONS

Line No.	Item	<u>Rate Year 1</u> (a)	<u>Rate Year 2</u> (b)	<u>Rate Year 3</u> (c)
1	Office Utility to Plant Calculation Basis per Company	<u>\$106,857</u> [1]	<u>\$116,903</u> [1]	<u>\$119,929</u> [1]
2	Growth Factor per Company	9.40% [1]	2.59% [1]	2.59% [1]
3	Office Utility per Company (L1* (1+L2))	\$116,903 [1]	\$119,929 [1]	\$123,034 [1]
4	Office Utility Calculation Basis per Public Staff	<u>106,857</u> [2]	<u>110,490</u> [2]	<u>113,142</u> [2]
5	Public Staff Growth Factor	3.40% [2]	2.40% [2]	2.40% [2]
6	Office Utility per Public Staff (L4*(1+L5))	<u>\$110,490</u>	<u>\$113,142</u>	<u>\$115,857</u>
7	Adjustment to Office Utility (L6 - L3)	<u>(\$6,412)</u>	<u>(\$6,787)</u>	<u>(\$7,177)</u>

[1] Per examination of the company's response to accounting data requests

[2] Per Public Staff Calculation

CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 400

ADJUSTMENT TO OFFICE UTILITY

For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 3-16(c)**BF/FH/TC WATER OPERATIONS**

Line No.	Item	<u>Rate Year 1</u> (a)	<u>Rate Year 2</u> (b)	<u>Rate Year 3</u> (c)
1	Office Utility to Plant Calculation Basis per Company	<u>\$17,363</u> [1]	<u>\$19,058</u> [1]	<u>\$19,680</u> [1]
2	Growth Factor per Company	9.76% [1]	3.26% [1]	3.26% [1]
3	Office Utility per Company (L1* (1+L2))	\$19,058 [1]	\$19,680 [1]	\$20,322 [1]
4	Office Utility Calculation Basis per Public Staff	<u>17,363</u> [2]	<u>17,953</u> [2]	<u>18,384</u> [2]
5	Public Staff Growth Factor	3.40% [2]	2.40% [2]	2.40% [2]
6	Office Utility per Public Staff (L4*(1+L5))	<u>\$17,953</u>	<u>\$18,384</u>	<u>\$18,825</u>
7	Adjustment to Office Utility (L6 - L3)	<u>(\$1,104)</u>	<u>(\$1,295)</u>	<u>(\$1,496)</u>

[1] Per examination of the company's response to accounting data requests

[2] Per Public Staff Calculation

CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 400

ADJUSTMENT TO OFFICE UTILITY

For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Staff WSIP Exhibit 1
Schedule 3-16(d)**BF/FH/TC SEWER OPERATIONS**

Line No.	Item	<u>Rate Year 1</u>	<u>Rate Year 2</u>	<u>Rate Year 3</u>
		(a)	(b)	(c)
1	Office Utility to Plant Calculation Basis per Company	<u>\$17,772</u>	<u>\$19,567</u>	<u>\$20,329</u>
2	Growth Factor per Company	10.10%	3.89%	3.89%
3	Office Utility per Company (L1* (1+L2))	\$19,567	\$20,329	\$21,120
4	Office Utility Calculation Basis per Public Staff	<u>17,772</u>	<u>18,376</u>	<u>18,817</u> [1]
5	Public Staff Growth Factor	3.40%	2.40%	2.40%
6	Office Utility per Public Staff (L4*(1+L5))	<u>\$18,376</u> [1]	<u>\$18,817</u> [1]	<u>\$19,269</u>
7	Adjustment to Office Utility (L6 - L3)	<u>(\$1,191)</u>	<u>(\$1,511)</u>	<u>(\$1,851)</u>

[1] Per examination of the company's response to accounting data requests.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO MISCELLANEOUS EXPENSE
For The Test Year Ended March 31, 2022

Public Staff WSIP Exhibit 1
Schedule 3-17

Line No.	Item	Base Year			
		CWSNC Water (a)	CWSNC Sewer (b)	BF/FH/TC Water (c)	BF/FH Sewer (d)
1	Miscellaneous expense per application	\$3,141,337	\$1,813,728	\$339,650	\$347,635
2	Adjustment to reflect company's updates 9.19.2022	(171,920) [1]	(102,568) [1]	(20,655) [1]	(21,143) [1]
3	Miscellaneous expense after adjusted for company's updates (L1 + L2)	2,969,417	1,711,160	318,995	326,492
4	Adjustments to remove unqualified miscellaneous expense	(2,261) [1]	(1,343) [1]	(270) [1]	(277) [1]
5	Adjustment to remove Echota and Seven Devils pro-forma acquisition opex	(243,811) [1]	(65,171) [1]		
5	Excess deferred taxes reclassified to deferred income taxes	64,882 [1]	38,709 [1]	8,585 [1]	8,786 [1]
6	Total miscellaneous adjustments (L4+L5)	(181,190)	(27,805)	8,315	8,509
7	Miscellaneous expense per Public Staff (L3 + L6)	2,788,227	1,683,355	327,310	335,001

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

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO MISCELLANEOUS EXPENSE
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 3-17(a)

CWSNC WATER OPERATIONS

Line No.	<u>Item</u>	<u>Rate Year 1</u> (a)	<u>Rate Year 2</u> (b)	<u>Rate Year 3</u> (c)
1	Miscellaneous Expenses Calculation Basis per Company	<u>\$2,969,417</u> [1]	<u>\$3,205,160</u> [1]	<u>\$3,313,224</u> [1]
2	Growth Factor per Company	7.94% [1]	3.37% [1]	3.37% [1]
3	Miscellaneous Expenses per Company (L1* (1+L2))	3,205,160 [1]	3,313,224 [1]	3,424,883 [1]
4	Miscellaneous Expenses Calculation Basis per Public Staff	2,788,227 [2]	2,883,027 [2]	2,952,219 [2]
5	Public Staff Growth Factor	3.40% [2]	2.40% [2]	2.40% [2]
6	Miscellaneous Expenses per Public Staff (L4*(1+L5))	<u>2,883,027</u>	<u>2,952,219</u>	<u>3,023,072</u>
7	Adjustment to Miscellaneous Expenses (L6 - L3)	<u>(322,133)</u>	<u>(361,005)</u>	<u>(401,811)</u>

[1] Per examination of the company's response to accounting data requests

[2] Per Public Staff Calculation

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO MISCELLANEOUS EXPENSE
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 3-17(b)

CWSNC SEWER OPERATIONS

Line No.	<u>Item</u>	<u>Rate Year 1</u>	<u>Rate Year 2</u>	<u>Rate Year 3</u>
		(a)	(b)	(c)
1	Miscellaneous Expenses Calculation Basis per Company	<u>\$1,711,160</u> [1]	<u>\$1,845,289</u> [1]	<u>\$1,893,520</u> [1]
2	Growth Factor per Company	7.84% [1]	2.61% [1]	2.61% [1]
3	Miscellaneous Expenses per Company (L1* (1+L2))	1,845,289 [1]	1,893,520 [1]	1,942,998 [1]
4	Miscellaneous Expenses Calculation Basis per Public Staff	<u>1,683,355</u> [2]	<u>1,740,589</u> [2]	<u>1,782,363</u> [2]
5	Public Staff Growth Factor	3.40% [2]	2.40% [2]	2.40% [2]
6	Miscellaneous Expenses per Public Staff (L4*(1+L5))	<u>1,740,589</u>	<u>1,782,363</u>	<u>1,825,140</u>
7	Adjustment to Miscellaneous Expenses (L6 - L3)	<u>(104,700)</u>	<u>(111,157)</u>	<u>(117,858)</u>

[1] Per examination of the company's response to accounting data requests

[2] Per Public Staff Calculation

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO MISCELLANEOUS EXPENSE
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 3-17(c)

BF/FH/TC WATER OPERATIONS

Line No.	<u>Item</u>	<u>Rate Year 1</u>	<u>Rate Year 2</u>	<u>Rate Year 3</u>
		(a)	(b)	(c)
1	Miscellaneous Expenses Calculation Basis per Company	<u>\$318,995</u> [1]	<u>\$344,102</u> [1]	<u>\$355,613</u> [1]
2	Growth Factor per Company	7.87% [1]	3.35% [1]	3.34% [1]
3	Miscellaneous Expenses per Company (L1* (1+L2))	344,102 [1]	355,613 [1]	367,500 [1]
4	Miscellaneous Expenses Calculation Basis per Public Staff	<u>327,310</u> [2]	<u>338,438</u> [2]	<u>346,561</u> [2]
5	Public Staff Growth Factor	3.40% [2]	2.40% [2]	2.40% [2]
6	Miscellaneous Expenses per Public Staff (L4*(1+L5))	<u>338,438</u>	<u>346,561</u>	<u>354,878</u>
7	Adjustment to Miscellaneous Expenses (L6 - L3)	<u>(5,664)</u>	<u>(9,052)</u>	<u>(12,621)</u>

[1] Per examination of the company's response to accounting data requests

[2] Per Public Staff Calculation

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO MISCELLANEOUS EXPENSE
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 3-17(d)

BF/FH/TC SEWER OPERATIONS

Line No.	Item	<u>Rate Year 1</u> (a)	<u>Rate Year 2</u> (b)	<u>Rate Year 3</u> (c)
1	Miscellaneous Expenses Calculation Basis per Company	<u>\$326,492</u> [1]	<u>\$352,222</u> [1]	<u>\$366,279</u> [1]
2	Growth Factor per Company	7.88% [1]	3.99% [1]	3.99% [1]
3	Miscellaneous Expenses per Company (L1* (1+L2))	352,222 [1]	366,279 [1]	380,882 [1]
4	Miscellaneous Expenses Calculation Basis per Public Staff	<u>335,001</u> [2]	<u>346,391</u> [2]	<u>354,704</u> [2]
5	Public Staff Growth Factor	3.40% [2]	2.40% [2]	2.40% [2]
6	Miscellaneous Expenses per Public Staff (L4*(1+L5))	<u>346,391</u>	<u>354,704</u>	<u>363,217</u>
7	Adjustment to Miscellaneous Expenses (L6 - L3)	<u>(5,832)</u>	<u>(11,575)</u>	<u>(17,665)</u>

[1] Per examination of the company's response to accounting data requests

[2] Per Public Staff Calculation

CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 400

**CALCULATION OF DEPRECIATION AND
AMORTIZATION EXPENSE**

For The Test Year Ended March 31, 2022

Public Staff WSIP Exhibit 1

Schedule 3-18

Line No.		Base Year			
		CWSNC Water (a)	CWSNC Sewer (b)	BF/FH/TC Water (c)	BF/FH Sewer (d)
1	Depreciation on direct plant	\$3,378,788 [1]	\$3,065,342 [6]	\$149,231 [9]	\$398,489 [12]
2	Depreciation on allocated plant	0 [2]	0 [2]	0 [2]	0 [2]
3	Gain on sale	0 [3]	0 [3]	0 [3]	0 [3]
4	Excess book value	0 [3]	0 [3]	0 [3]	0 [3]
5	Total depreciation expense (Sum of L1 thru L4)	<u>\$3,378,788</u>	<u>\$3,065,342</u>	<u>\$149,231</u>	<u>\$398,489</u>
6	Depreciable AIA	0 [3]	0 [3]	0 [3]	0 [3]
7	Amortization rate	2.88% [4]	2.81% [7]	2.38% [10]	2.58% [13]
8	AIA amortization expense (L6 x L7)	\$0	\$0	\$0	\$0
9	CIAC amortization expense	<u>(733,560) [2]</u>	<u>(625,462) [2]</u>	<u>(57,707) [2]</u>	<u>(150,635) [2]</u>
10	CIAC and AIA amortization expense (L8 + L9)	<u>(733,560)</u>	<u>(625,462)</u>	<u>(57,707)</u>	<u>(150,635)</u>
11	Purchase acquisition adjustment	(\$4,221,509) [5]	(\$627,070) [8]	\$607,432 [11]	\$1,680,077 [14]
12	Amortization rate	2.88% [4]	2.81% [7]	2.38% [10]	2.58% [13]
13	PAA amortization expense (L11 x L12)	<u>(\$121,579)</u>	<u>(\$17,621)</u>	<u>\$14,457</u>	<u>\$43,346</u>

[1] Public Staff WSIP Exhibit 1, Schedule 3-17-1(a), Column (c), Line 52.

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

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

[4] Public Staff WSIP Exhibit 1, Schedule 3-17-1(a), Column (d),

[5] Public Staff WSIP Exhibit 1, Schedule 2-8, Column (a), Line 7.

[6] Public Staff WSIP Exhibit 1, Schedule 3-17-1(b), Column (c), Line 65.

[7] Public Staff WSIP Exhibit 1, Schedule 3-17-1(b), Column (d), Line 65.

[8] Public Staff WSIP Exhibit 1, Sch 2-8, Column (d), L 7.

[9] Public Staff WSIP Exhibit 1, Sch 3-17-1(c), Col (c), L46.

[10] Public Staff WSIP Exhibit 1, Sch 3-17-1(c), Col (d), L 46.

[11] Public Staff WSIP Exhibit 1, Sch 2-8, Col (g), L 7.

[12] Public Staff WSIP Exhibit 1, Sch 3-17-1(d), Col (c), L 58.

[13] Public Staff WSIP Exhibit 1, Sch 3-17-1(d), Col (d), L 58.

[14] Public Staff WSIP Exhibit 1, Sch 2-8, Col (j), L 7.

CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 400

**CALCULATION OF DEPRECIATION AND
AMORTIZATION EXPENSE**

For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -
2026

Public Staff WSIP Exhibit 1

Schedule 3-18(a)

CWSNC WATER OPERATIONS

Line No.		<u>Rate Year 1</u>	<u>Rate Year 2</u>	<u>Rate Year 3</u>
		(a)	(b)	(c)
1	Depreciation on direct plant	\$3,721,778 [1]	\$3,920,474 [1]	\$4,033,264 [1]
2	Depreciation on allocated plant	0	0	0
3	Gain on sale	0 [2]	0 [2]	0 [2]
4	Excess book value	0 [2]	0 [2]	0 [2]
5	Total depreciation expense (Sum of L1 thru L4)	<u>\$3,721,778</u>	<u>\$3,920,474</u>	<u>\$4,033,264</u>
6	Depreciable AIA	0 [2]	0 [2]	0 [2]
7	Amortization rate	2.91% [3]	2.88% [3]	2.89% [3]
8	AIA amortization expense (L6 x L7)	-	-	-
9	CIAC amortization expense	<u>(733,560) [4]</u>	<u>(733,560) [4]</u>	<u>(733,560) [4]</u>
10	CIAC and AIAC amortization expense (L8 + L9)	<u>(733,560)</u>	<u>(733,560)</u>	<u>(733,560)</u>
11	Purchase acquisition adjustment	(\$4,221,509) [5]	(\$4,221,509) [5]	(\$4,221,509) [5]
12	Amortization rate	2.91% [3]	2.88% [3]	2.89% [3]
13	PAA amortization expense (L11 x L12)	<u>(\$122,846)</u>	<u>(\$121,579)</u>	<u>(\$122,002)</u>

ok [1] Public Staff WSIP Exhibit I, Schedule 3-17-1(a), Column (c), Line 52.
ok [2] Per examination of Company's financial records.
ok [3] Public Staff WSIP Exhibit I, Schedule 3-17-1(a), Column (d), Line 52.
ok [4] Public Staff WSIP Exhibit I, Schedule 3-18-1(a), Column (e),
ok [5] Public Staff WSIP Exhibit I, Schedule 2-8, Column (a), Line 7.
[6] Public Staff WSIP Exhibit I, Schedule 3-17-1(b), Column (c), Line 65.
[7] Public Staff WSIP Exhibit I, Schedule 3-17-1(b), Column (d), Line 65.

[8] Public Staff WSIP Exhibit I, Schedule 2-8, Column (d), Line 7.
[9] Public Staff WSIP Exhibit I, Schedule 3-17-1(c), Column (c), Line 46.
[10] Public Staff WSIP Exhibit I, Schedule 3-17-1(c), Column (d), Line 46.
[11] Public Staff WSIP Exhibit I, Schedule 2-8, Column (g), Line 7.
[12] Public Staff WSIP Exhibit I, Schedule 3-17-1(d), Column (c), Line 58.
[13] Public Staff WSIP Exhibit I, Schedule 3-17-1(d), Column (d), Line 58.
[14] Public Staff WSIP Exhibit I, Schedule 2-8, Column (j), Line 7.

CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 400

**CALCULATION OF DEPRECIATION AND
AMORTIZATION EXPENSE**

For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1

Schedule 3-18(b)

CWSNC SEWER OPERATIONS

Line No.		<u>Rate Year 1</u>	<u>Rate Year 2</u>	<u>Rate Year 3</u>
		(a)	(b)	(c)
1	Depreciation on direct plant	\$3,442,879 [6]	\$3,576,077 [6]	\$4,015,970 [6]
2	Depreciation on allocated plant	0 [2]	0 [2]	0 [2]
3	Gain on sale	0 [3]	0 [3]	0 [3]
4	Excess book value	0 [3]	0 [3]	0 [3]
5	Total depreciation expense (Sum of L1 thru L4)	<u>\$3,442,879</u>	<u>\$3,576,077</u>	<u>\$4,015,970</u>
6	Depreciable AIA	0 [3]	0 [3]	0 [3]
7	Amortization rate	2.75% [7]	2.75% [7]	2.73% [7]
8	AIA amortization expense (L6 x L7)	-	-	-
9	CIAC amortization expense	<u>(625,462)</u>	<u>(625,462)</u>	<u>(625,462) [2]</u>
10	CIAC and AIAC amortization expense (L8 + L9)	<u>(625,462)</u>	<u>(625,462)</u>	<u>(625,462)</u>
11	Purchase acquisition adjustment	(\$627,070) [8]	(\$627,070) [8]	(\$627,070) [8]
12	Amortization rate	2.75% [7]	2.75% [7]	2.73% [7]
13	PAA amortization expense (L11 x L12)	<u>(\$17,244)</u>	<u>(\$17,244)</u>	<u>(\$17,119)</u>

[1] Public Staff WSIP Exhibit I, Schedule 3-17-1(a), Column (c), Line 52.

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

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

[4] Public Staff WSIP Exhibit I, Schedule 3-17-1(a), Column (d),

[5] Public Staff WSIP Exhibit I, Schedule 2-8, Column (a), Line 7.

[6] Public Staff WSIP Exhibit I, Schedule 3-17-1(b), Column (c), Line 65.

[7] Public Staff WSIP Exhibit I, Schedule 3-17-1(b), Column (d), Line 65.

[8] Public Staff WSIP Exhibit I, Schedule 2-8, Column (d), Line 7.

[9] Public Staff WSIP Exhibit I, Schedule 3-17-1(c), Column (c), Line 46.

[10] Public Staff WSIP Exhibit I, Schedule 3-17-1(c), Column (d), Line 46.

[11] Public Staff WSIP Exhibit I, Schedule 2-8, Column (g), Line 7.

[12] Public Staff WSIP Exhibit I, Schedule 3-17-1(d), Column (c), Line 58.

[13] Public Staff WSIP Exhibit I, Schedule 3-17-1(d), Column (d), Line 58.

[14] Public Staff WSIP Exhibit I, Schedule 2-8, Column (j), Line 7.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
**CALCULATION OF DEPRECIATION AND
AMORTIZATION EXPENSE**
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 3-18(c)

BF/FH/TC WATER OPERATIONS		Rate Year 1	Rate Year 2	Rate Year 3
Line No.		(a)	(b)	(c)
1	Depreciation on direct plant	\$203,467 [9]	\$230,489 [9]	\$235,839 [9]
2	Depreciation on allocated plant	0 [2]	0 [2]	0 [2]
3	Gain on sale	0 [3]	0 [3]	0 [3]
4	Excess book value	0 [3]	0 [3]	0 [3]
5	Total depreciation expense (Sum of L1 thru L4)	<u>\$203,467</u>	<u>\$230,489</u>	<u>\$235,839</u>
6	Depreciable AIA	0 [3]	0 [3]	0 [3]
7	Amortization rate	2.33% [10]	2.41% [10]	2.39% [10]
8	AIA amortization expense (L6 x L7)	-	-	-
9	CIAC amortization expense	<u>(57,707)</u>	<u>(57,707)</u>	<u>(57,707) [2]</u>
10	CIAC and AIAC amortization expense (L8 + L9)	<u>(57,707)</u>	<u>(57,707)</u>	<u>(57,707)</u>
11	Purchase acquisition adjustment	\$607,432 [11]	\$607,432 [11]	\$607,432 [11]
12	Amortization rate	2.33% [10]	2.41% [10]	2.39% [10]
13	PAA amortization expense (L11 x L12)	<u>\$14,153</u>	<u>\$14,639</u>	<u>\$14,518</u>

- [1] Public Staff WSIP Exhibit I, Schedule 3-17-1(a), Column (c), Line 52.
[2] Calculated by the Public Staff based on information provided by the Company.
[3] Per examination of Company's financial records.
[4] Public Staff WSIP Exhibit I, Schedule 3-17-1(a), Column (d),
[5] Public Staff WSIP Exhibit I, Schedule 2-8, Column (a), Line 7.
[6] Public Staff WSIP Exhibit I, Schedule 3-17-1(b), Column (c), Line 65.
[7] Public Staff WSIP Exhibit I, Schedule 3-17-1(b), Column (d), Line 65.

- [8] Public Staff WSIP Exhibit I, Schedule 2-8, Column (d), Line 7.
[9] Public Staff WSIP Exhibit I, Schedule 3-17-1(c), Column (c), Line 46.
[10] Public Staff WSIP Exhibit I, Schedule 3-17-1(c), Column (d), Line 46.
[11] Public Staff WSIP Exhibit I, Schedule 2-8, Column (g), Line 7.
[12] Public Staff WSIP Exhibit I, Schedule 3-17-1(d), Column (c), Line 58.
[13] Public Staff WSIP Exhibit I, Schedule 3-17-1(d), Column (d), Line 58.
[14] Public Staff WSIP Exhibit I, Schedule 2-8, Column (j), Line 7.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
**CALCULATION OF DEPRECIATION AND
AMORTIZATION EXPENSE**
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 3-18(d)

BF/FH/TC SEWER OPERATIONS		<u>Rate Year 1</u>	<u>Rate Year 2</u>	<u>Rate Year 3</u>
<u>Line No.</u>		<u>(a)</u>	<u>(b)</u>	<u>(c)</u>
1	Depreciation on direct plant	\$415,979 [12]	\$560,236 [12]	\$569,569 [12]
2	Depreciation on allocated plant	0 [2]	0 [2]	0 [2]
3	Gain on sale	0 [3]	0 [3]	0 [3]
4	Excess book value	0 [3]	0 [3]	0 [3]
5	Total depreciation expense (Sum of L1 thru L4)	<u>\$415,979</u>	<u>\$560,236</u>	<u>\$569,569</u>
6	Depreciable AIA	0 [3]	0 [3]	0 [3]
7	Amortization rate	2.51% [13]	2.51% [13]	2.49% [13]
8	AIA amortization expense (L6 x L7)	-	-	-
9	CIAC amortization expense	<u>(150,635) [2]</u>	<u>(150,635) [2]</u>	<u>(150,635) [2]</u>
10	CIAC and AIAC amortization expense (L8 + L9)	<u>(150,635)</u>	<u>(150,635)</u>	<u>(150,635)</u>
11	Purchase acquisition adjustment	\$1,680,077 [14]	\$1,680,077 [14]	\$1,680,077 [14]
12	Amortization rate	2.51% [13]	2.51% [13]	2.49% [13]
13	PAA amortization expense (L11 x L12)	<u>\$42,170</u>	<u>\$42,170</u>	<u>\$41,834</u>

- [1] Public Staff WSIP Exhibit I, Schedule 3-17-1(a), Column (c), Line 52.
[2] Calculated by the Public Staff based on information provided by the Company.
[3] Per examination of Company's financial records.
[4] Public Staff WSIP Exhibit I, Schedule 3-17-1(a), Column (d),
[5] Public Staff WSIP Exhibit I, Schedule 2-8, Column (a), Line 7.
[6] Public Staff WSIP Exhibit I, Schedule 3-17-1(b), Column (c), Line 65.
[7] Public Staff WSIP Exhibit I, Schedule 3-17-1(b), Column (d), Line 65.

- [8] Public Staff WSIP Exhibit I, Schedule 2-8, Column (d), Line 7.
[9] Public Staff WSIP Exhibit I, Schedule 3-17-1(c), Column (c), Line 46.
[10] Public Staff WSIP Exhibit I, Schedule 3-17-1(c), Column (d), Line 46.
[11] Public Staff WSIP Exhibit I, Schedule 2-8, Column (g), Line 7.
[12] Public Staff WSIP Exhibit I, Schedule 3-17-1(d), Column (c), Line 58.
[13] Public Staff WSIP Exhibit I, Schedule 3-17-1(d), Column (d), Line 58.
[14] Public Staff WSIP Exhibit I, Schedule 2-8, Column (j), Line 7.

CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 400

**CALCULATION OF DIRECT PLANT
DEPRECIATION EXPENSE**

For The Test Year Ended March 31, 2022

Public Staff WS P Exhibit 1
Schedule 3-18-1(a)

CWSNC WATER OPERATIONS

Line No.	New Account No.	Item	Plant In Service (a)	Depreciation Rate (b)	Annual Depreciation [3] (c)	Composite Rate (d)
1	141201	Organization	\$410,888	2.50%	\$10,272	
2	141202	Franchises	\$140,283	2.50%	3,507	
3	141102	Land & land rights pump	\$0	0.00%	0	
4	141103	Land and Rights Water	\$0	0.00%	0	
5	141104	Land and Rights Trans	\$0	0.00%	0	
6	141101	Land & land rights gen. plt.	\$150,596	0.00%	0	
7	141204	Struct & improv. src. supply	\$4,489,620	2.00%	89,792	
8	141205	Struct & improv. wtr. trt. plt.	\$1,606,807	2.00%	32,136	
9	141206	Struct & improv. trans. dist.	\$290,026	2.00%	5,801	
10	141203	Struct & improv. gen. plt.	\$422,052	2.00%	8,441	
11	141221	Collecting reservoirs	\$732,382	2.00%	14,648	
12	141223	Wells & springs	\$14,627,308	2.00%	292,546	
13	141224	Infiltration gallery	\$45,185	2.50%	1,130	
14	141225	Supply mains	\$853,751	1.00%	8,538	
15	141226	Power generation equip.	\$167,421	10.00%	16,742	
16	141227	Electric pump equip. src. plt.	\$3,022,067	14.29%	431,853	
17	141228	Electric pump equip. wtp.	\$9,069,838	3.33%	302,026	
18	141229	Electric pump equip. trans.	\$4,786,213	14.29%	683,950	
19	141230	Water treatment equip.	\$5,681,387	2.50%	142,035	
20	141231	Dist. resv. & standpipes	\$8,243,639	2.00%	164,873	
21	141232	Trans. & distr. mains	\$35,648,630	1.00%	356,486	
22	141233	Service lines	\$14,950,351	2.00%	299,007	
23	141234	Meters	\$6,361,624	3.33%	211,842	
24	141235	Meter installations	\$2,095,782	3.33%	69,790	
25	141236	Hydrants	\$1,452,995	2.50%	36,325	
26	141237	Backflow prevention devic.	\$61,347	10.00%	6,135	
27	141268	Other plt. & misc. equip. src. su.	\$0	2.50%	0	
28	141269	Other plt. & misc. equip. wtp.	\$23,372	2.50%	584	
29	141220	Office struct & improv.	\$95,359	10.00%	9,536	
30	141303	Office furn. & equip.	\$80,259	10.00%	8,026	
31	141305	Stores equipment	\$16,056	3.33%	535	
32	141308	Tool shop & misc. equip.	\$510,940	5.00%	25,547	
33	141306	Laboratory equipment	\$67,258	10.00%	6,726	
34	141309	Power operated equip.	\$371,593	10.00%	37,159	
35	141310	Communication equip.	\$168,137	10.00%	16,814	
36	141311	Misc. equipment	\$207,547	3.33%	6,911	
37	141278	Water plant allocated	\$207,809	6.67%	13,861	
38	141271	Other tangible plt. water	\$11,508	2.50%	288	
39	141248	Receiving Wells	\$176,603	2.00%	3,532	
40	141401	Transportation equip.	\$306,968	20.00%	61,394	
41	141503	Mainframe computer - wtr	(\$4,591)	0.00%	0	
42	141504	Mini computer - wtr	(\$31,950)	0.00%	0	
43	141602	Comp. system cost - wtr	(\$136,755)	0.00%	0	
44	141603	Micro system cost - wtr	(\$2,375)	0.00%	0	
45	141255	Plant Sewers Treatment Plt	\$0	2.50%	0	
46	141299	Utility Plant Clearing	(\$0)	0.00%	0	
47	141699	Computer Clearing	\$0	0.00%	0	
48	141601	Computer Software	(\$4,470)	0.00%	0	
49	141501	Computer Hardware	(\$30)	0.00%	0	
50	141502	Desktop/Laptop Computers	(\$679)	0.00%	0	
51	141293	Plant Held for Future Use	\$0	0.00%	0	
52	141399	Building and Equipment Clearing	\$0	0.00%	0	
53		Pro forma plant additions		0.00%	0	
54		Total plant in service (Sum of L1 thru L51)	<u>\$117,372,752</u>		<u>\$3,378,788</u>	<u>2.88%</u> [4]

[1] Public Staff WSIP Exhibit 1, Schedule 2-1(a)(1), Column (d).

[2] Depreciation rates approved in Docket No. W-354, Sub 344.

[3] Column (a) multiplied by Column (b).

[4] Column (c) divided by Column (a), Line 54.

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Dec 05 2022

CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 400

CALCULATION OF DIRECT PLANT**DEPRECIATION EXPENSE**

For The Test Year Ended March 31, 2022

Public Staff WS P Exhibit 1
Schedule 3-18-1(b)**CWSNC SEWER OPERATIONS**

Line No.	New Account No.	tem	Plant In Service (a)	Depreciation Rate (b)	Annual Depreciation (c)	Composite Rate (d)
1	141201	Organization	\$883,492	2.50%	\$22,087	
2	141202	Franchises intang. plt.	\$127,476	2.50%	3,187	
3	141107	Land and Rights Treatment	\$0	0.00%	0	
4	141108	Land and Rights Reclaim	\$0	0.00%	0	
5	141101	Land & land rights gen. plt.	\$0	0.00%	0	
6	141207	Struct/improv. coll. plt.	\$107,603	2.00%	2,152	
7	141208	Struct/improv. pump plt. ls.	\$11,419,401	2.00%	228,388	
8	141209	Struct/improv. treat. plt.	\$20,068,597	2.50%	501,715	
9	141210	Struct/improv. reclaim. wtr.	\$2,586	2.50%	65	
10	141211	Struct/improv. reclaim. wtr.	\$180,481	2.50%	4,512	
11	141203	Struct/improv. gen. plt.	\$1,707,245	2.00%	34,145	
12	141238	Power gen. equip. coll. plt.	\$107,623	10.00%	10,762	
13	141239	Power gen. equip. pump plt.	\$53,341	10.00%	5,334	
14	141240	Power gen. equip. treat. plt.	\$313,217	10.00%	31,322	
15	141241	Sewer force main/serv. lin.	\$4,404,358	1.33%	58,578	
16	141242	Sewer gravity main	\$18,842,080	1.00%	188,421	
17	141243	Manholes	\$1,521,696	1.00%	15,217	
18	141244	Special coll. structures	\$7,032	2.00%	141	
19	141245	Services to customers	\$2,249,446	1.33%	29,918	
20	141246	Flow measure devices	\$145,734	4.00%	5,829	
21	141247	Flow measure install	\$1,106	4.00%	44	
22	141248	Receiving wells	\$233,985	2.00%	4,680	
23	141249	Pumping equipment pump plt.	\$5,142,262	14.29%	734,829	
24	141250	Pumping equipment reclaim.	\$39,650	14.29%	5,666	
25	141251	Pumping equipment rcl. wtr.	\$83,456	14.29%	11,926	
26	141252	Treat./disp. equip. lagoon	\$597,528	2.50%	14,938	
27	141253	Treat./disp. equip. trt. plt.	\$18,875,550	2.50%	471,889	
28	141254	Treat./disp. equip. rct. wtr.	\$29,387	2.50%	735	
29	141255	Plant sewers treat. plt.	\$17,985,978	2.50%	449,649	
30	141256	Plant sewers reclaim wtr.	\$8,065	2.50%	202	
31	141257	Outfall lines	\$656,343	1.00%	6,563	
32	141271	Other plt. tangible	\$14,761	2.50%	369	
33	141272	Other plt. collection	\$11,641	2.00%	233	
34	141273	Other plt. pump	\$471,095	2.50%	11,777	
35	141274	Other plt. treatment	\$334,740	2.50%	8,369	
36	141275	Other plt. reclaim wtr. trt.	\$0	2.50%	0	
37	141276	Other plt. reclaim wtr. dis.	\$460	2.50%	11	
38	141220	Office struct & improv.	\$52,857	10.00%	5,286	
39	141303	Office furn. & equip.	\$43,408	10.00%	4,341	
40	141305	Stores equipment	\$8,111	3.33%	270	
41	141308	Tool shop & misc. equip.	\$226,555	5.00%	11,328	
42	141306	Laboratory equipment	\$159,287	10.00%	15,929	
43	141309	Power operated equip.	\$478,138	10.00%	47,814	
44	141310	Communication equip.	\$103,571	10.00%	10,357	
45	141311	Misc equip. sewer	\$66,764	3.33%	2,223	
46	141278	Sewer plant allocated	\$526,952	6.67%	35,148	
47	0	Other tangible plt. sewer	\$0	2.50%	0	
48	141263	Reuse dist. reservoirs	\$3,507	2.00%	70	
49	141264	Reuse transmission & dist.	\$121,119	2.00%	2,422	
50	141401	Transportation equip.	\$183,139	20.00%	36,628	
51	141502	Desktop computer - wtr	(\$405)	0.00%	0	
52	141503	Mainframe computer - wtr	(\$2,739)	0.00%	0	
53	141504	Mini computer - wtr	(\$22,943)	0.00%	0	
54	141602	Comp. system cost - wtr	\$27,423	0.00%	0	
55	141603	Micro system cost - wtr	(\$1,417)	0.00%	0	
56	141501	Computer Hardware	(\$18)	0.00%	0	
57	141299	Utility Plant Clearing	(\$0)	0.00%	0	
58	141399	Building and Equipment Clearing	\$0	0.00%	0	
59	141233	Service Lines	(\$120)	2.00%	(2)	
60	141699	Computer Clearing	\$0	0.00%	0	
62	141601	Computer Software	(\$2,667)	0.00%	0	
63	141231	Dist Resv and Standpipes	\$0	2.00%	0	
64	141232	Trans and Distr Mains	\$0	1.00%	0	
65	141293	Plt. held for future use	\$0	0.00%	0	
66	141205	Struct and Improv Water Treat Plt	\$0	2.00%	0	
67	141230	Water Treatment Equipment	\$0	2.50%	0	
68	141226	Power Generation Equipment	\$298,745	10.00%	29,875	
69	113101		\$0	0.00%	0	
70		Pro forma plant additions	\$0	0.00%	0	
71		Total plant in service (Sum of L1 thru L64)	<u>\$108,896,685</u>		<u>\$3,065,342</u>	<u>2.81%</u> [4]

[1] Public Staff W/SIP Exhibit 1, Schedule 2-1(b)(1), Column (d).

[2] Depreciation rates approved in Docket No. W-354, Sub 344.

[3] Column (a) multiplied by Column (b).

[4] Column (c) divided by Column (a), Line 71.

CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 400

CALCULATION OF DIRECT PLANT**DEPRECIATION EXPENSE**

For The Test Year Ended March 31, 2022

Public Staff WS P Exhibit 1
Schedule 3-18-1(c)**BF/FH/TC WATER OPERATIONS**

Line No.	New Account No.	tem	Plant In Service (a)	Depreciation Rate (1) (b)	Annual Depreciation (2) (c)	Composite Rate (3) (d)
1	141201	Organization	\$79,800	2.50%	\$1,995	
2	141202	Franchises	\$51,240	2.50%	1,281	
3	141501	Computer Hardware	(\$4)	16.67%	(1)	
4	141502	Desktop/Laptop Computers	(\$82)	16.67%	(14)	
5	141601	Computer Software	(\$537)	0.00%	0	
6	141101	Land & land rights gen. plt.	\$0	0.00%	0	
7	141204	Struct & improv. src. supply	\$214,617	2.00%	4,292	
8	141205	Struct & improv. wtr. trt. plt.	\$147,285	2.00%	2,946	
9	141206	Struct & improv. trans. dist.	\$461	2.00%	9	
10	141203	Struct & improv. gen. plt.	\$2,244	2.00%	45	
11	141221	Collecting reservoirs	\$0	2.00%	0	
12	141223	Wells & springs	\$510,515	2.00%	10,210	
13	141224	Infiltration gallery		2.50%	0	
14	141225	Supply mains	\$10,995	1.00%	110	
15	141226	Power generation equip.		10.00%	0	
16	141227	Electric pump equip. src. plt.	\$63,258	14.29%	9,040	
17	141228	Electric pump equip. wtp.	\$400,215	3.33%	13,327	
18	141229	Electric pump equip. trans.	\$63,012	14.29%	9,004	
19	141230	Water treatment equip.	\$152,696	2.50%	3,817	
20	141231	Dist. resv. & standpipes	\$920,874	2.00%	18,417	
21	141232	Trans. & distr. mains	\$1,900,043	1.00%	19,000	
22	141233	Service lines	\$874,073	2.00%	17,481	
23	141234	Meters	\$197,234	3.33%	6,568	
24	141235	Meter installations	\$186,239	3.33%	6,202	
25	141236	Hydrants	\$278,957	2.50%	6,974	
26	141237	Backflow prevention devic.	\$151	10.00%	15	
27	141268	Other plt. & misc. equip. src. su.		2.50%	0	
28	141269	Other plt. & misc. equip. wtp.	\$0	2.50%	0	
29	141220	Office struct & improv.	\$24,979	10.00%	2,498	
30	141303	Office furn. & equip.	\$2,993	10.00%	299	
31	141305	Stores equipment	\$348	3.33%	12	
32	141308	Tool shop & misc. equip.	\$102,382	5.00%	5,119	
33	141306	Laboratory equipment	\$14,540	10.00%	1,454	
34	141309	Power operated equip.	\$13,291	10.00%	1,329	
35	141310	Communication equip.	\$77,889	10.00%	7,789	
36	141311	Misc. equipment	\$528	3.33%	18	
37	141278	Water plant allocated		6.67%	0	
38	141271	Other tangible plt. water		2.50%	0	
39	141401	Transportation equip.	(\$26)	20.00%	(5)	
40	141503	Mainframe computer - wtr	(\$552)	0.00%	0	
41	141504	Mini computer - wtr	(\$3,474)	0.00%	0	
42	141602	Comp. system cost - wtr	(\$16,431)	0.00%	0	
43	141603	Micro system cost - wtr	(\$285)	0.00%	0	
44	141293	Plt. held for future use		0.00%	0	
45	141699	Computer Clearing	\$0	0.00%	0	
46	141299	Utility Plant Clearing	\$0	0.00%	0	
47	141102	Land & land rights pump	\$0	0.00%	0	
48	141399	Building and Equipment Clearing	\$0	0.00%	0	
49	Total plant in service (Sum of L1 thru L45)		\$6,269,466		\$149,231	2.38% [4]

[1] Public Staff WSIP Exhibit 1, Schedule 2-1(c)(1), Column (d)

[2] Depreciation rates approved in Docket No. W-354, Sub 344.

[3] Column (a) multiplied by Column (b).

[4] Column (c) divided by Column (a), Line 49.

CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 400

CALCULATION OF DIRECT PLANT**DEPRECIATION EXPENSE**

For The Test Year Ended March 31, 2022

Public Staff WS P Exhibit 1
Schedule 3-18-1(d)**BF/FH SEWER OPERATIONS**

Line No.	New Account No.	tem	Plant In Service (a)	Depreciation Rate (b)	Annual Depreciation (c)	Composite Rate (d)
1	141201	Organization	\$14,682	2.50%	\$367	
2	141202	Franchises	\$41,938	2.50%	1,048	
3	141203	Struct and Improv General Plant	\$267,093	2.00%	5,342	
4	141207	Struct and Improv Collect Plant	\$150	0.00%	0	
5	141208	Struct and Improv Pump Plant	\$1,690,854	2.00%	33,817	
6	141209	Struct and Improv Treatment Plant	\$1,837,554	2.50%	45,939	
7	141211	Struct and Improv Reclaim Wtr Dist	\$2,477	2.50%	62	
8	141220	Struct and Improv Office	\$74,442	10.00%	7,444	
9	141227	Electric Pump Equip Src Pump	(\$2,538)	0.00%	0	
10	141230	Water Treatment Equipment	\$944,752	0.00%	0	
11	141231	Dist Resv and Standpipes	\$0	2.00%	0	
12	141232	Trans and Distr Mains	\$0	1.00%	0	
13	141239	Power Gen Equip Pump Plt	\$112,475	10.00%	11,247	
14	141241	Sewer Force Main	\$227,006	1.33%	3,019	
15	141242	Sewer Gravity Main	\$5,331,906	1.00%	53,319	
16	141243	Manholes	\$53,112	1.00%	531	
17	141244	Special Collection Structures	\$775	2.00%	16	
18	141245	Service to Customers	\$339,216	1.33%	4,512	
19	141246	Flow Measure Devices	\$17,806	4.00%	712	
20	141249	Pumping Equip Pump Plt	\$826,753	14.29%	118,143	
21	141250	Pumping Equip Reclaim WTP	\$96,219	14.29%	13,750	
22	141252	Treat/Disp Equip Lagoon	\$56	2.50%	1	
23	141253	Treat/Disp Equip Trt Plt	\$2,830,361	2.50%	70,759	
24	141255	Plant Sewers Treatment Plt	\$393,451	2.50%	9,836	
25	141257	Outfall Lines	\$74,700	1.00%	747	
26	141263	Reuse Dist Reservoirs	\$2,763	2.00%	55	
27	141264	Reuse Transmission and Dist	\$2,491	2.00%	50	
28	141271	Other Tangible Plant	\$79,334	2.50%	1,983	
29	141272	Other Plant Collection	(\$224)	2.00%	(4)	
30	141273	Other Plant Pump	\$3,442	2.50%	86	
31	141275	Other Plant Reclaim Water Trt	\$12,677	2.50%	317	
32	141299	Utility Plant Clearing	(\$0)	0.00%	0	
33	141303	Office Furniture	\$316	10.00%	32	
34	141305	Stores Equipment	\$2,798	3.33%	93	
35	141306	Lab Equipment	\$6,734	10.00%	673	
36	141308	Tool Shop Equipment	\$21,346	5.00%	1,067	
37	141309	Power Operated Equipment	\$53,931	10.00%	5,393	
38	141310	Communications Equipment	\$58,359	10.00%	5,836	
39	141311	Misc Equipment	\$68,996	3.33%	2,298	
40	141399	Building and Equipment Clearing	\$0	0.00%	0	
41	141401	Vehicles	(\$26)	0.00%	0	
42	141501	Computer Hardware	(\$4)	16.67%	(1)	
43	141502	Desktop/Laptop Computers	(\$83)	0.00%	0	
44	141503	Mainframe Computers	(\$565)	0.00%	0	
45	141504	Mini Comp Wtr	(\$5,283)	0.00%	0	
46	141601	Computer Software	(\$550)	0.00%	0	
47	141602	Comp Systems	(\$16,819)	0.00%	0	
48	141603	Micro Systems	(\$292)	0.00%	0	
49	141699	Computer Clearing	\$0	0.00%	0	
50	141251	Pumping Equip Rcl Wtr Dist	\$0	14.29%	0	
51	141254	Treat/Disp Equip Rclm Wtr	\$0	2.50%	0	
52						
53		Total plant in service (Sum of L1 thru L57)	\$15 464 580		\$398 489	2.58% [4]

[1] Public Staff WSIP Exhibit 1, Schedule 2-1(d)(1), Column (d).

[2] Depreciation rates approved in Docket No. W-354, Sub 344.

[3] Column (a) multiplied by Column (b).

[4] Column (c) divided by Column (a), Line 53.

CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 400

**CALCULATION OF DIRECT PLANT
DEPRECIATION EXPENSE**

For The Test Year Ended March 31, 2024

Public Staff WS P Exhibit 1
Schedule 3-18(a)(1)

CWSNC WATER OPERATIONS

Line No.	New Account No.	Item	Plant In Service [1] (a)	Depreciation Rate [2] (b)	Annual Depreciation [3] (c)	Composite Rate (d)
1	141201	Organization	\$410,888	2.50%	\$10,272	
2	141202	Franchises	\$140,283	2.50%	3,507	
3	141102	Land & land rights pump	\$0	0.00%	0	
4	141103	Land and Rights Water	\$0	0.00%	0	
5	141104	Land and Rights Trans	\$0	0.00%	0	
6	141101	Land & land rights gen. plt.	\$150,596	0.00%	0	
7	141204	Struct & improv. src. supply	\$4,879,730	2.00%	97,595	
8	141205	Struct & improv. wtr. trt. plt.	\$1,660,660	2.00%	33,213	
9	141206	Struct & improv. trans. dist.	\$297,499	2.00%	5,950	
10	141203	Struct & improv. gen. plt.	\$437,878	2.00%	8,758	
11	141221	Collecting reservoirs	\$732,382	2.00%	14,648	
12	141223	Wells & springs	\$15,567,071	2.00%	311,341	
13	141224	Infiltration gallery	\$45,185	2.50%	1,130	
14	141225	Supply mains	\$952,189	1.00%	9,522	
15	141226	Power generation equip.	\$168,108	10.00%	16,811	
16	141227	Electric pump equip. src. plt.	\$3,080,832	14.29%	440,251	
17	141228	Electric pump equip. wtp.	\$9,494,119	3.33%	316,154	
18	141229	Electric pump equip. trans.	\$4,896,743	14.29%	699,745	
19	141230	Water treatment equip.	\$6,480,346	2.50%	162,009	
20	141231	Dist. resv. & standpipes	\$8,392,936	2.00%	167,859	
21	141232	Trans. & distr. mains	\$38,933,257	1.00%	389,333	
22	141233	Service lines	\$14,950,351	2.00%	299,007	
23	141234	Meters	\$9,212,661	3.33%	306,782	
24	141235	Meter installations	\$2,095,782	3.33%	69,790	
25	141236	Hydrants	\$1,504,625	2.50%	37,616	
26	141237	Backflow prevention devic.	\$62,898	10.00%	6,290	
27	141268	Other plt. & misc. equip. src. su.	\$0	2.50%	0	
28	141269	Other plt. & misc. equip. wtp.	\$23,372	2.50%	584	
29	141220	Office struct & improv.	\$320,359	10.00%	32,036	
30	141303	Office furn. & equip.	\$80,259	10.00%	8,026	
31	141305	Stores equipment	\$18,867	3.33%	628	
32	141308	Tool shop & misc. equip.	\$517,194	5.00%	25,860	
33	141306	Laboratory equipment	\$68,729	10.00%	6,873	
34	141309	Power operated equip.	\$377,447	10.00%	37,745	
35	141310	Communication equip.	\$1,162,663	10.00%	116,266	
36	141311	Misc. equipment	\$213,259	3.33%	7,102	
37	141278	Water plant allocated	\$207,809	6.67%	13,861	
38	141271	Other tangible plt. water	\$11,508	2.50%	288	
39	141248	Receiving Wells	\$176,603	2.00%	3,532	
40	141401	Transportation equip.	\$306,968	20.00%	61,394	
41	141503	Mainframe computer - wtr	(\$4,591)	0.00%	0	
42	141504	Mini computer - wtr	(\$31,950)	0.00%	0	
43	141602	Comp. system cost - wtr	(\$136,755)	0.00%	0	
44	141603	Micro system cost - wtr	(\$2,375)	0.00%	0	
45	141255	Plant Sewers Treatment Plt	\$0	2.50%	0	
46	141299	Utility Plant Clearing	(\$0)	0.00%	0	
47	141699	Computer Clearing	\$0	0.00%	0	
48	141601	Computer Software	(\$4,470)	0.00%	0	
49	141501	Computer Hardware	(\$30)	0.00%	0	
50	141502	Desktop/Laptop Computers	(\$679)	0.00%	0	
51	141293	Plant Held for Future Use	\$0	0.00%	0	
52	141399	Building and Equipment Clearing	\$0	0.00%	0	
53		Pro forma plant additions		0.00%	0	
54		Total plant in service (Sum of L1 thru L51)	<u>\$127,851,209</u>		<u>\$3,721,778</u>	<u>2.91%</u> [4]

[1] Sun Exhibit I, Schedule 2-1(a)(1), Column (d).

[2] Depreciation rates approved in Docket No. W-354, Sub 344.

[3] Column (a) multiplied by Column (b).

[4] Column (c) divided by Column (a), Line 54.

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CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 400

CALCULATION OF DIRECT PLANT**DEPRECIATION EXPENSE**

For The Test Year Ended March 31, 2024

Public Staff WS P Exhibit 1
Schedule 3-18(b)(1)**CWSNC SEWER OPERATIONS**

Line No.	New Account No.	tem	Plant In Service (a)	Depreciation Rate (b)	Annual Depreciation (c)	Composite Rate (d)
1	141201	Organization	\$883,492	2.50%	\$22,087	
2	141202	Franchises intang. plt.	\$127,476	2.50%	3,187	
3	141107	Land and Rights Treatment	\$0	0.00%	0	
4	141108	Land and Rights Reclaim	\$0	0.00%	0	
5	141101	Land & land rights gen. plt.	\$0	0.00%	0	
6	141207	Struct/improv. coll. plt.	\$112,301	2.00%	2,246	
7	141208	Struct/improv. pump plt. ls.	\$11,596,537	2.00%	231,931	
8	141209	Struct/improv. treat. plt.	\$30,537,922	2.50%	763,448	
9	141210	Struct/improv. reclaim. wtp.	\$2,586	2.50%	65	
10	141211	Struct/improv. reclaim. wtr.	\$180,699	2.50%	4,517	
11	141203	Struct/improv. gen. plt.	\$1,735,846	2.00%	34,717	
12	141238	Power gen. equip. coll. plt.	\$107,623	10.00%	10,762	
13	141239	Power gen. equip. pump plt.	\$53,476	10.00%	5,348	
14	141240	Power gen. equip. treat. plt.	\$320,738	10.00%	32,074	
15	141241	Sewer force main/serv. lin.	\$4,457,704	1.33%	59,287	
16	141242	Sewer gravity main	\$22,083,999	1.00%	220,840	
17	141243	Manholes	\$1,521,696	1.00%	15,217	
18	141244	Special coll. structures	\$7,313	2.00%	146	
19	141245	Services to customers	\$2,249,446	1.33%	29,918	
20	141246	Flow measure devices	\$152,603	4.00%	6,104	
21	141247	Flow measure install	\$1,126	4.00%	45	
22	141248	Receiving wells	\$269,954	2.00%	5,399	
23	141249	Pumping equipment pump plt.	\$5,318,066	14.29%	759,952	
24	141250	Pumping equipment reclaim.	\$40,271	14.29%	5,755	
25	141251	Pumping equipment rcl. wtr.	\$87,420	14.29%	12,492	
26	141252	Treat./disp. equip. lagoon	\$603,169	2.50%	15,079	
27	141253	Treat./disp. equip. trt. plt.	\$20,680,583	2.50%	517,015	
28	141254	Treat./disp. equip. rct. wtp.	\$33,489	2.50%	837	
29	141255	Plant sewers treat. plt.	\$18,041,175	2.50%	451,029	
30	141256	Plant sewers reclaim wtp.	\$8,252	2.50%	206	
31	141257	Outfall lines	\$692,341	1.00%	6,923	
32	141271	Other plt. tangible	\$17,346	2.50%	434	
33	141272	Other plt. collection	\$11,727	2.00%	235	
34	141273	Other plt. pump	\$472,395	2.50%	11,810	
35	141274	Other plt. treatment	\$350,886	2.50%	8,772	
36	141275	Other plt. reclaim wtr. trt.	\$0	2.50%	0	
37	141276	Other plt. reclaim wtr. dis.	\$460	2.50%	11	
38	141220	Office struct & improv.	\$52,857	10.00%	5,286	
39	141303	Office furn. & equip.	\$43,408	10.00%	4,341	
40	141305	Stores equipment	\$8,722	3.33%	290	
41	141308	Tool shop & misc. equip.	\$230,278	5.00%	11,514	
42	141306	Laboratory equipment	\$162,500	10.00%	16,250	
43	141309	Power operated equip.	\$497,051	10.00%	49,705	
44	141310	Communication equip.	\$108,700	10.00%	10,870	
45	141311	Misc equip. sewer	\$72,655	3.33%	2,419	
46	141278	Sewer plant allocated	\$526,952	6.67%	35,148	
47	0	Other tangible plt. sewer	\$0	2.50%	0	
48	141263	Reuse dist. reservoirs	\$3,533	2.00%	71	
49	141264	Reuse transmission & dist.	\$129,825	2.00%	2,596	
50	141401	Transportation equip.	\$183,139	20.00%	36,628	
51	141502	Desktop computer - wtr	(\$405)	0.00%	0	
52	141503	Mainframe computer - wtr	(\$2,739)	0.00%	0	
53	141504	Mini computer - wtr	(\$22,943)	0.00%	0	
54	141602	Comp. system cost - wtr	\$27,423	0.00%	0	
55	141603	Micro system cost - wtr	(\$1,417)	0.00%	0	
56	141501	Computer Hardware	(\$18)	0.00%	0	
57	141299	Utility Plant Clearing	(\$0)	0.00%	0	
58	141399	Building and Equipment Clearing	\$0	0.00%	0	
59	141233	Service Lines	(\$120)	2.00%	(2)	
60	141699	Computer Clearing	\$0	0.00%	0	
62	141601	Computer Software	(\$2,667)	0.00%	0	
63	141231	Dist Resv and Standpipes	\$0	2.00%	0	
64	141232	Trans and Distr Mains	\$0	1.00%	0	
65	141293	Plt. held for future use	\$0	0.00%	0	
66	141205	Struct and Improv Water Treat Plt	\$0	2.00%	0	
67	141230	Water Treatment Equipment	\$0	2.50%	0	
68	141226	Power Generation Equipment	\$298,745	10.00%	29,875	
69	113101		\$0	0.00%	0	
70		Pro forma plant additions	\$0	0.00%	0	
71		Total plant in service (Sum of L1 thru L64)	\$125,075,600		\$3,442,879	2.75% [4]

[1] Sun Exhibit I, Schedule 2-1(b)(1), Column (d).

[2] Depreciation rates approved in Docket No. W-354, Sub 344.

[3] Column (a) multiplied by Column (b).

[4] Column (c) divided by Column (a), Line 71.

CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 400

CALCULATION OF DIRECT PLANT**DEPRECIATION EXPENSE**

For The Test Year Ended March 31, 2024

Public Staff WS P Exhibit 1
Schedule 3-17(c)(1)**BF/FH/TC WATER OPERATIONS**

Line No.	New Account No.	tem	Plant In Service (a)	Depreciation Rate (b)	Annual Depreciation (c)	Composite Rate (d)
1	141201	Organization	\$79,800	2.50%	\$1,995	
2	141202	Franchises	\$51,240	2.50%	1,281	
3	141501	Computer Hardware	(\$4)	16.67%	(1)	
4	141502	Desktop/Laptop Computers	(\$82)	16.67%	(14)	
5	141601	Computer Software	(\$537)	0.00%	0	
6	141101	Land & land rights gen. plt.	\$0	0.00%	0	
7	141204	Struct & improv. src. supply	\$226,207	2.00%	4,524	
8	141205	Struct & improv. wtr. trt. plt.	\$148,430	2.00%	2,969	
9	141206	Struct & improv. trans. dist.	\$461	2.00%	9	
10	141203	Struct & improv. gen. plt.	\$2,611	2.00%	52	
11	141221	Collecting reservoirs	\$0	2.00%	0	
12	141223	Wells & springs	\$518,518	2.00%	10,370	
13	141224	Infiltration gallery		2.50%	0	
14	141225	Supply mains	\$12,113	1.00%	121	
15	141226	Power generation equip.		10.00%	0	
16	141227	Electric pump equip. src. plt.	\$67,316	14.29%	9,619	
17	141228	Electric pump equip. wtp.	\$410,965	3.33%	13,685	
18	141229	Electric pump equip. trans.	\$66,865	14.29%	9,555	
19	141230	Water treatment equip.	\$157,395	2.50%	3,935	
20	141231	Dist. resv. & standpipes	\$2,723,722	2.00%	54,474	
21	141232	Trans. & distr. mains	\$2,098,539	1.00%	20,985	
22	141233	Service lines	\$874,073	2.00%	17,481	
23	141234	Meters	\$596,279	3.33%	19,856	
24	141235	Meter installations	\$186,239	3.33%	6,202	
25	141236	Hydrants	\$282,685	2.50%	7,067	
26	141237	Backflow prevention devic.	\$193	10.00%	19	
27	141268	Other plt. & misc. equip. src. su.		2.50%	0	
28	141269	Other plt. & misc. equip. wtp.	\$0	2.50%	0	
29	141220	Office struct & improv.	\$24,979	10.00%	2,498	
30	141303	Office furn. & equip.	\$2,993	10.00%	299	
31	141305	Stores equipment	\$373	3.33%	12	
32	141308	Tool shop & misc. equip.	\$103,034	5.00%	5,152	
33	141306	Laboratory equipment	\$14,883	10.00%	1,488	
34	141309	Power operated equip.	\$14,238	10.00%	1,424	
35	141310	Communication equip.	\$83,945	10.00%	8,394	
36	141311	Misc. equipment	\$620	3.33%	21	
37	141278	Water plant allocated		6.67%	0	
38	141271	Other tangible plt. water		2.50%	0	
39	141401	Transportation equip.	(\$26)	20.00%	(5)	
40	141503	Mainframe computer - wtr	(\$552)	0.00%	0	
41	141504	Mini computer - wtr	(\$3,474)	0.00%	0	
42	141602	Comp. system cost - wtr	(\$16,431)	0.00%	0	
43	141603	Micro system cost - wtr	(\$285)	0.00%	0	
44	141293	Plt. held for future use		0.00%	0	
45	141699	Computer Clearing	\$0	0.00%	0	
46	141299	Utility Plant Clearing	\$0	0.00%	0	
47	141102	Land & land rights pump	\$0	0.00%	0	
48	141399	Building and Equipment Clearing	\$0	0.00%	0	
49	Total plant in service (Sum of L1 thru L45)		<u>\$8,727,325</u>		<u>\$203,467</u>	<u>2.33%</u> [4]

[1] Sun Exhibit I, Schedule 2-1(c)(1), Column (d)

[2] Depreciation rates approved in Docket No. W-354, Sub 344.

[3] Column (a) multiplied by Column (b).

[4] Column (c) divided by Column (a), Line 49.

CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 400

CALCULATION OF DIRECT PLANT**DEPRECIATION EXPENSE**

For The Test Year Ended March 31, 2024

Public Staff WS P Exhibit 1
Schedule 3-17(d)(1)**BF/FH SEWER OPERATIONS**

Line No.	New Account No.	tem	Plant In Service (a)	Depreciation Rate (b)	Annual Depreciation (c)	Composite Rate (d)
1	141201	Organization	\$14,682	2.50%	\$367	
2	141202	Franchises	\$41,938	2.50%	1,048	
3	141203	Struct and Improv General Plant	\$285,393	2.00%	5,708	
4	141207	Struct and Improv Collect Plant	\$150	0.00%	0	
5	141208	Struct and Improv Pump Plant	\$1,693,476	2.00%	33,870	
6	141209	Struct and Improv Treatment Plant	\$1,848,356	2.50%	46,209	
7	141211	Struct and Improv Reclaim Wtr Dist	\$2,477	2.50%	62	
8	141220	Struct and Improv Office	\$74,442	10.00%	7,444	
9	141227	Electric Pump Equip Src Pump	(\$2,538)	0.00%	0	
10	141230	Water Treatment Equipment	\$944,752	0.00%	0	
11	141231	Dist Resv and Standpipes	\$0	2.00%	0	
12	141232	Trans and Distr Mains	\$0	1.00%	0	
13	141239	Power Gen Equip Pump Plt	\$112,594	10.00%	11,259	
14	141241	Sewer Force Main	\$237,067	1.33%	3,153	
15	141242	Sewer Gravity Main	\$6,234,925	1.00%	62,349	
16	141243	Manholes	\$53,112	1.00%	531	
17	141244	Special Collection Structures	\$775	2.00%	16	
18	141245	Service to Customers	\$339,216	1.33%	4,512	
19	141246	Flow Measure Devices	\$17,972	4.00%	719	
20	141249	Pumping Equip Pump Plt	\$837,326	14.29%	119,654	
21	141250	Pumping Equip Reclaim WTP	\$105,260	14.29%	15,042	
22	141252	Treat/Disp Equip Lagoon	\$56	2.50%	1	
23	141253	Treat/Disp Equip Trt Plt	\$2,974,153	2.50%	74,354	
24	141255	Plant Sewers Treatment Plt	\$400,332	2.50%	10,008	
25	141257	Outfall Lines	\$84,313	1.00%	843	
26	141263	Reuse Dist Reservoirs	\$2,763	2.00%	55	
27	141264	Reuse Transmission and Dist	\$2,845	2.00%	57	
28	141271	Other Tangible Plant	\$79,334	2.50%	1,983	
29	141272	Other Plant Collection	(\$224)	2.00%	(4)	
30	141273	Other Plant Pump	\$3,442	2.50%	86	
31	141275	Other Plant Reclaim Water Trt	\$13,511	2.50%	338	
32	141299	Utility Plant Clearing	(\$0)	0.00%	0	
33	141303	Office Furniture	\$316	10.00%	32	
34	141305	Stores Equipment	\$2,808	3.33%	94	
35	141306	Lab Equipment	\$6,734	10.00%	673	
36	141308	Tool Shop Equipment	\$21,936	5.00%	1,097	
37	141309	Power Operated Equipment	\$54,905	10.00%	5,491	
38	141310	Communications Equipment	\$65,620	10.00%	6,562	
39	141311	Misc Equipment	\$71,073	3.33%	2,367	
40	141399	Building and Equipment Clearing	\$0	0.00%	0	
41	141401	Vehicles	(\$26)	0.00%	0	
42	141501	Computer Hardware	(\$4)	16.67%	(1)	
43	141502	Desktop/Laptop Computers	(\$83)	0.00%	0	
44	141503	Mainframe Computers	(\$565)	0.00%	0	
45	141504	Mini Comp Wtr	(\$5,283)	0.00%	0	
46	141601	Computer Software	(\$550)	0.00%	0	
47	141602	Comp Systems	(\$16,819)	0.00%	0	
48	141603	Micro Systems	(\$292)	0.00%	0	
49	141699	Computer Clearing	\$0	0.00%	0	
50	141251	Pumping Equip Rcl Wtr Dist	\$0	14.29%	0	
51	141254	Treat/Disp Equip Rclm Wtr	\$0	2.50%	0	
52						
53		Total plant in service (Sum of L1 thru L57)	\$16 601 669		\$415 979	2.51% [4]

[1] Sun Exhibit I, Schedule 2-1(d)(1), Column (d).

[2] Depreciation rates approved in Docket No. W-354, Sub 344.

[3] Column (a) multiplied by Column (b).

[4] Column (c) divided by Column (a), Line 53.

CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 400

**CALCULATION OF DIRECT PLANT
DEPRECIATION EXPENSE**

For The Test Year Ended March 31, 2025

Public Staff WS P Exhibit 1

Schedule 3-18(a)(2)

CWSNC WATER OPERATIONS

Line No.	New Account No.	Item	Plant In Service (a)	Depreciation Rate (b)	Annual Depreciation [3] (c)	Composite Rate (d)
1	141201	Organization	\$410,888	2.50%	\$10,272	
2	141202	Franchises	\$140,283	2.50%	3,507	
3	141102	Land & land rights pump	\$0	0.00%	0	
4	141103	Land and Rights Water	\$0	0.00%	0	
5	141104	Land and Rights Trans	\$0	0.00%	0	
6	141101	Land & land rights gen. plt.	\$150,596	0.00%	0	
7	141204	Struct & improv. src. supply	\$5,861,208	2.00%	117,224	
8	141205	Struct & improv. wtr. trt. plt.	\$1,714,513	2.00%	34,290	
9	141206	Struct & improv. trans. dist.	\$304,973	2.00%	6,099	
10	141203	Struct & improv. gen. plt.	\$453,704	2.00%	9,074	
11	141221	Collecting reservoirs	\$732,382	2.00%	14,648	
12	141223	Wells & springs	\$16,462,516	2.00%	329,250	
13	141224	Infiltration gallery	\$45,185	2.50%	1,130	
14	141225	Supply mains	\$1,050,626	1.00%	10,506	
15	141226	Power generation equip.	\$168,796	10.00%	16,880	
16	141227	Electric pump equip. src. plt.	\$3,139,597	14.29%	448,648	
17	141228	Electric pump equip. wtp.	\$9,768,210	3.33%	325,281	
18	141229	Electric pump equip. trans.	\$5,007,273	14.29%	715,539	
19	141230	Water treatment equip.	\$6,655,125	2.50%	166,378	
20	141231	Dist. resv. & standpipes	\$8,528,798	2.00%	170,576	
21	141232	Trans. & distr. mains	\$41,763,038	1.00%	417,630	
22	141233	Service lines	\$14,950,351	2.00%	299,007	
23	141234	Meters	\$11,683,161	3.33%	389,049	
24	141235	Meter installations	\$2,095,782	3.33%	69,790	
25	141236	Hydrants	\$1,556,256	2.50%	38,906	
26	141237	Backflow prevention devic.	\$64,450	10.00%	6,445	
27	141268	Other plt. & misc. equip. src. su.	\$0	2.50%	0	
28	141269	Other plt. & misc. equip. wtp.	\$23,372	2.50%	584	
29	141220	Office struct & improv.	\$320,359	10.00%	32,036	
30	141303	Office furn. & equip.	\$80,259	10.00%	8,026	
31	141305	Stores equipment	\$21,679	3.33%	722	
32	141308	Tool shop & misc. equip.	\$523,449	5.00%	26,172	
33	141306	Laboratory equipment	\$70,200	10.00%	7,020	
34	141309	Power operated equip.	\$383,301	10.00%	38,330	
35	141310	Communication equip.	\$1,210,877	10.00%	121,088	
36	141311	Misc. equipment	\$218,970	3.33%	7,292	
37	141278	Water plant allocated	\$207,809	6.67%	13,861	
38	141271	Other tangible plt. water	\$11,508	2.50%	288	
39	141248	Receiving Wells	\$176,603	2.00%	3,532	
40	141401	Transportation equip.	\$306,968	20.00%	61,394	
41	141503	Mainframe computer - wtr	(\$4,591)	0.00%	0	
42	141504	Mini computer - wtr	(\$31,950)	0.00%	0	
43	141602	Comp. system cost - wtr	(\$136,755)	0.00%	0	
44	141603	Micro system cost - wtr	(\$2,375)	0.00%	0	
45	141255	Plant Sewers Treatment Plt	\$0	2.50%	0	
46	141299	Utility Plant Clearing	(\$0)	0.00%	0	
47	141699	Computer Clearing	\$0	0.00%	0	
48	141601	Computer Software	(\$4,470)	0.00%	0	
49	141501	Computer Hardware	(\$30)	0.00%	0	
50	141502	Desktop/Laptop Computers	(\$679)	0.00%	0	
51	141293	Plant Held for Future Use	\$0	0.00%	0	
52	141399	Building and Equipment Clearing	\$0	0.00%	0	
53		Pro forma plant additions		0.00%	0	
54		Total plant in service (Sum of L1 thru L51)	<u>\$136,082,214</u>		<u>\$3,920,474</u>	<u>2.88%</u> [4]

[1] Sun Exhibit I, Schedule 2-1(a)(1), Column (d).

[2] Depreciation rates approved in Docket No. W-354, Sub 344.

[3] Column (a) multiplied by Column (b).

[4] Column (c) divided by Column (a), Line 54.

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CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 400

CALCULATION OF DIRECT PLANT**DEPRECIATION EXPENSE**

For The Test Year Ended March 31, 2025

Public Staff WS P Exhibit 1
Schedule 3-18(b)(2)**CWSNC SEWER OPERATIONS**

Line No.	New Account No.	tem	Plant In Service (a)	Depreciation Rate (b)	Annual Depreciation (c)	Composite Rate (d)
1	141201	Organization	\$883,492	2.50%	\$22,087	
2	141202	Franchises intang. plt.	\$127,476	2.50%	3,187	
3	141107	Land and Rights Treatment	\$0	0.00%	0	
4	141108	Land and Rights Reclaim	\$0	0.00%	0	
5	141101	Land & land rights gen. plt.	\$0	0.00%	0	
6	141207	Struct/improv. coll. plt.	\$116,999	2.00%	2,340	
7	141208	Struct/improv. pump plt. ls.	\$13,570,552	2.00%	271,411	
8	141209	Struct/improv. treat. plt.	\$32,081,297	2.50%	802,032	
9	141210	Struct/improv. reclaim. wtp.	\$2,586	2.50%	65	
10	141211	Struct/improv. reclaim. wtr.	\$180,917	2.50%	4,523	
11	141203	Struct/improv. gen. plt.	\$1,764,447	2.00%	35,289	
12	141238	Power gen. equip. coll. plt.	\$107,623	10.00%	10,762	
13	141239	Power gen. equip. pump plt.	\$53,611	10.00%	5,361	
14	141240	Power gen. equip. treat. plt.	\$328,260	10.00%	32,826	
15	141241	Sewer force main/serv. lin.	\$4,511,049	1.33%	59,997	
16	141242	Sewer gravity main	\$22,083,999	1.00%	220,840	
17	141243	Manholes	\$1,521,696	1.00%	15,217	
18	141244	Special coll. structures	\$7,594	2.00%	152	
19	141245	Services to customers	\$2,249,446	1.33%	29,918	
20	141246	Flow measure devices	\$159,472	4.00%	6,379	
21	141247	Flow measure install	\$1,146	4.00%	46	
22	141248	Receiving wells	\$305,924	2.00%	6,118	
23	141249	Pumping equipment pump plt.	\$5,493,869	14.29%	785,074	
24	141250	Pumping equipment reclaim.	\$40,893	14.29%	5,844	
25	141251	Pumping equipment rcl. wtr.	\$91,384	14.29%	13,059	
26	141252	Treat./disp. equip. lagoon	\$608,810	2.50%	15,220	
27	141253	Treat./disp. equip. trt. plt.	\$21,497,146	2.50%	537,429	
28	141254	Treat./disp. equip. rct. wtp.	\$37,592	2.50%	940	
29	141255	Plant sewers treat. plt.	\$18,096,372	2.50%	452,409	
30	141256	Plant sewers reclaim wtp.	\$8,438	2.50%	211	
31	141257	Outfall lines	\$728,340	1.00%	7,283	
32	141271	Other plt. tangible	\$19,930	2.50%	498	
33	141272	Other plt. collection	\$11,813	2.00%	236	
34	141273	Other plt. pump	\$473,696	2.50%	11,842	
35	141274	Other plt. treatment	\$367,031	2.50%	9,176	
36	141275	Other plt. reclaim wtr. trt.	\$0	2.50%	0	
37	141276	Other plt. reclaim wtr. dis.	\$460	2.50%	11	
38	141220	Office struct & improv.	\$52,857	10.00%	5,286	
39	141303	Office furn. & equip.	\$43,408	10.00%	4,341	
40	141305	Stores equipment	\$9,334	3.33%	311	
41	141308	Tool shop & misc. equip.	\$234,001	5.00%	11,700	
42	141306	Laboratory equipment	\$165,714	10.00%	16,571	
43	141309	Power operated equip.	\$515,963	10.00%	51,596	
44	141310	Communication equip.	\$113,829	10.00%	11,383	
45	141311	Misc equip. sewer	\$78,546	3.33%	2,616	
46	141278	Sewer plant allocated	\$526,952	6.67%	35,148	
47	0	Other tangible plt. sewer	\$0	2.50%	0	
48	141263	Reuse dist. reservoirs	\$3,560	2.00%	71	
49	141264	Reuse transmission & dist.	\$138,530	2.00%	2,771	
50	141401	Transportation equip.	\$183,139	20.00%	36,628	
51	141502	Desktop computer - wtr	(\$405)	0.00%	0	
52	141503	Mainframe computer - wtr	(\$2,739)	0.00%	0	
53	141504	Mini computer - wtr	(\$22,943)	0.00%	0	
54	141602	Comp. system cost - wtr	\$27,423	0.00%	0	
55	141603	Micro system cost - wtr	(\$1,417)	0.00%	0	
56	141501	Computer Hardware	(\$18)	0.00%	0	
57	141299	Utility Plant Clearing	(\$0)	0.00%	0	
58	141399	Building and Equipment Clearing	\$0	0.00%	0	
59	141233	Service Lines	(\$120)	2.00%	(2)	
60	141699	Computer Clearing	\$0	0.00%	0	
62	141601	Computer Software	(\$2,667)	0.00%	0	
63	141231	Dist Resv and Standpipes	\$0	2.00%	0	
64	141232	Trans and Distr Mains	\$0	1.00%	0	
65	141293	Plt. held for future use	\$0	0.00%	0	
66	141205	Struct and Improv Water Treat Plt	\$0	2.00%	0	
67	141230	Water Treatment Equipment	\$0	2.50%	0	
68	141226	Power Generation Equipment	\$298,745	10.00%	29,875	
69	113101		\$0	0.00%	0	
70		Pro forma plant additions	\$0	0.00%	0	
71		Total plant in service (Sum of L1 thru L64)	\$129,895,053		\$3,576,077	2.75% [4]

[1] Sun Exhibit I, Schedule 2-1(b)(1), Column (d).

[2] Depreciation rates approved in Docket No. W-354, Sub 344.

[3] Column (a) multiplied by Column (b).

[4] Column (c) divided by Column (a), Line 71.

CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 400

CALCULATION OF DIRECT PLANT**DEPRECIATION EXPENSE**

For The Test Year Ended March 31, 2025

Public Staff WS P Exhibit 1
Schedule 3-18(c)(2)**BF/FH/TC WATER OPERATIONS**

Line No.	New Account No.	tem	Plant In Service (a)	Depreciation Rate (b)	Annual Depreciation (c)	Composite Rate (d)
1	141201	Organization	\$79,800	2.50%	\$1,995	
2	141202	Franchises	\$51,240	2.50%	1,281	
3	141501	Computer Hardware	(\$4)	16.67%	(1)	
4	141502	Desktop/Laptop Computers	(\$82)	16.67%	(14)	
5	141601	Computer Software	(\$537)	0.00%	0	
6	141101	Land & land rights gen. plt.	\$0	0.00%	0	
7	141204	Struct & improv. src. supply	\$305,575	2.00%	6,112	
8	141205	Struct & improv. wtr. trt. plt.	\$149,576	2.00%	2,992	
9	141206	Struct & improv. trans. dist.	\$461	2.00%	9	
10	141203	Struct & improv. gen. plt.	\$2,979	2.00%	60	
11	141221	Collecting reservoirs	\$0	2.00%	0	
12	141223	Wells & springs	\$526,521	2.00%	10,530	
13	141224	Infiltration gallery		2.50%	0	
14	141225	Supply mains	\$13,231	1.00%	132	
15	141226	Power generation equip.		10.00%	0	
16	141227	Electric pump equip. src. plt.	\$71,374	14.29%	10,199	
17	141228	Electric pump equip. wtp.	\$421,715	3.33%	14,043	
18	141229	Electric pump equip. trans.	\$70,718	14.29%	10,106	
19	141230	Water treatment equip.	\$162,094	2.50%	4,052	
20	141231	Dist. resv. & standpipes	\$2,746,639	2.00%	54,933	
21	141232	Trans. & distr. mains	\$2,131,606	1.00%	21,316	
22	141233	Service lines	\$874,073	2.00%	17,481	
23	141234	Meters	\$1,255,990	3.33%	41,824	
24	141235	Meter installations	\$186,239	3.33%	6,202	
25	141236	Hydrants	\$286,412	2.50%	7,160	
26	141237	Backflow prevention devic.	\$234	10.00%	23	
27	141268	Other plt. & misc. equip. src. su.		2.50%	0	
28	141269	Other plt. & misc. equip. wtp.	\$0	2.50%	0	
29	141220	Office struct & improv.	\$24,979	10.00%	2,498	
30	141303	Office furn. & equip.	\$2,993	10.00%	299	
31	141305	Stores equipment	\$398	3.33%	13	
32	141308	Tool shop & misc. equip.	\$103,686	5.00%	5,184	
33	141306	Laboratory equipment	\$15,227	10.00%	1,523	
34	141309	Power operated equip.	\$15,185	10.00%	1,518	
35	141310	Communication equip.	\$90,000	10.00%	9,000	
36	141311	Misc. equipment	\$711	3.33%	24	
37	141278	Water plant allocated		6.67%	0	
38	141271	Other tangible plt. water		2.50%	0	
39	141401	Transportation equip.	(\$26)	20.00%	(5)	
40	141503	Mainframe computer - wtr	(\$552)	0.00%	0	
41	141504	Mini computer - wtr	(\$3,474)	0.00%	0	
42	141602	Comp. system cost - wtr	(\$16,431)	0.00%	0	
43	141603	Micro system cost - wtr	(\$285)	0.00%	0	
44	141293	Plt. held for future use		0.00%	0	
45	141699	Computer Clearing	\$0	0.00%	0	
46	141299	Utility Plant Clearing	\$0	0.00%	0	
47	141102	Land & land rights pump	\$0	0.00%	0	
48	141399	Building and Equipment Clearing	\$0	0.00%	0	
49	Total plant in service (Sum of L1 thru L45)		\$9,568,266		\$230,489	2.41% [4]

[1] Sun Exhibit I, Schedule 2-1(c)(1), Column (d)

[2] Depreciation rates approved in Docket No. W-354, Sub 344.

[3] Column (a) multiplied by Column (b).

[4] Column (c) divided by Column (a), Line 49.

CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 400

CALCULATION OF DIRECT PLANT**DEPRECIATION EXPENSE**

For The Test Year Ended March 31, 2025

Public Staff WS P Exhibit 1
Schedule 3-18(d)(2)**BF/FH SEWER OPERATIONS**

Line No.	New Account No.	tem	Plant In Service (a)	Depreciation Rate (b)	Annual Depreciation (c)	Composite Rate (d)
1	141201	Organization	\$14,682	2.50%	\$367	
2	141202	Franchises	\$41,938	2.50%	1,048	
3	141203	Struct and Improv General Plant	\$303,694	2.00%	6,074	
4	141207	Struct and Improv Collect Plant	\$150	0.00%	0	
5	141208	Struct and Improv Pump Plant	\$2,152,738	2.00%	43,055	
6	141209	Struct and Improv Treatment Plant	\$7,044,923	2.50%	176,123	
7	141211	Struct and Improv Reclaim Wtr Dist	\$2,477	2.50%	62	
8	141220	Struct and Improv Office	\$74,442	10.00%	7,444	
9	141227	Electric Pump Equip Src Pump	(\$2,538)	0.00%	0	
10	141230	Water Treatment Equipment	\$944,752	0.00%	0	
11	141231	Dist Resv and Standpipes	\$0	2.00%	0	
12	141232	Trans and Distr Mains	\$0	1.00%	0	
13	141239	Power Gen Equip Pump Plt	\$112,713	10.00%	11,271	
14	141241	Sewer Force Main	\$247,128	1.33%	3,287	
15	141242	Sewer Gravity Main	\$6,234,925	1.00%	62,349	
16	141243	Manholes	\$53,112	1.00%	531	
17	141244	Special Collection Structures	\$775	2.00%	16	
18	141245	Service to Customers	\$339,216	1.33%	4,512	
19	141246	Flow Measure Devices	\$18,137	4.00%	725	
20	141249	Pumping Equip Pump Plt	\$847,899	14.29%	121,165	
21	141250	Pumping Equip Reclaim WTP	\$114,301	14.29%	16,334	
22	141252	Treat/Disp Equip Lagoon	\$56	2.50%	1	
23	141253	Treat/Disp Equip Trt Plt	\$2,998,959	2.50%	74,974	
24	141255	Plant Sewers Treatment Plt	\$407,212	2.50%	10,180	
25	141257	Outfall Lines	\$93,926	1.00%	939	
26	141263	Reuse Dist Reservoirs	\$2,763	2.00%	55	
27	141264	Reuse Transmission and Dist	\$3,198	2.00%	64	
28	141271	Other Tangible Plant	\$79,334	2.50%	1,983	
29	141272	Other Plant Collection	(\$224)	2.00%	(4)	
30	141273	Other Plant Pump	\$3,442	2.50%	86	
31	141275	Other Plant Reclaim Water Trt	\$14,345	2.50%	359	
32	141299	Utility Plant Clearing	(\$0)	0.00%	0	
33	141303	Office Furniture	\$316	10.00%	32	
34	141305	Stores Equipment	\$2,818	3.33%	94	
35	141306	Lab Equipment	\$6,734	10.00%	673	
36	141308	Tool Shop Equipment	\$22,525	5.00%	1,126	
37	141309	Power Operated Equipment	\$55,879	10.00%	5,588	
38	141310	Communications Equipment	\$72,881	10.00%	7,288	
39	141311	Misc Equipment	\$73,149	3.33%	2,436	
40	141399	Building and Equipment Clearing	\$0	0.00%	0	
41	141401	Vehicles	(\$26)	0.00%	0	
42	141501	Computer Hardware	(\$4)	16.67%	(1)	
43	141502	Desktop/Laptop Computers	(\$83)	0.00%	0	
44	141503	Mainframe Computers	(\$565)	0.00%	0	
45	141504	Mini Comp Wtr	(\$5,283)	0.00%	0	
46	141601	Computer Software	(\$550)	0.00%	0	
47	141602	Comp Systems	(\$16,819)	0.00%	0	
48	141603	Micro Systems	(\$292)	0.00%	0	
49	141699	Computer Clearing	\$0	0.00%	0	
50	141251	Pumping Equip Rcl Wtr Dist	\$0	14.29%	0	
51	141254	Treat/Disp Equip Rclm Wtr	\$0	2.50%	0	
52						
53		Total plant in service (Sum of L1 thru L57)	\$22 359 157		\$560 236	2.51% [4]

[1] Sun Exhibit I, Schedule 2-1(d)(1), Column (d).

[2] Depreciation rates approved in Docket No. W-354, Sub 344.

[3] Column (a) multiplied by Column (b).

[4] Column (c) divided by Column (a), Line 53.

CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 400

**CALCULATION OF DIRECT PLANT
DEPRECIATION EXPENSE**

For The Test Year Ended March 31, 2026

Public Staff WS P Exhibit 1
Schedule 3-18(a)(3)

CWSNC WATER OPERATIONS

Line No.	New Account No.	Item	Plant In Service [1] (a)	Depreciation Rate [2] (b)	Annual Depreciation [3] (c)	Composite Rate (d)
1	141201	Organization	\$410,888	2.50%	\$10,272	
2	141202	Franchises	\$140,283	2.50%	3,507	
3	141102	Land & land rights pump	\$0	0.00%	0	
4	141103	Land and Rights Water	\$0	0.00%	0	
5	141104	Land and Rights Trans	\$0	0.00%	0	
6	141101	Land & land rights gen. plt.	\$150,596	0.00%	0	
7	141204	Struct & improv. src. supply	\$5,898,913	2.00%	117,978	
8	141205	Struct & improv. wtr. trt. plt.	\$1,768,366	2.00%	35,367	
9	141206	Struct & improv. trans. dist.	\$312,447	2.00%	6,249	
10	141203	Struct & improv. gen. plt.	\$469,529	2.00%	9,391	
11	141221	Collecting reservoirs	\$732,382	2.00%	14,648	
12	141223	Wells & springs	\$16,523,218	2.00%	330,464	
13	141224	Infiltration gallery	\$45,185	2.50%	1,130	
14	141225	Supply mains	\$1,149,063	1.00%	11,491	
15	141226	Power generation equip.	\$389,984	10.00%	38,998	
16	141227	Electric pump equip. src. plt.	\$3,198,362	14.29%	457,046	
17	141228	Electric pump equip. wtp.	\$10,042,300	3.33%	334,409	
18	141229	Electric pump equip. trans.	\$5,117,802	14.29%	731,334	
19	141230	Water treatment equip.	\$6,829,903	2.50%	170,748	
20	141231	Dist. resv. & standpipes	\$8,664,659	2.00%	173,293	
21	141232	Trans. & distr. mains	\$43,612,197	1.00%	436,122	
22	141233	Service lines	\$14,950,351	2.00%	299,007	
23	141234	Meters	\$11,683,161	3.33%	389,049	
24	141235	Meter installations	\$2,095,782	3.33%	69,790	
25	141236	Hydrants	\$1,607,887	2.50%	40,197	
26	141237	Backflow prevention devic.	\$66,002	10.00%	6,600	
27	141268	Other plt. & misc. equip. src. su.	\$0	2.50%	0	
28	141269	Other plt. & misc. equip. wtp.	\$23,372	2.50%	584	
29	141220	Office struct & improv.	\$320,359	10.00%	32,036	
30	141303	Office furn. & equip.	\$80,259	10.00%	8,026	
31	141305	Stores equipment	\$24,490	3.33%	816	
32	141308	Tool shop & misc. equip.	\$529,703	5.00%	26,485	
33	141306	Laboratory equipment	\$71,671	10.00%	7,167	
34	141309	Power operated equip.	\$389,154	10.00%	38,915	
35	141310	Communication equip.	\$1,455,884	10.00%	145,588	
36	141311	Misc. equipment	\$224,682	3.33%	7,482	
37	141278	Water plant allocated	\$207,809	6.67%	13,861	
38	141271	Other tangible plt. water	\$11,508	2.50%	288	
39	141248	Receiving Wells	\$176,603	2.00%	3,532	
40	141401	Transportation equip.	\$306,968	20.00%	61,394	
41	141503	Mainframe computer - wtr	(\$4,591)	0.00%	0	
42	141504	Mini computer - wtr	(\$31,950)	0.00%	0	
43	141602	Comp. system cost - wtr	(\$136,755)	0.00%	0	
44	141603	Micro system cost - wtr	(\$2,375)	0.00%	0	
45	141255	Plant Sewers Treatment Plt	\$0	2.50%	0	
46	141299	Utility Plant Clearing	(\$0)	0.00%	0	
47	141699	Computer Clearing	\$0	0.00%	0	
48	141601	Computer Software	(\$4,470)	0.00%	0	
49	141501	Computer Hardware	(\$30)	0.00%	0	
50	141502	Desktop/Laptop Computers	(\$679)	0.00%	0	
51	141293	Plant Held for Future Use	\$0	0.00%	0	
52	141399	Building and Equipment Clearing	\$0	0.00%	0	
53		Pro forma plant additions		0.00%	0	
54		Total plant in service (Sum of L1 thru L51)	\$139,500,875		\$4,033,264	2.89% [4]

[1] Public Staff WSIP Exhibit 1, Schedule 2-1(a)(1), Column (d).

[2] Depreciation rates approved in Docket No. W-354, Sub 344.

[3] Column (a) multiplied by Column (b).

[4] Column (c) divided by Column (a), Line 54.

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CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 400

CALCULATION OF DIRECT PLANT**DEPRECIATION EXPENSE**

For The Test Year Ended March 31, 2026

Public Staff WS P Exhibit 1
Schedule 3-18(b)(3)**CWSNC SEWER OPERATIONS**

Line No.	New Account No.	tem	Plant In Service (a)	Depreciation Rate [1] (b)	Annual Depreciation [3] (c)	Composite Rate (d)
1	141201	Organization	\$883,492	2.50%	\$22,087	
2	141202	Franchises intang. plt.	\$127,476	2.50%	3,187	
3	141107	Land and Rights Treatment	\$0	0.00%	0	
4	141108	Land and Rights Reclaim	\$0	0.00%	0	
5	141101	Land & land rights gen. plt.	\$0	0.00%	0	
6	141207	Struct/improv. coll. plt.	\$121,697	2.00%	2,434	
7	141208	Struct/improv. pump plt. ls.	\$13,933,467	2.00%	278,669	
8	141209	Struct/improv. treat. plt.	\$46,985,052	2.50%	1,174,626	
9	141210	Struct/improv. reclaim. wtp.	\$2,586	2.50%	65	
10	141211	Struct/improv. reclaim. wtr.	\$181,136	2.50%	4,528	
11	141203	Struct/improv. gen. plt.	\$1,793,048	2.00%	35,861	
12	141238	Power gen. equip. coll. plt.	\$107,623	10.00%	10,762	
13	141239	Power gen. equip. pump plt.	\$53,746	10.00%	5,375	
14	141240	Power gen. equip. treat. plt.	\$431,780	10.00%	43,178	
15	141241	Sewer force main/serv. lin.	\$4,564,395	1.33%	60,706	
16	141242	Sewer gravity main	\$23,064,363	1.00%	230,644	
17	141243	Manholes	\$1,521,696	1.00%	15,217	
18	141244	Special coll. structures	\$7,876	2.00%	158	
19	141245	Services to customers	\$2,249,446	1.33%	29,918	
20	141246	Flow measure devices	\$166,341	4.00%	6,654	
21	141247	Flow measure install	\$1,166	4.00%	47	
22	141248	Receiving wells	\$341,893	2.00%	6,838	
23	141249	Pumping equipment pump plt.	\$5,669,673	14.29%	810,196	
24	141250	Pumping equipment reclaim.	\$41,514	14.29%	5,932	
25	141251	Pumping equipment rcl. wtr.	\$95,349	14.29%	13,625	
26	141252	Treat./disp. equip. lagoon	\$614,451	2.50%	15,361	
27	141253	Treat./disp. equip. trt. plt.	\$21,733,875	2.50%	543,347	
28	141254	Treat./disp. equip. rct. wtp.	\$41,694	2.50%	1,042	
29	141255	Plant sewers treat. plt.	\$18,151,569	2.50%	453,789	
30	141256	Plant sewers reclaim wtp.	\$8,625	2.50%	216	
31	141257	Outfall lines	\$764,338	1.00%	7,643	
32	141271	Other plt. tangible	\$22,515	2.50%	563	
33	141272	Other plt. collection	\$11,899	2.00%	238	
34	141273	Other plt. pump	\$474,996	2.50%	11,875	
35	141274	Other plt. treatment	\$383,177	2.50%	9,579	
36	141275	Other plt. reclaim wtr. trt.	\$0	2.50%	0	
37	141276	Other plt. reclaim wtr. dis.	\$460	2.50%	11	
38	141220	Office struct & improv.	\$52,857	10.00%	5,286	
39	141303	Office furn. & equip.	\$43,408	10.00%	4,341	
40	141305	Stores equipment	\$9,946	3.33%	331	
41	141308	Tool shop & misc. equip.	\$237,724	5.00%	11,886	
42	141306	Laboratory equipment	\$168,927	10.00%	16,893	
43	141309	Power operated equip.	\$534,876	10.00%	53,488	
44	141310	Communication equip.	\$118,958	10.00%	11,896	
45	141311	Misc equip. sewer	\$84,436	3.33%	2,812	
46	141278	Sewer plant allocated	\$526,952	6.67%	35,148	
47	0	Other tangible plt. sewer	\$0	2.50%	0	
48	141263	Reuse dist. reservoirs	\$3,586	2.00%	72	
49	141264	Reuse transmission & dist.	\$147,235	2.00%	2,945	
50	141401	Transportation equip.	\$183,139	20.00%	36,628	
51	141502	Desktop computer - wtr	(\$405)	0.00%	0	
52	141503	Mainframe computer - wtr	(\$2,739)	0.00%	0	
53	141504	Mini computer - wtr	(\$22,943)	0.00%	0	
54	141602	Comp. system cost - wtr	\$27,423	0.00%	0	
55	141603	Micro system cost - wtr	(\$1,417)	0.00%	0	
56	141501	Computer Hardware	(\$18)	0.00%	0	
57	141299	Utility Plant Clearing	(\$0)	0.00%	0	
58	141399	Building and Equipment Clearing	\$0	0.00%	0	
59	141233	Service Lines	(\$120)	2.00%	(2)	
60	141699	Computer Clearing	\$0	0.00%	0	
62	141601	Computer Software	(\$2,667)	0.00%	0	
63	141231	Dist Resv and Standpipes	\$0	2.00%	0	
64	141232	Trans and Distr Mains	\$0	1.00%	0	
65	141293	Plt. held for future use	\$0	0.00%	0	
66	141205	Struct and Improv Water Treat Plt	\$0	2.00%	0	
67	141230	Water Treatment Equipment	\$0	2.50%	0	
68	141226	Power Generation Equipment	\$298,745	10.00%	29,875	
69	113101		\$0	0.00%	0	
70		Pro forma plant additions	\$0	0.00%	0	
71		Total plant in service (Sum of L1 thru L64)	\$146,960,318		\$4,015,970	2.73% [4]

[1] Public Staff W/SIP Exhibit I, Schedule 2-1(b)(1), Column (d).

[2] Depreciation rates approved in Docket No. W-354, Sub 344.

[3] Column (a) multiplied by Column (b).

[4] Column (c) divided by Column (a), Line 71.

CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 400

CALCULATION OF DIRECT PLANT**DEPRECIATION EXPENSE**

For The Test Year Ended March 31, 2026

Public Staff WS P Exhibit 1

Schedule 3-18(c) (3)

BF/FH/TC WATER OPERATIONS

Line No.	New Account No.	tem	Plant In Service (a)	Depreciation Rate [1] (b)	Annual Depreciation [2] (c)	Composite Rate (d)
1	141201	Organization	\$79,800	2.50%	\$1,995	
2	141202	Franchises	\$51,240	2.50%	1,281	
3	141501	Computer Hardware	(\$4)	16.67%	(1)	
4	141502	Desktop/Laptop Computers	(\$82)	16.67%	(14)	
5	141601	Computer Software	(\$537)	0.00%	0	
6	141101	Land & land rights gen. plt.	\$0	0.00%	0	
7	141204	Struct & improv. src. supply	\$317,165	2.00%	6,343	
8	141205	Struct & improv. wtr. trt. plt.	\$150,721	2.00%	3,014	
9	141206	Struct & improv. trans. dist.	\$461	2.00%	9	
10	141203	Struct & improv. gen. plt.	\$3,347	2.00%	67	
11	141221	Collecting reservoirs	\$0	2.00%	0	
12	141223	Wells & springs	\$534,524	2.00%	10,690	
13	141224	Infiltration gallery		2.50%	0	
14	141225	Supply mains	\$14,349	1.00%	143	
15	141226	Power generation equip.		10.00%	0	
16	141227	Electric pump equip. src. plt.	\$75,432	14.29%	10,779	
17	141228	Electric pump equip. wtp.	\$432,465	3.33%	14,401	
18	141229	Electric pump equip. trans.	\$74,571	14.29%	10,656	
19	141230	Water treatment equip.	\$166,793	2.50%	4,170	
20	141231	Dist. resv. & standpipes	\$2,769,555	2.00%	55,391	
21	141232	Trans. & distr. mains	\$2,330,122	1.00%	23,301	
22	141233	Service lines	\$874,073	2.00%	17,481	
23	141234	Meters	\$1,255,990	3.33%	41,824	
24	141235	Meter installations	\$186,239	3.33%	6,202	
25	141236	Hydrants	\$290,140	2.50%	7,253	
26	141237	Backflow prevention devic.	\$275	10.00%	28	
27	141268	Other plt. & misc. equip. src. su.		2.50%	0	
28	141269	Other plt. & misc. equip. wtp.	\$0	2.50%	0	
29	141220	Office struct & improv.	\$24,979	10.00%	2,498	
30	141303	Office furn. & equip.	\$2,993	10.00%	299	
31	141305	Stores equipment	\$423	3.33%	14	
32	141308	Tool shop & misc. equip.	\$104,338	5.00%	5,217	
33	141306	Laboratory equipment	\$15,570	10.00%	1,557	
34	141309	Power operated equip.	\$16,132	10.00%	1,613	
35	141310	Communication equip.	\$96,056	10.00%	9,606	
36	141311	Misc. equipment	\$803	3.33%	27	
37	141278	Water plant allocated		6.67%	0	
38	141271	Other tangible plt. water		2.50%	0	
39	141401	Transportation equip.	(\$26)	20.00%	(5)	
40	141503	Mainframe computer - wtr	(\$552)	0.00%	0	
41	141504	Mini computer - wtr	(\$3,474)	0.00%	0	
42	141602	Comp. system cost - wtr	(\$16,431)	0.00%	0	
43	141603	Micro system cost - wtr	(\$285)	0.00%	0	
44	141293	Plt. held for future use		0.00%	0	
45	141699	Computer Clearing	\$0	0.00%	0	
46	141299	Utility Plant Clearing	\$0	0.00%	0	
47	141102	Land & land rights pump	\$0	0.00%	0	
48	141399	Building and Equipment Clearing	\$0	0.00%	0	
49	Total plant in service (Sum of L1 thru L45)		\$9,847,166		\$235,839	2.39% [4]

[1] Public Staff WSIP Exhibit 1, Schedule 2-1(c)(1), Column (d)

[2] Depreciation rates approved in Docket No. W-354, Sub 344.

[3] Column (a) multiplied by Column (b).

[4] Column (c) divided by Column (a), Line 49.

CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 400

CALCULATION OF DIRECT PLANT**DEPRECIATION EXPENSE**

For The Test Year Ended March 31, 2026

Public Staff WS P Exhibit 1
Schedule 3-18(d)(3)**BF/FH SEWER OPERATIONS**

Line No.	New Account No.	tem	Plant In Service (a)	Depreciation Rate (b)	Annual Depreciation (c)	Composite Rate (d)
1	141201	Organization	\$14,682	2.50%	\$367	
2	141202	Franchises	\$41,938	2.50%	1,048	
3	141203	Struct and Improv General Plant	\$321,994	2.00%	6,440	
4	141207	Struct and Improv Collect Plant	\$150	0.00%	0	
5	141208	Struct and Improv Pump Plant	\$2,155,360	2.00%	43,107	
6	141209	Struct and Improv Treatment Plant	\$7,055,725	2.50%	176,393	
7	141211	Struct and Improv Reclaim Wtr Dist	\$2,477	2.50%	62	
8	141220	Struct and Improv Office	\$74,442	10.00%	7,444	
9	141227	Electric Pump Equip Src Pump	(\$2,538)	0.00%	0	
10	141230	Water Treatment Equipment	\$944,752	0.00%	0	
11	141231	Dist Resv and Standpipes	\$0	2.00%	0	
12	141232	Trans and Distr Mains	\$0	1.00%	0	
13	141239	Power Gen Equip Pump Plt	\$112,832	10.00%	11,283	
14	141241	Sewer Force Main	\$257,189	1.33%	3,421	
15	141242	Sewer Gravity Main	\$6,620,129	1.00%	66,201	
16	141243	Manholes	\$53,112	1.00%	531	
17	141244	Special Collection Structures	\$775	2.00%	16	
18	141245	Service to Customers	\$339,216	1.33%	4,512	
19	141246	Flow Measure Devices	\$18,303	4.00%	732	
20	141249	Pumping Equip Pump Plt	\$858,472	14.29%	122,676	
21	141250	Pumping Equip Reclaim WTP	\$123,342	14.29%	17,626	
22	141252	Treat/Disp Equip Lagoon	\$56	2.50%	1	
23	141253	Treat/Disp Equip Trt Plt	\$3,023,764	2.50%	75,594	
24	141255	Plant Sewers Treatment Plt	\$414,093	2.50%	10,352	
25	141257	Outfall Lines	\$103,539	1.00%	1,035	
26	141263	Reuse Dist Reservoirs	\$2,763	2.00%	55	
27	141264	Reuse Transmission and Dist	\$3,552	2.00%	71	
28	141271	Other Tangible Plant	\$79,334	2.50%	1,983	
29	141272	Other Plant Collection	(\$224)	2.00%	(4)	
30	141273	Other Plant Pump	\$3,442	2.50%	86	
31	141275	Other Plant Reclaim Water Trt	\$15,178	2.50%	379	
32	141299	Utility Plant Clearing	(\$0)	0.00%	0	
33	141303	Office Furniture	\$316	10.00%	32	
34	141305	Stores Equipment	\$2,828	3.33%	94	
35	141306	Lab Equipment	\$6,734	10.00%	673	
36	141308	Tool Shop Equipment	\$23,115	5.00%	1,156	
37	141309	Power Operated Equipment	\$56,854	10.00%	5,685	
38	141310	Communications Equipment	\$80,142	10.00%	8,014	
39	141311	Misc Equipment	\$75,225	3.33%	2,505	
40	141399	Building and Equipment Clearing	\$0	0.00%	0	
41	141401	Vehicles	(\$26)	0.00%	0	
42	141501	Computer Hardware	(\$4)	16.67%	(1)	
43	141502	Desktop/Laptop Computers	(\$83)	0.00%	0	
44	141503	Mainframe Computers	(\$565)	0.00%	0	
45	141504	Mini Comp Wtr	(\$5,283)	0.00%	0	
46	141601	Computer Software	(\$550)	0.00%	0	
47	141602	Comp Systems	(\$16,819)	0.00%	0	
48	141603	Micro Systems	(\$292)	0.00%	0	
49	141699	Computer Clearing	\$0	0.00%	0	
50	141251	Pumping Equip Rcl Wtr Dist	\$0	14.29%	0	
51	141254	Treat/Disp Equip Rclm Wtr	\$0	2.50%	0	
52						
53		Total plant in service (Sum of L1 thru L57)	\$22 859 443		\$569 569	2.49% [4]

[1] Public Staff WSIP Exhibit 1, Schedule 2-1(d)(1), Column (d).

[2] Depreciation rates approved in Docket No. W-354, Sub 344.

[3] Column (a) multiplied by Column (b).

[4] Column (c) divided by Column (a), Line 53.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO FRANCHISE TAX & OTHER TAX
For The Rate Year 1 - Rate Year 3 Ended March 31,
2024 -2026

Public Staff WSIP Exhibit 1
Schedule 3-19(a)

CWSNC WATER OPERATIONS

<u>Line No.</u>	<u>Item</u>	<u>Rate Year 1</u>	<u>Rate Year 2</u>	<u>Rate Year 3</u>
		(a)	(b)	(c)
1	FranchiseCalculation Basis per Company	<u>\$56,486 [1]</u>	<u>\$62,023 [1]</u>	<u>\$64,096 [1]</u>
2	Growth Factor per Company	9.80% [1]	3.34% [1]	3.34% [1]
3	Franchiseper Company (L1* (1+L2))	\$62,023 [1]	\$64,096 [1]	\$66,238 [1]
4	FranchiseCalculation Basis per Public Staff	\$56,486 [2]	\$56,486 [2]	\$56,486 [2]
5	Public Staff Growth Factor	0.00% [2]	0.00% [2]	0.00% [2]
6	Franchiseper Public Staff (L4*(1+L5))	<u>56,486</u>	<u>56,486</u>	<u>56,486</u>
7	Adjustment to Franchise(L6 - L3)	<u>(5,537)</u>	<u>(7,610)</u>	<u>(9,753)</u>

[1] Per examination of the company's response to accounting data requests

[2] Per Public Staff Calculation

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO FRANCHISE TAX & OTHER TAX
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 3-19(b)

CWSNC SEWER OPERATIONS

Line No.	Item	Rate Year 1	Rate Year 2	Rate Year 3
		(a)	(b)	(c)
1	FranchiseCalculation Basis per Company	\$48,172 [1]	\$52,701 [1]	\$54,065 [1]
2	Growth Factor per Company	9.40% [1]	2.59% [1]	2.59% [1]
3	Franchiseper Company (L1* (1+L2))	\$52,701 [1]	\$54,065 [1]	\$55,465 [1]
4	FranchiseCalculation Basis per Public Staff	\$48,172 [2]	\$48,172 [2]	\$48,172 [2]
5	Public Staff Growth Factor	0.00% [2]	0.00% [2]	0.00% [2]
6	Franchiseper Public Staff (L4*(1+L5))	48,172	48,172	48,172
7	Adjustment to Franchise(L6 - L3)	(4,529)	(5,893)	(7,293)

[1] Per examination of the company's response to accounting data requests

[2] Per Public Staff Calculation

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO FRANCHISE TAX & OTHER TAX
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 3-19(c)

BF/FH/TC WATER OPERATIONS

Line No.	Item	Rate Year 1 (a)	Rate Year 2 (b)	Rate Year 3 (c)
1	FranchiseCalculation Basis per Company	(\$1,321) [1]	(\$1,450) [1]	(\$1,497) [1]
2	Growth Factor per Company	9.76% [1]	3.26% [1]	3.26% [1]
3	Franchiseper Company (L1* (1+L2))	(1,450) [1]	(1,497) [1]	(1,546) [1]
4	FranchiseCalculation Basis per Public Staff	(1,321) [2]	(1,321) [2]	(1,321) [2]
5	Public Staff Growth Factor	0.00% [2]	0.00% [2]	0.00% [2]
6	Franchiseper Public Staff (L4*(1+L5))	(1,321)	(1,321)	(1,321)
7	Adjustment to Franchise(L6 - L3)	129	176	225

[1] Per examination of the company's response to accounting data requests

[2] Per Public Staff Calculation

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO FRANCHISE TAX & OTHER TAX
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 3-19(d)

BF/FH/TC SEWER OPERATIONS

Line No.	<u>Item</u>	<u>Rate Year 1</u>	<u>Rate Year 2</u>	<u>Rate Year 3</u>
		(a)	(b)	(c)
1	FranchiseCalculation Basis per Company	(\$1,352) [1]	(\$1,489) [1]	(\$1,547) [1]
2	Growth Factor per Company	10.10% [1]	3.89% [1]	3.89% [1]
3	Franchiseper Company (L1* (1+L2))	(1,489) [1]	(1,547) [1]	(1,607) [1]
4	FranchiseCalculation Basis per Public Staff	(1,352) [2]	(1,352) [2]	(1,352) [2]
5	Public Staff Growth Factor	0.00% [2]	0.00% [2]	0.00% [2]
6	Franchiseper Public Staff (L4*(1+L5))	(1,352)	(1,352)	(1,352)
7	Adjustment to Franchise(L6 - L3)	137	194	255

[1] Per examination of the company's response to accounting data requests

[2] Per Public Staff Calculation

CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 400

ADJUSTMENT TO PAYROLL TAX

For The Test Year Ended March 31, 2022

Public Staff WSIP Exhibit 1

Schedule 3-20

Line No.	Item	Base Year			
		CWSNC Water (a)	CWSNC Sewer (b)	BF/FH/TC Water (c)	BF/FH/TC Sewer (d)
1	Payroll taxes per Company	<u>\$ 302,217</u> [1]	<u>\$179,305</u> [1]	<u>\$36,311</u> [1]	<u>\$37,168</u> [1]
2	Adjustment to include company 09.19.2022 updates	2,188 [1]	2,305 [1]	262 [1]	269 [1]
3	Payroll taxes adjusted for company updates (L1 + L2)	304,405	181,610	36,573	37,437
4	Adjustments to update payroll taxes through September 30, 2021	<u>(6,480)</u>	<u>(3,866)</u>	<u>(778)</u>	<u>(797)</u>
5	Payroll taxes per Public Staff (L3 + L4)	<u><u>\$ 297,925</u></u>	<u><u>\$ 177,744</u></u>	<u><u>\$ 35,795</u></u>	<u><u>\$ 36,640</u></u>

[1] Per examination of the company's response to accounting data requests.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO PAYROLL TAX
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 3-20(a)

CWSNC WATER OPERATIONS

Line No.	Item	Rate Year 1	Rate Year 2	Rate Year 3
		(a)	(b)	(c)
1	Payroll Tax Calculation Basis per Company	\$ 304,405 [1]	\$313,537 [1]	\$322,944 [1]
2	Growth Factor per Company	3.0% [1]	3.0% [1]	3.0% [1]
3	Payroll Tax per Company (L1* (1+L2))	313,537 [1]	322,944 [1]	332,632 [1]
4	Payroll Tax Calculation Basis per Public Staff	297,925 [2]	306,863 [2]	316,069 [2]
5	Public Staff Growth Factor	3.00% [2]	3.00% [2]	3.00% [2]
6	Payroll Tax per Public Staff (L4*(1+L5))	306,863	316,069	325,551
7	Adjustment to Payroll Tax (L6 - L3)	\$ (6,675)	\$ (6,875)	\$ (7,081)

[1] Per examination of the company's response to accounting data requests.

[2] Per Public Staff calculation.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO PAYROLL TAX
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 3-20(b)

CWSNC SEWER OPERATIONS

Line No.	Item	<u>Rate Year 1</u>	<u>Rate Year 2</u>	<u>Rate Year 3</u>
		(a)	(b)	(c)
1	Payroll Tax Calculation Basis per Company	<u>\$ 181,610 [1]</u>	<u>\$187,058 [1]</u>	<u>\$192,670 [1]</u>
2	Growth Factor per Company	3.00% [1]	3.00% [1]	3.00% [1]
3	Payroll Tax per Company (L1* (1+L2))	187,058 [1]	192,670 [1]	198,450 [1]
4	Payroll Tax Calculation Basis per Public Staff	177,744 [2]	183,076 [2]	188,569 [2]
5	Public Staff Growth Factor	3.00% [2]	3.00% [2]	3.00% [2]
6	Payroll Tax per Public Staff (L4*(1+L5))	<u>183,076</u>	<u>188,569</u>	<u>194,226</u>
7	Adjustment to Payroll Tax (L6 - L3)	<u><u>\$ (3,982)</u></u>	<u><u>\$ (4,101)</u></u>	<u><u>\$ (4,224)</u></u>

[1] Per examination of the company's response to accounting data requests.

[2] Per Public Staff calculation.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO PAYROLL TAX
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 3-20(c)

BF/FH/TC WATER OPERATIONS

Line No.	Item	<u>Rate Year 1</u>	<u>Rate Year 2</u>	<u>Rate Year 3</u>
		(a)	(b)	(c)
1	Payroll Tax Calculation Basis per Company	<u>\$ 36,573 [1]</u>	<u>\$37,671 [1]</u>	<u>\$38,801 [1]</u>
2	Growth Factor per Company	3.00% [1]	3.00% [1]	3.00% [1]
3	Payroll Tax per Company (L1* (1+L2))	37,671 [1]	38,801 [1]	39,965 [1]
4	Payroll Tax Calculation Basis per Public Staff	35,795 [2]	36,869 [2]	37,975 [2]
5	Public Staff Growth Factor	3.00% [2]	3.00% [2]	3.00% [2]
6	Payroll Tax per Public Staff (L4*(1+L5))	<u>36,869</u>	<u>37,975</u>	<u>39,114</u>
7	Adjustment to Payroll Tax (L6 - L3)	<u>\$ (802)</u>	<u>\$ (826)</u>	<u>\$ (851)</u>

[1] Per examination of the company's response to accounting data requests.

[2] Per Public Staff calculation.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO PAYROLL TAX
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 3-20(d)

BF/FH/TC SEWER OPERATIONS

Line No.	<u>Item</u>	<u>Rate Year 1</u>	<u>Rate Year 2</u>	<u>Rate Year 3</u>
		(a)	(b)	(c)
1	Payroll Tax Calculation Basis per Company	\$ 37,437 [1]	\$38,560 [1]	\$39,717 [1]
2	Growth Factor per Company	3.00% [1]	3.00% [1]	3.00% [1]
3	Payroll Tax per Company (L1* (1+L2))	38,560 [1]	39,717 [1]	40,908 [1]
4	Payroll Tax Calculation Basis per Public Staff	36,640 [2]	37,739 [2]	38,871 [2]
5	Public Staff Growth Factor	3.00% [2]	3.00% [2]	3.00% [2]
6	Payroll Tax per Public Staff (L4*(1+L5))	37,739	38,871	40,038
7	Adjustment to Payroll Tax (L6 - L3)	\$ (821)	\$ (845)	\$ (870)

[1] Per examination of the company's response to accounting data requests.

[2] Per Public Staff calculation.

CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 400

ADJUSTMENT TO PROPERTY TAX

For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1

Schedule 3-21(a)

CWSNC WATER OPERATIONS

Line No.	Item	<u>Rate Year 1</u>	<u>Rate Year 2</u>	<u>Rate Year 3</u>
		(a)	(b)	(c)
1	Property Taxes Calculation Basis per Company	<u>\$135,969</u> [1]	<u>\$145,817</u> [1]	<u>\$155,440</u> [1]
2	Growth Factor per Company	7.2% [1]	6.6% [1]	5.8% [1]
3	Property Taxes per Company (L1* (1+3%))	\$145,817 [1]	\$155,440 [1]	\$164,424 [1]
4	Property Taxes Calculation Basis per Public Staff	\$135,969 [2]	\$135,969 [2]	\$135,969 [2]
5	Public Staff Growth Factor	<u>0.00%</u> [2]	<u>0.00%</u> [2]	<u>0.00%</u> [2]
6	Property Taxes per Public Staff (L4*(1+3%))	<u>135,969</u>	<u>135,969</u>	<u>135,969</u>
7	Adjustment to Property Taxes (L6 - L3)	<u>(\$9,848)</u>	<u>(\$19,471)</u>	<u>(\$28,455)</u>

[1] Per examination of the company's response to accounting data requests.

[2] Per Public Staff calculation.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO PROPERTY TAX
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 3-20(b)

CWSNC SEWER OPERATIONS

Line No.	Item	Rate Year 1	Rate Year 2	Rate Year 3
		(a)	(b)	(c)
1	Property Taxes Calculation Basis per Company	<u>\$105,629</u> [1]	<u>\$113,204</u> [1]	<u>\$125,366</u> [1]
2	Growth Factor per Company	7.17% [1]	10.74% [1]	9.32% [1]
3	Property Taxes per Company (L1* (1+3%))	113,204 [1]	125,366 [1]	137,050 [1]
4	Property Taxes Calculation Basis per Public Staff	\$105,629 [2]	\$105,629 [2]	\$105,629 [2]
5	Public Staff Growth Factor	<u>0.00%</u> [2]	<u>0.00%</u> [2]	<u>0.00%</u> [2]
6	Property Taxes per Public Staff (L4*(1+3%))	<u>105,629</u>	<u>105,629</u>	<u>105,629</u>
7	Adjustment to Property Taxes (L6 - L3)	<u>(\$7,575)</u>	<u>(\$19,736)</u>	<u>(\$31,421)</u>

[1] Per examination of the company's response to accounting data requests.

[2] Per Public Staff calculation.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO PROPERTY TAX
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 3-21(c)

BF/FH/TC WATER OPERATIONS

Line No.	Item	Rate Year 1 (a)	Rate Year 2 (b)	Rate Year 3 (c)
1	Property Taxes Calculation Basis per Company	<u>\$7,746</u> [1]	<u>\$9,798</u> [1]	<u>\$11,264</u> [1]
2	Growth Factor per Company	26.5% [1]	15.0% [1]	8.6% [1]
3	Property Taxes per Company (L1* (1+3%))	\$9,798 [1]	\$11,264 [1]	\$12,231 [1]
4	Property Taxes Calculation Basis per Public Staff	\$7,746 [2]	\$7,746 [2]	\$7,746 [2]
5	Public Staff Growth Factor	<u>0.0%</u> [2]	<u>0.0%</u> [2]	<u>0.0%</u> [2]
6	Property Taxes per Public Staff (L4*(1+3%))	<u>7,746</u>	<u>7,746</u>	<u>7,746</u>
7	Adjustment to Property Taxes (L6 - L3)	<u>(\$2,052)</u>	<u>(\$3,518)</u>	<u>(\$4,485)</u>

[1] Per examination of the company's response to accounting data requests.

[2] Per Public Staff calculation.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
ADJUSTMENT TO PROPERTY TAX
For The Rate Year 1 - Rate Year 3 Ended March 31, 2024 -2026

Public Staff WSIP Exhibit 1
Schedule 3-21(d)

BF/FH/TC SEWER OPERATIONS

Line No.	Item	Rate Year 1	Rate Year 2	Rate Year 3
		(a)	(b)	(c)
1	Property Taxes Calculation Basis per Company	<u>\$9,754</u> [1]	<u>\$10,508</u> [1]	<u>\$13,031</u> [1]
2	Growth Factor per Company	7.74% [1]	24.01% [1]	13.88% [1]
3	Property Taxes per Company (L1* (1+3%))	\$10,508 [1]	\$13,031 [1]	\$14,840 [1]
4	Property Taxes Calculation Basis per Public Staff	\$9,754 [2]	\$9,754 [2]	\$9,754 [2]
5	Public Staff Growth Factor	<u>0.00%</u> [2]	<u>0.00%</u> [2]	<u>0.00%</u> [2]
6	Property Taxes per Public Staff (L4*(1+3%))	<u>9,754</u>	<u>9,754</u>	<u>9,754</u>
7	Adjustment to Property Taxes (L6 - L3)	<u>(\$755)</u>	<u>(\$3,277)</u>	<u>(\$5,087)</u>

[1] Per examination of the company's response to accounting data requests.

[2] Per Public Staff calculation.

CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 400

CALCULATION OF INCOME TAXES

For The Test Year Ended March 31, 2022

Public Staff WSIP Exhibit 1
Schedule 3-22(a)**CWSNC WATER OPERATIONS**

Line No.	Item	Present Rates (a) [1]	Company Proposed Rates (b) [3]	Public Staff Recommended Rates (c) [5]
1	Operating revenue	\$22,286,059	\$23,908,165	\$22,705,203
	Operating revenue deductions:			
2	Maintenance expenses	4,623,305	4,623,305	4,623,305
3	General expenses	9,189,350	9,189,350	9,189,350
4	Depreciation expense	3,378,788	3,378,788	3,378,788
5	Amortization of CIAC	(733,560)	(733,560)	(733,560)
6	Amortization of PAA	(121,579)	(121,579)	(121,579)
7	Amortization of ITC	(265)	(265)	(265)
8	Franchise and other taxes	56,486	56,486	56,486
9	Property taxes	135,969	135,969	135,969
10	Payroll taxes	297,925	297,925	297,925
11	Regulatory fee	31,200	33,471	31,787
12	Gross receipts tax	0	0	0
13	Interest expense	1,652,999 [2]	1,652,999 [4]	1,652,999 [6]
14	Total deductions (Sum of L2 thru L13)	18,510,618	18,512,889	18,511,205
15	Taxable income (L1 - L14)	3,775,440	5,395,275	4,193,997
16	State income tax (L15 x 2.5%)	94,386	134,882	104,850
17	Federal taxable income after state income tax (L15 - L16)	3,681,054	5,260,393	4,089,147
18	Federal income tax (L17 x 21%)	773,021	1,104,683	858,721
19	Excess deferred income tax amortization	(64,882)	(64,882)	(64,882)
20	Net amount (L15 - L16 - L18 - L19)	2,972,915	4,220,592	3,295,308
21	Add: Interest expense	1,652,999 [2]	1,652,999 [4]	1,652,999 [6]
22	Net income for a return (L20 + L21)	\$4,625,914	\$5,873,591	\$4,948,307

[1] Public Staff WSIP Exhibit I, Schedule 3(a), Column (c).

[2] Public Staff WSIP Exhibit I, Schedule 1(a), Column (e), Line 1.

[3] Public Staff WSIP Exhibit I, Schedule 3(a), Column (e).

[4] Public Staff WSIP Exhibit I, Schedule 1(a), Column (e), Line 4.

[5] Public Staff WSIP Exhibit I, Schedule 3(a), Column (g).

[6] Public Staff WSIP Exhibit I, Schedule 1(a), Column (e), Line 7.

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CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 400

CALCULATION OF INCOME TAXES

For The Test Year Ended March 31, 2022

Public Staff WSIP Exhibit 1

Schedule 3-22(b)

CWSNC SEWER OPERATIONS

Line No.	Item	Present Rates (a) [1]	Company Proposed Rates (b) [3]	Public Staff Recommended Rates (c) [5]
1	Operating revenue	\$17,044,147	\$18,747,969	\$18,274,671
	Operating revenue deductions:			
2	Maintenance expenses	4,474,940	4,474,940	4,474,940
3	General expenses	5,501,372	5,501,372	5,501,372
4	Depreciation expense	3,065,342	3,065,342	3,065,342
5	Amortization of CIAC	(625,462)	(625,462)	(625,462)
6	Amortization of PAA	(17,621)	(17,621)	(17,621)
7	Amortization of ITC	(254)	(254)	(254)
8	Franchise and other taxes	48,172	48,172	48,172
9	Property taxes	105,629	105,629	105,629
10	Payroll taxes	177,744	177,744	177,744
11	Regulatory fee	23,862	26,247	25,585
12	Gross receipts tax	0	0	0
13	Interest expense	1,552,181 [2]	1,552,181 [4]	1,552,181 [6]
14	Total deductions (Sum of L2 thru L13)	14,305,905	14,308,290	14,307,628
15	Taxable income (L1 - L14)	2,738,242	4,439,679	3,967,043
16	State income tax (L15 x 2.5%)	68,456	110,992	99,176
17	Federal taxable income after state income tax (L15 - L16)	2,669,786	4,328,687	3,867,867
18	Federal income tax (L17 x 21%)	560,655	909,024	812,252
19	Excess deferred income tax amortization	(38,709)	(38,709)	(38,709)
20	Net amount (L15 - L16 - L18 - L19)	2,147,840	3,458,372	3,094,324
21	Add: Interest expense	1,552,181 [2]	1,552,181 [4]	1,552,181 [6]
22	Net income for a return (L20 + L21)	\$3,700,021	\$5,010,553	\$4,646,505

[1] Public Staff WSIP Exhibit I, Schedule 3(b), Column (c).

[2] Public Staff WSIP Exhibit I, Schedule 1(b), Column (e), Line 1.

[3] Public Staff WSIP Exhibit I, Schedule 3(b), Column (e).

[4] Public Staff WSIP Exhibit I, Schedule 1(b), Column (e), Line 4.

[5] Public Staff WSIP Exhibit I, Schedule 3(b), Column (g).

[6] Public Staff WSIP Exhibit I, Schedule 1(b), Column (e), Line 7.

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CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 400

CALCULATION OF INCOME TAXES

For The Test Year Ended March 31, 2022

Public Staff WSIP Exhibit 1
Schedule 3-22(c)**BF/FH/TC WATER OPERATIONS**

Line No.	Item	Present Rates (a)	Company Proposed Rates (b)	Public Staff Recommended Rates (c)
1	Operating revenue	\$1,850,029	\$2,081,782	\$1,948,824
	Operating revenue deductions:			
2	Maintenance expenses	417,535	417,535	417,535
3	General expenses	1,089,816	1,089,816	1,089,816
4	Depreciation expense	149,231	149,231	149,231
5	Amortization of CIAC	(57,707)	(57,707)	(57,707)
6	Amortization of PAA	14,457	14,457	14,457
7	Amortization of ITC	0	0	0
8	Franchise and other taxes	(1,321)	(1,321)	(1,321)
9	Property taxes	7,746	7,746	7,746
10	Payroll taxes	35,795	35,795	35,795
11	Regulatory fee	2,590	2,914	2,728
12	Gross receipts tax	0	0	0
13	Interest expense	84,079	84,079	84,079
14	Total deductions (Sum of L2 thru L13)	1,742,221	1,742,545	1,742,359
15	Taxable income (L1 - L14)	107,809	339,238	206,466
16	State income tax (L15 x 2.5%)	2,695	8,481	5,162
17	Federal taxable income after state income tax (L15 - L16)	105,114	330,757	201,304
18	Federal income tax (L17 x 21%)	22,074	69,459	42,274
19	Excess deferred income tax amortization	(8,585)	(8,585)	(8,585)
20	Net amount (L15 - L16 - L18 - L19)	91,625	269,883	167,615
21	Add: Interest expense	84,079	84,079	84,079
22	Net income for a return (L20 + L21)	\$175,704	\$353,962	\$251,694

[1] Public Staff WSIP Exhibit I, Schedule 3(c), Column (c).

[2] Public Staff WSIP Exhibit I, Schedule 1(c), Column (e), Line 1.

[3] Public Staff WSIP Exhibit I, Schedule 3(c), Column (e).

[4] Public Staff WSIP Exhibit I, Schedule 1(c), Column (e), Line 4.

[5] Public Staff WSIP Exhibit I, Schedule 3(c), Column (g).

[6] Public Staff WSIP Exhibit I, Schedule 1(c), Column (e), Line 7.

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CAROLINA WATER SERVICE, INC., OF NC

Docket No. W-354, Sub 400

CALCULATION OF INCOME TAXES

For The Test Year Ended March 31, 2022

Public Staff WSIP Exhibit 1

Schedule 3-22(d)

BF/FH SEWER OPERATIONS

Line No.	Item	Present Rates (a)	Company Proposed Rates (b)	Public Staff Recommended Rates (c)
1	Operating revenue	\$2,649,016	\$3,046,581	\$2,670,467
	Operating revenue deductions:			
2	Maintenance expenses	408,113	408,113	408,113
3	General expenses	1,115,500	1,115,500	1,115,500
4	Depreciation expense	398,489	398,489	398,489
5	Amortization of CIAC	(150,635)	(150,635)	(150,635)
6	Amortization of PAA	43,346	43,346	43,346
7	Amortization of ITC	0	0	0
8	Franchise and other taxes	(1,352)	(1,352)	(1,352)
9	Property taxes	9,754	9,754	9,754
10	Payroll taxes	36,640	36,640	36,640
11	Regulatory fee	3,709	4,265	3,739
12	Gross receipts tax	0	0	0
13	Interest expense	228,050 [2]	228,050 [4]	228,050 [6]
14	Total deductions (Sum of L2 thru L13)	2,091,613	2,092,169	2,091,643
15	Taxable income (L1 - L14)	557,403	954,412	578,824
16	State income tax (L15 x 2.5%)	13,935	23,860	14,471
17	Federal taxable income after state income tax (L15 - L16)	543,468	930,552	564,353
18	Federal income tax (L17 x 21%)	114,128	195,416	118,514
19	Excess deferred income tax amortization	(8,786)	(8,786)	(8,786)
20	Net amount (L15 - L16 - L18 - L19)	438,126	743,922	454,625
21	Add: Interest expense	228,050 [2]	228,050 [4]	228,050 [6]
22	Net income for a return (L20 + L21)	\$666,176	\$971,972	\$682,675

[1] Public Staff WSIP Exhibit I, Schedule 3(d), Column (c).

[2] Public Staff WSIP Exhibit I, Schedule 1(d), Column (e), Line 1.

[3] Public Staff WSIP Exhibit I, Schedule 3(d), Column (e).

[4] Public Staff WSIP Exhibit I, Schedule 1(d), Column (e), Line 4.

[5] Public Staff WSIP Exhibit I, Schedule 3(d), Column (g).

[6] Public Staff WSIP Exhibit I, Schedule 1(d), Column (e), Line 7.

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CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
CALCULATION OF INCOME TAXES
For The Rate Year 1 - Rate Year 3 Ended March 31,
2024 -2026

Public Staff WS P Exhibit 1
Schedule 3-22(a)(1)

Line No.	Item	Rate Year 1			Rate Year 2			Rate Year 3		
		Present Rates	Company Proposed Rates	Public Staff Recommended Rates	Present Rates	Company Proposed Rates	Public Staff Recommended Rates	Present Rates	Company Proposed Rates	Public Staff Recommended Rates
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
1	Operating revenue	\$23,908,165	\$26,063,997	\$23,870,204	\$26,063,997	\$27,196,063	\$24,967,556	\$27,196,063	\$28,333,112	\$25,263,504
	Operating revenue deductions:									
2	Maintenance expenses	4,689,415	4,689,415	4,689,415	4,934,648	4,934,648	4,934,648	4,864,424	4,864,424	4,864,424
3	General expenses	9,477,374	9,477,374	9,477,374	9,731,457	9,731,457	9,731,457	9,992,528	9,992,528	9,992,528
4	Depreciation expense	3,721,778	3,721,778	3,721,778	3,920,474	3,920,474	3,920,474	4,033,264	4,033,264	4,033,264
5	Amortization of CIAC	(733,560)	(733,560)	(733,560)	(733,560)	(733,560)	(733,560)	(733,560)	(733,560)	(733,560)
6	Amortization of PAA	(122,846)	(122,846)	(122,846)	(121,579)	(121,579)	(121,579)	(122,002)	(122,002)	(122,002)
7	Amortization of ITC	(265)	(265)	(265)	(265)	(265)	(265)	(265)	(265)	(265)
8	Franchise and other taxes	56,486	56,486	56,486	56,486	56,486	56,486	56,486	56,486	56,486
9	Property taxes	135,969	135,969	135,969	135,969	135,969	135,969	135,969	135,969	135,969
10	Payroll taxes	306,863	306,863	306,863	316,069	316,069	316,069	325,551	325,551	325,551
11	Regulatory fee	33,471	36,490	33,418	36,490	38,074	34,955	38,074	39,666	35,369
12	Gross receipts tax	0	0	0	0	0	0	0	0	0
13	Interest expense	1,780,801	1,780,801	1,780,801	1,888,748	1,888,748	1,888,748	1,883,965	1,883,965	1,883,965
14	Total deductions (Sum of L2 thru L13)	19,345,486	19,348,505	19,345,433	20,164,936	20,166,520	20,163,401	20,474,433	20,476,025	20,471,728
15	Taxable income (L1 - L14)	4,562,679	6,715,492	4,524,770	5,899,061	7,029,544	4,804,155	6,721,631	7,857,087	4,791,776
16	State income tax (L15 x 2.5%)	114,067	167,887	113,119	147,477	175,739	120,104	168,041	196,427	119,794
17	Federal taxable income after state income tax (L15 - L16)	4,448,612	6,547,604	4,411,651	5,751,584	6,853,805	4,684,051	6,553,590	7,660,660	4,671,982
18	Federal income tax (L17 x 21%)	934,209	1,374,997	926,447	1,207,833	1,439,299	983,651	1,376,254	1,608,739	981,116
19	Excess deferred income tax amortization	(64,882)	(64,882)	(64,882)	(64,882)	(64,882)	(64,882)	(64,882)	(64,882)	(64,882)
20	Net amount (L15 - L16 - L18 - L19)	3,579,286	5,237,489	3,550,086	4,608,634	5,479,388	3,765,282	5,242,218	6,116,803	3,755,748
21	Add: Interest expense	1,780,801	1,780,801	1,780,801	1,888,748	1,888,748	1,888,748	1,883,965	1,883,965	1,883,965
22	Net income for a return (L20 + L21)	\$5,360,087	\$7,018,290	\$5,330,887	\$6,497,382	\$7,368,136	\$5,654,030	\$7,126,183	\$8,000,768	\$5,639,713

- [1] Public Staff WSIP Exhibit 1, Schedule 3(a)(1), Column (c).
[2] Public Staff WSIP Exhibit 1, Schedule 1(a), Column (e), Line 1.
[3] Public Staff WSIP Exhibit 1, Schedule 3(a)(1), Column (e).
[4] Public Staff WSIP Exhibit 1, Schedule 1(a), Column (e), Line 4.
[5] Public Staff WSIP Exhibit 1, Schedule 3(a)(1), Column (g).
[6] Public Staff WSIP Exhibit 1, Schedule 1(a), Column (e), Line 7.

- [1] Public Staff WSIP Exhibit 1, Schedule 3(a)(2), Column (c).
[2] Public Staff WSIP Exhibit 1, Schedule 1(a), Column (e), Line 1.
[3] Public Staff WSIP Exhibit 1, Schedule 3(a)(2), Column (e).
[4] Public Staff WSIP Exhibit 1, Schedule 1(a), Column (e), Line 4.
[5] Public Staff WSIP Exhibit 1, Schedule 3(a)(2), Column (g).
[6] Public Staff WSIP Exhibit 1, Schedule 1(a), Column (e), Line 7.

- [1] Public Staff WSIP Exhibit 1, Schedule 3(a)(3), Column (c).
[2] Public Staff WSIP Exhibit 1, Schedule 1(a), Column (e), Line 1.
[3] Public Staff WSIP Exhibit 1, Schedule 3(a)(3), Column (e).
[4] Public Staff WSIP Exhibit 1, Schedule 1(a), Column (e), Line 4.
[5] Public Staff WSIP Exhibit 1, Schedule 3(a)(3), Column (g).
[6] Public Staff WSIP Exhibit 1, Schedule 1(a), Column (e), Line 7.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
CALCULATION OF INCOME TAXES
For The Rate Year 1 - Rate Year 3 Ended March 31,
2024 -2026

Public Staff WS P Exhibit 1
Schedule 3-22(b)(2)

CWSNC SEWER OPERATIONS		Rate Year 1			Rate Year 2			Rate Year 3		
Line No.	Item	Present Rates	Company Proposed Rates	Public Staff Recommended Rates	Present Rates	Company Proposed Rates	Public Staff Recommended Rates	Present Rates	Company Proposed Rates	Public Staff Recommended Rates
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
1	Operating revenue	\$18,747,970	\$20,892,732	\$19,629,601	\$20,892,732	\$22,137,321	\$20,090,172	\$22,137,321	\$23,484,217	\$21,838,770
	Operating revenue deductions:									
2	Maintenance expenses	4,335,531	4,335,531	4,335,531	4,369,197	4,369,197	4,369,197	4,429,737	4,429,737	4,429,737
3	General expenses	5,673,853	5,673,853	5,673,853	5,825,910	5,825,910	5,825,910	5,982,148	5,982,148	5,982,148
4	Depreciation expense	3,442,879	3,442,879	3,442,879	3,576,077	3,576,077	3,576,077	4,015,970	4,015,970	4,015,970
5	Amortization of CIAC	(625,462)	(625,462)	(625,462)	(625,462)	(625,462)	(625,462)	(625,462)	(625,462)	(625,462)
6	Amortization of PAA	(17,244)	(17,244)	(17,244)	(17,244)	(17,244)	(17,244)	(17,119)	(17,119)	(17,119)
7	Amortization of ITC	(254)	(254)	(254)	(254)	(254)	(254)	(254)	(254)	(254)
8	Franchise and other taxes	48,172	48,172	48,172	48,172	48,172	48,172	48,172	48,172	48,172
9	Property taxes	105,629	105,629	105,629	105,629	105,629	105,629	105,629	105,629	105,629
10	Payroll taxes	183,076	183,076	183,076	188,569	188,569	188,569	194,226	194,226	194,226
11	Regulatory fee	26,247	29,250	27,481	29,250	30,992	28,126	30,992	32,878	30,574
12	Gross receipts tax	0	0	0	0	0	0	0	0	0
13	Interest expense	1,813,238 [2]	1,813,238 [4]	1,813,238 [6]	1,851,004 [2]	1,851,004 [4]	1,851,004	2,153,024	2,153,024	2,153,024 [6]
14	Total deductions (Sum of L2 thru L13)	14,985,665	14,988,668	14,986,899	15,350,847	15,352,589	15,349,723	16,317,063	16,318,949	16,316,645
15	Taxable income (L1 - L14)	3,762,305	5,904,064	4,642,702	5,541,884	6,784,731	4,740,448	5,820,258	7,165,268	5,522,125
16	State income tax (L15 x 2.5%)	94,058	147,602	116,068	138,547	169,618	118,511	145,506	179,132	138,053
17	Federal taxable income after state income tax (L15 - L16)	3,668,247	5,756,462	4,526,634	5,403,337	6,615,113	4,621,937	5,674,751	6,986,136	5,384,072
18	Federal income tax (L17 x 21%)	770,332	1,208,857	950,593	1,134,701	1,389,174	970,607	1,191,698	1,467,089	1,130,655
19	Excess deferred income tax amortization	(38,709)	(38,709)	(38,709)	(38,709)	(38,709)	(38,709)	(38,709)	(38,709)	(38,709)
20	Net amount (L15 - L16 - L18 - L19)	2,936,624	4,586,314	3,614,750	4,307,345	5,264,648	3,690,039	4,521,763	5,557,757	4,292,126
21	Add: Interest expense	1,813,238 [2]	1,813,238 [4]	1,813,238 [6]	1,851,004 [2]	1,851,004 [4]	1,851,004	2,153,024 [2]	2,153,024 [4]	2,153,024 [6]
22	Net income for a return (L20 + L21)	\$4,749,862	\$6,399,552	\$5,427,988	\$6,158,349	\$7,115,652	\$5,541,043	\$6,674,787	\$7,710,781	\$6,445,150

[1] Public Staff WSIP Exhibit I, Schedule 3(b), Column (c).

[2] Public Staff WSIP Exhibit I, Schedule 1(b), Column (e), Line 1.

[3] Public Staff WSIP Exhibit I, Schedule 3(b), Column (e).

[4] Public Staff WSIP Exhibit I, Schedule 1(b), Column (e), Line 4.

[5] Public Staff WSIP Exhibit I, Schedule 3(b), Column (g).

[6] Public Staff WSIP Exhibit I, Schedule 1(b), Column (e), Line 7.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
CALCULATION OF INCOME TAXES
For The Rate Year 1 - Rate Year 3 Ended March 31,
2024 -2026

Public Staff WS P Exhibit 1
Schedule 3-22(c)(3)

BF/FH/TC WATER OPERATIONS

Line No.	Item	Rate Year 1			Rate Year 2			Rate Year 3		
		Present Rates	Company Proposed Rates	Public Staff Recommended Rates	Present Rates	Company Proposed Rates	Public Staff Recommended Rates	Present Rates	Company Proposed Rates	Public Staff Recommended Rates
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
1	Operating revenue	\$2,081,781	\$2,468,436	\$2,227,260	\$2,468,436	\$2,615,709	\$2,345,428	\$2,615,709	\$2,725,433	\$2,395,188
	Operating revenue deductions:									
2	Maintenance expenses	\$431,182	\$431,182	\$431,182	\$441,175	\$441,175	\$441,175	\$450,364	\$450,364	\$450,364
3	General expenses	\$1,123,934	\$1,123,934	\$1,123,934	\$1,154,108	\$1,154,108	\$1,154,108	\$1,185,111	\$1,185,111	\$1,185,111
4	Depreciation expense	\$203,467	\$203,467	\$203,467	\$230,489	\$230,489	\$230,489	\$235,839	\$235,839	\$235,839
5	Amortization of CIAC	(\$57,707)	(\$57,707)	(\$57,707)	(\$57,707)	(\$57,707)	(\$57,707)	(\$57,707)	(\$57,707)	(\$57,707)
6	Amortization of PAA	\$14,153	\$14,153	\$14,153	\$14,639	\$14,639	\$14,639	\$14,518	\$14,518	\$14,518
7	Amortization of ITC	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
8	Franchise and other taxes	(\$1,321)	(\$1,321)	(\$1,321)	(\$1,321)	(\$1,321)	(\$1,321)	(\$1,321)	(\$1,321)	(\$1,321)
9	Property taxes	\$7,746	\$7,746	\$7,746	\$7,746	\$7,746	\$7,746	\$7,746	\$7,746	\$7,746
10	Payroll taxes	\$36,869	\$36,869	\$36,869	\$37,975	\$37,975	\$37,975	\$39,114	\$39,114	\$39,114
11	Regulatory fee	\$2,914	\$3,456	\$3,118	\$3,456	\$3,662	\$3,284	\$3,662	\$3,816	\$3,353
12	Gross receipts tax	0	0	0	0	0	0	0	0	0
13	Interest expense	132,927 [2]	132,927 [4]	132,927 [6]	146,645 [2]	146,645 [4]	146,645 [6]	147,517 [2]	147,517 [4]	147,517 [6]
14	Total deductions (Sum of L2 thru L13)	1,894,164	1,894,706	1,894,368	1,977,205	1,977,411	1,977,033	2,024,842	2,024,996	2,024,533
15	Taxable income (L1 - L14)	187,617	573,730	332,892	491,230	638,298	368,394	590,867	700,437	370,655
16	State income tax (L15 x 2.5%)	4,690	14,343	8,322	12,281	15,957	9,210	14,772	17,511	9,266
17	Federal taxable income after state income tax (L15 - L16)	182,927	559,387	324,570	478,950	622,340	359,184	576,095	682,926	361,389
18	Federal income tax (L17 x 21%)	38,415	117,471	68,160	100,579	130,691	75,429	120,980	143,415	75,892
19	Excess deferred income tax amortization	(8,585)	(8,585)	(8,585)	(8,585)	(8,585)	(8,585)	(8,585)	(8,585)	(8,585)
20	Net amount (L15 - L16 - L18 - L19)	153,097	450,501	264,995	386,955	500,234	292,341	463,700	548,097	294,082
21	Add: Interest expense	132,927 [2]	132,927 [4]	132,927 [6]	146,645 [2]	146,645 [4]	146,645	147,517 [2]	147,517 [4]	147,517 [6]
22	Net income for a return (L20 + L21)	\$286,024	\$583,428	\$397,922	\$533,600	\$646,879	\$438,986	\$611,217	\$695,614	\$441,599

[1] Public Staff WSIP Exhibit I, Schedule 3(c), Column (c).

[2] Public Staff WSIP Exhibit I, Schedule 1(c), Column (e), Line 1.

[3] Public Staff WSIP Exhibit I, Schedule 3(c), Column (e).

[4] Public Staff WSIP Exhibit I, Schedule 1(c), Column (e), Line 4.

[5] Public Staff WSIP Exhibit I, Schedule 3(c), Column (g).

[6] Public Staff WSIP Exhibit I, Schedule 1(c), Column (e), Line 7.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
CALCULATION OF INCOME TAXES
For The Rate Year 1 - Rate Year 3 Ended March 31,
2024 -2026

Public Staff WS P Exhibit 1
Schedule 3-22(d)(4)

BF/FH SEWER OPERATIONS

Line No.	Item	Rate Year 1			Rate Year 2			Rate Year 3		
		Present Rates	Company Proposed Rates	Public Staff Recommended Rates	Present Rates	Company Proposed Rates	Public Staff Recommended Rates	Present Rates	Company Proposed Rates	Public Staff Recommended Rates
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
1	Operating revenue	\$3,046,581	\$3,173,173	\$2,820,881	\$3,172,369	\$3,425,579	\$3,431,795	\$3,425,579	\$3,565,607	\$3,488,241
	Operating revenue deductions:									
2	Maintenance expenses	442,048	442,048	442,048	451,507	451,507	451,507	461,344	461,344	461,344
3	General expenses	1,150,424	1,150,424	1,150,424	1,181,306	1,181,306	1,181,306	1,213,042	1,213,042	1,213,042
4	Depreciation expense	415,979	415,979	415,979	560,236	560,236	560,236	569,569	569,569	569,569
5	Amortization of CIAC	(150,635)	(150,635)	(150,635)	(150,635)	(150,635)	(150,635)	(150,635)	(150,635)	(150,635)
6	Amortization of PAA	42,170	42,170	42,170	42,170	42,170	42,170	41,834	41,834	41,834
7	Amortization of ITC	0	0	0	0	0	0	0	0	0
8	Franchise and other taxes	(1,352)	(1,352)	(1,352)	(1,352)	(1,352)	(1,352)	(1,352)	(1,352)	(1,352)
9	Property taxes	9,754	9,754	9,754	9,754	9,754	9,754	9,754	9,754	9,754
10	Payroll taxes	37,739	37,739	37,739	38,871	38,871	38,871	40,038	40,038	40,038
11	Regulatory fee	4,265	4,442	3,949	4,441	4,796	4,805	4,796	4,992	4,884
12	Gross receipts tax	0	0	0	0	0	0	0	0	0
13	Interest expense	245,867 [2]	245,867 [4]	245,867 [6]	364,125 [2]	364,125 [4]	364,125 [6]	365,416 [2]	365,416 [4]	365,416 [6]
14	Total deductions (Sum of L2 thru L13)	2,196,258	2,196,435	2,195,942	2,500,423	2,500,778	2,500,787	2,553,804	2,554,000	2,553,892
15	Taxable income (L1 - L14)	850,322	976,737	624,938	671,946	924,801	931,008	871,775	1,011,607	934,348
16	State income tax (L15 x 2.5%)	21,258	24,418	15,623	16,799	23,120	23,275	21,794	25,290	23,359
17	Federal taxable income after state income tax (L15 - L16)	829,064	952,319	609,315	655,148	901,681	907,733	849,981	986,317	910,990
18	Federal income tax (L17 x 21%)	174,104	199,987	127,956	137,581	189,353	190,624	178,496	207,127	191,308
19	Excess deferred income tax amortization	(8,786)	(8,786)	(8,786)	(8,786)	(8,786)	(8,786)	(8,786)	(8,786)	(8,786)
20	Net amount (L15 - L16 - L18 - L19)	663,747	761,118	490,145	526,353	721,114	725,895	680,271	787,976	728,468
21	Add: Interest expense	245,867 [2]	245,867 [4]	245,867 [6]	364,125 [2]	364,125 [4]	364,125	365,416 [2]	365,416 [4]	365,416 [6]
22	Net income for a return (L20 + L21)	\$909,614	\$1,006,985	\$736,012	\$890,478	\$1,085,239	\$1,090,020	\$1,045,687	\$1,153,392	\$1,093,884

- [1] Public Staff WSIP Exhibit I, Schedule 3(d), Column (c).
[2] Public Staff WSIP Exhibit I, Schedule 1(d), Column (e), Line 1.
[3] Public Staff WSIP Exhibit I, Schedule 3(d), Column (e).
[4] Public Staff WSIP Exhibit I, Schedule 1(d), Column (e), Line 4.
[5] Public Staff WSIP Exhibit I, Schedule 3(d), Column (g).
[6] Public Staff WSIP Exhibit I, Schedule 1(d), Column (e), Line 7.

CAROLINA WATER SERVICE, INC., OF NC
Docket No. W-354, Sub 400
Revenue Requirement Percentage Increase
For The Rate Year 1 - Rate Year 3 Ended March 31,
2024 -2026

Public Staff WSIP Exhibit 1
Schedule 3-23

CWSNC OPERATIONS

Line No.	Item	Rate Year 1 (a)	Rate Year 2 (b)	Rate Year 3 (c)
Uniform Water				
1	Annual Service Revenue Percentage Increase	5.16%	4.62%	1.19%
2	Statutory Cap	N/A	5.00%	5.00%
3	Public Staff Calculated Service Revenue	23,867,951	24,970,222	25,267,497
4	Service Revenue Allowed at Statutory Cap	<u>23,867,951</u>	<u>25,061,349</u> [1]	<u>26,218,733</u> [2]
5	Adjustment to Statutory Cap (L4 - L3)	0	0	0
Uniform Sewer				
6	Annual Service Revenue Percentage Increase	7.45%	2.36%	8.74%
7	Statutory Cap	N/A	5.00%	5.00%
8	Public Staff Calculated Service Revenue	19,575,606	20,036,896	21,788,224
9	Service Revenue Allowed at Statutory Cap	<u>19,575,606</u>	<u>20,554,386</u> [1]	<u>21,038,741</u> [2]
10	Adjustment to Statutory Cap (L9 - L8)	0	0	(749,483)
BFHTC Water				
11	Annual Service Revenue Percentage Increase	14.35%	5.33%	2.13%
12	Statutory Cap	N/A	5.00%	5.00%
13	Public Staff Calculated Service Revenue	2,264,556	2,385,192	2,435,992
14	Service Revenue Allowed at Statutory Cap	<u>2,264,556</u>	<u>2,377,784</u> [1]	<u>2,504,452</u> [2]
15	Adjustment to Statutory Cap (L14 - L13)	0	(7,408)	0
BFHTC Sewer				
16	Annual Service Revenue Percentage Increase	14.35%	21.76%	1.65%
17	Statutory Cap	N/A	5.00%	5.00%
18	Public Staff Calculated Service Revenue	2,815,916	3,428,727	3,485,348
19	Service Revenue Allowed at Statutory Cap	<u>2,815,916</u>	<u>2,956,712</u> [1]	<u>3,104,547</u> [3]
20	Adjustment to Statutory Cap (L19 - L18)	0	(472,015)	(380,801)

[1] Rate Year 1 plus Rate Year 1 times 5%

[1] Rate Year 2 plus Rate Year 2 times 5%

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CAROLINA WATER SERVICE, INC. OF NC

Docket No. W-354, Sub 400

**CALCULATION OF GROSS REVENUE
IMPACT OF PUBLIC STAFF ADJUSTMENTS
For The Test Year Ended March 31, 2022**

Public Staff WS P Exhibit 1

Schedule BY

Base Year

Line No.	Item	CWSNC Water (a)	CWSNC Sewer (b)	BF/FH/TC Water (c)	BF/FH/TC Sewer (d)	Total
1	Increase/(decrease) in total revenue per Company application	\$ 1,651,225	\$ 1,747,307	\$ 233,033	\$ 390,704	\$ 4,022,268
2	Company 09.19 2022 updates	403,404	319,362	(18,202)	(51,783)	652,781
3	Increase/(decrease) in total revenue per Company updates	2 054 629	2 066 669	214 830	338 921	4 675 049
4	Difference in calculation of revenue requirement based on Company amounts	0	0	(1)	1	0
5	Adjust capital structure to 50% debt and 50% equity	0	0	0	0	0
6	Adjust return on equity from 10.45% to 9.45%	(564,589)	(531,090)	(28,458)	(76,609)	(1,200,746)
7	Adjust debt cost rate from 4 64% to 4 64%	0	0	0	0	0
8	Adjustment to uncollectibles	(60,303)	(99,560)	14,207	(26,080)	(171,736)
9	Adjustment to forfeited discounts	(63,183)	(45,511)	(5,289)	(7,094)	(121,077)
10	Adjustment to miscellaneous revenues	(18,372)	(10,961)	(1,183)	(1,210)	(31,725)
11	Update revenues to 8/31/2022	539,469	573,835	1,668	(9,864)	1,105,108
12	Adjustment to reclassify utility accounts	(1,980)	1,980	0	0	0
13	Adjustment to remove pro forma estimates	0	0	0	0	0
14	Adjustment to over booked AFUDC	(269)	(254)	0	(7)	(530)
15	Adjustment to customer deposits	0	0	0	0	0
16	Adjustment to inventory	0	0	0	0	0
17	Adjustment to average tax accruals	(12,395)	(9,630)	(734)	(939)	(23,698)
18	Adjustment to remove Company proposed additions to add PS post TY a	(295,880)	(241,434)	(12,322)	21,436	(528,200)
19	Adjustment to add back ERC book adjustment	(3,622)	(2,161)	(435)	(446)	(6,664)
20	Adjustment to gain on sale	0	0	0	0	0
21	Adjustment to include actual post TY GL additions	252,754	163,962	13,436	20,666	450,818
22	Adjustment to reclassify wrongly booked gross up tax to CIAC	0	0	0	0	0
23	Adjustment to allocated cost GL adjustments	0	0	0	0	0
24	Adjustment to reflect annual level of depreciation	2,263	509	729	990	4,491
25	Adjustment to cash working capital	(6,500)	(1,880)	(268)	(1,085)	(9,733)
26	Adjustment to ADIT	(6,777)	(3,925)	(801)	2,630	(8,873)
27	Adjustment for excess deferred taxes	(84,353)	(50,326)	(11,161)	(11,423)	(157,263)
28	Adjustment to deferred charges	(5,946)	(4,171)	(675)	(607)	(11,399)
29	Adjustment to purchased power	(2,208)	(22,376)	0	0	(24,584)
30	Adjustment to maintenance and repair	(6,061)	98,102	12,774	(60,014)	44,801
31	Adjustment to maintenance testing	0	0	0	0	0
32	Adjustment to chemicals	(64,638)	(11,609)	(32)	(4,839)	(81,118)
33	Adjustment to office utility	0	0	0	0	0
34	Adjustment to amortization expense - CIAC	0	0	0	0	0
35	Adjustment to regulatory commission expense	(271,997)	(162,274)	(33,991)	(34,795)	(503,057)
36	Adjustment to pension and benefits	(39,758)	(23,719)	(4,777)	(4,890)	(73,144)
37	Adjustment to amortization expense - PAA	(4,227)	(189)	(1,399)	(505)	(6,320)
38	Adjustment to meter reading	(6,733)	0	0	0	(6,733)
39	Adjustment to property tax	0	0	0	0	0
40	Adjustment to general salaries and wages	(77,996)	(46,533)	(9,371)	(9,592)	(143,492)
41	Adjustment to payroll tax	(6,489)	(3,871)	(780)	(798)	(11,938)
42	Adjustment to depreciation expense	(657,196)	(391,475)	(56,064)	(80,663)	(1,185,398)
43	Adjustment to office supplies and other office exp.	0	0	0	0	0
44	Adjustment to capitalized time	(6,869)	(4,098)	(825)	(845)	(12,637)
45	Adjustment to rent	0	0	0	0	0
46	Adjustment to insurance	37,758	22,527	4,537	4,644	69,466
47	Adjustment to miscellaneous	(181,444)	(27,844)	8,327	8,521	(192,440)
48	Adjustment to purchased water/sewer	0	0	0	0	0

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CAROLINA WATER SERVICE, INC. OF NC

Docket No. W-354, Sub 400

**CALCULATION OF GROSS REVENUE
IMPACT OF PUBLIC STAFF ADJUSTMENTS
For The Test Year Ended March 31, 2022**

Public Staff WS P Exhibit 1
Schedule BY

Base Year

Line No.	Item	CWSNC Water (a)	CWSNC Sewer (b)	BF/FH/TC Water (c)	BF/FH/TC Sewer (d)	Total
49	Rounding					0
50	Revenue impact of Public Staff adjustments (Sum of L4 thru L49)	(1,635,483)	(836,146)	(116,034)	(317,471)	(2,905,135)
51	Increase/(decrease) per Public Staff (L3 + L50)	\$ 419,146	\$ 1,230,523	\$ 98,796	\$ 21,450	\$ 1,769,915

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CAROLINA WATER SERVICE, INC. OF NC
Docket No. W-354, Sub 400
CALCULATION OF GROSS REVENUE
IMPACT OF PUBLIC STAFF ADJUSTMENTS
For The Rate Year Ended March 31, 2024

Public Staff WSIP Exhibit 1
Schedule RY 1

Rate Year 1

Line No.	Item	CWSNC Water (a)	CWSNC Sewer (b)	BF/FH/TC Water (c)	BF/FH/TC Sewer (d)	Total
1	Increase/(decrease) in total revenue per Company application	\$ 3,635,456	\$ 3,881,523	\$ 603,728	\$ 630,021	\$ 8,750,728
2	Company 09.19.2022 updates	334,720	(174,594)	(34,117)	(37,930)	88,079
3	Increase/(decrease) in total revenue per Company updates	3,970,177	3,706,929	569,611	592,091	8,838,807
4	Difference in calculation of revenue requirement based on Company amounts	0	(0)	1	(1)	(0)
5	Adjust capital structure to 50% debt and 50% equity	0	0	0	0	0
6	Adjust return on equity from 10.70% to 9.25%	(759,799)	(712,062)	(52,831)	(103,122)	(1,627,814)
7	Adjust debt cost rate from 4.64% to 4.64%	0	0	0	0	0
8	Adjustment to uncollect bles	(48,410)	(92,329)	19,715	(23,776)	(144,800)
9	Adjustment to forfeited discounts	(67,804)	(50,083)	(5,955)	(8,164)	(132,006)
10	Adjustment to miscellaneous revenues	(18,373)	(10,961)	(1,183)	(1,210)	(31,726)
11	Update revenues to 8/31/2022	(1,089,909)	(1,132,647)	(234,926)	(408,663)	(2,866,145)
12	Adjustment to plant in service	(7,348)	553,519	40,696	(13,924)	572,943
13	Adjustment to accumulated depreciation	(330,735)	(325,745)	(25,497)	(22,918)	(704,895)
14	Adjustment to cash working capital	(16,325)	(7,867)	(210)	(1,522)	(25,924)
15	Adjustment to deferred charges	(6,947)	(12,598)	(1,041)	1,711	(18,876)
16	Adjustment to average tax accruals	(12,885)	(10,022)	(833)	(30)	(23,770)
17	Adjustment to PAA	11,565	548	(1,184)	(4,054)	6,875
18	Adjustment to CIAC	32,668	25,762	3,802	6,743	68,975
19	Adjustment to ADIT	9,028	(5,834)	(5,334)	5,423	3,283
20	Adjustment to EDIT	(84,353)	(50,326)	(11,161)	(11,423)	(157,263)
21	Adjustment to purchased power	(36,105)	(54,770)	(4,158)	(9,429)	(104,462)
22	Adjustment to purchased water/sewer	0	0	0	0	0
23	Adjustment to maintenance and repair	(68,252)	(240,668)	(5,878)	(53,813)	(368,611)
24	Adjustment to maintenance testing	(8,218)	(12,851)	(429)	(1,017)	(22,515)
25	Adjustment to meter reading	(21,667)	(182)	(3,032)	(70)	(24,951)
26	Adjustment to chemicals	(79,971)	(34,148)	(3,258)	(7,591)	(124,968)
27	Adjustment to transportation	(21,051)	(11,886)	(6,179)	(6,456)	(45,572)
28	Adjustment to capitalized time	(7,075)	(4,221)	(850)	(871)	(13,016)
29	Adjustment to outside services - other	(19,604)	(11,398)	(1,576)	(1,698)	(34,275)
30	Adjustment to general salaries and wages	(80,336)	(47,929)	(9,652)	(9,880)	(147,796)

CAROLINA WATER SERVICE, INC. OF NC
Docket No. W-354, Sub 400
CALCULATION OF GROSS REVENUE
IMPACT OF PUBLIC STAFF ADJUSTMENTS
For The Rate Year Ended March 31, 2024

Public Staff WSIP Exhibit 1
Schedule RY 1

Rate Year 1

Line No.	Item	CWSNC Water (a)	CWSNC Sewer (b)	BF/FH/TC Water (c)	BF/FH/TC Sewer (d)	Total
31	Adjustment to office supplies and other office exp.	(14,530)	(8,548)	(1,575)	(1,622)	(26,275)
32	Adjustment to regulatory commission expense	(280,977)	(167,412)	(35,198)	(36,073)	(519,659)
33	Adjustment to pension and benefits	(85,916)	(51,258)	(10,323)	(10,567)	(158,063)
34	Adjustment to rent	(8,908)	(5,314)	(1,070)	(1,096)	(16,388)
35	Adjustment to insurance	9,450	5,788	(6,997)	950	9,191
36	Adjustment to office utility	(11,585)	(6,421)	(1,106)	(1,192)	(20,304)
37	Adjustment to miscellaneous	(322,585)	(104,847)	(5,672)	(5,840)	(438,944)
38	Adjustment to depreciation expense	(536,258)	(224,781)	(47,049)	(83,793)	(891,881)
39	Adjustment to amortization expense - CIAC	0	0	0	(0)	0
40	Adjustment to amortization expense - PAA	(5,496)	188	(1,703)	(1,682)	(8,693)
41	Adjustment to franchise tax	(5,545)	(4,535)	129	137	(9,814)
42	Adjustment to property tax	(9,861)	(7,585)	(2,055)	(756)	(20,258)
43	Adjustment to payroll tax	(6,684)	(3,988)	(803)	(822)	(12,296)
44	Adjustment to reflect reg rate change impact on oper deduction	1,921	1,418	191	219	3,749
45	Adjustment to reflect regulatory rate change impact on rate base	742	695	51	102	1,590
46	Rounding	0	0	0	0	0
47	Revenue impact of Public Staff adjustments (Sum of L4 thru L46)	<u>(4,008,136)</u>	<u>(2,825,297)</u>	<u>(424,132)</u>	<u>(817,791)</u>	<u>(8,075,356)</u>
48	Increase/(decrease) per Public Staff (L3 + L47)	<u>\$ (37,960)</u>	<u>\$ 881,632</u>	<u>\$ 145,479</u>	<u>\$ (225,700)</u>	<u>\$ 763,451</u>

CAROLINA WATER SERVICE, INC. OF NC
Docket No. W-354, Sub 384
CALCULATION OF GROSS REVENUE
IMPACT OF PUBLIC STAFF ADJUSTMENTS
For The Rate Year Ended March 31, 2025

Public Staff WSIP Exhibit 1
Schedule RY 2

Rate Year 2

Line No.	Item	CWSNC Water (a)	CWSNC Sewer (b)	BF/FH/TC Water (c)	BF/FH/TC Sewer (d)	Total
1	Increase/(decrease) in total revenue per Company application	\$ 1,044,932	\$ 1,403,608	\$ 140,204	\$ 248,864	\$ 2,837,608
2	Company 9.19.22 updates	461,631	460,651	95,249	381,917	1,399,448
3	Increase/(decrease) in total revenue per Company updates	1,506,563	1,864,259	235,453	630,781	4,237,056
4	Difference in calculation of revenue requirement based on Company amounts	(0)	(0)	(0)	0	(0)
5	Adjust capital structure to 50% debt and 50% equity	0	0	0	0	0
6	Adjust return on equity from 10.70% to 9.25%	(841,290)	(838,545)	(67,705)	(148,019)	(1,895,559)
7	Adjust debt cost rate from 4.64% to 4.64%	0	0	0	0	0
8	Adjustment to uncollectibles	(70,952)	(119,291)	19,927	(32,363)	(202,680)
9	Adjustment to forfeited discounts	9,220	(4,621)	(75)	141	4,664
10	Adjustment to miscellaneous revenues	(18,373)	(10,961)	(1,182)	(1,210)	(31,726)
11	Update revenues to 8/31/2022	669,954	411,021	(58,062)	57,922	1,080,835
12	Adjustment to plant in service	(90,952)	(163,866)	(5,271)	109,651	(150,437)
13	Adjustment to accumulated depreciation	(569,741)	(600,094)	(60,319)	(98,365)	(1,328,518)
14	Adjustment to cash working capital	(15,149)	(8,715)	(319)	(1,844)	(26,027)
15	Adjustment to deferred charges	(20,359)	(17,099)	(3,495)	(3,655)	(44,607)
16	Adjustment to average tax accruals	(13,369)	(10,619)	(908)	(146)	(25,043)
17	Adjustment to PAA	11,917	532	(1,083)	(3,914)	7,453
18	Adjustment to CIAC	32,668	25,762	3,802	6,743	68,975
19	Adjustment to ADIT	11,159	8,928	(4,279)	(9,193)	6,616
20	Adjustment to EDIT	(84,353)	(50,326)	(11,161)	(11,423)	(157,263)
21	Adjustment to purchased power	(37,086)	(54,228)	(4,612)	(11,546)	(107,472)
22	Adjustment to purchased water/sewer	0	0	0	0	0
23	Adjustment to maintenance and repair	103,272	(288,355)	(3,717)	(58,792)	(247,592)
24	Adjustment to maintenance testing	(10,399)	(13,782)	(534)	(1,430)	(26,146)
25	Adjustment to meter reading	(24,564)	(192)	(3,557)	(89)	(28,402)
26	Adjustment to chemicals	(82,574)	(33,650)	(2,853)	(8,620)	(127,697)
27	Adjustment to transportation	(31,364)	(16,634)	(7,563)	(8,151)	(63,712)
28	Adjustment to capitalized time	(7,287)	(4,347)	(875)	(897)	(13,406)
29	Adjustment to outside services - other	(21,363)	(11,825)	(1,848)	(2,156)	(37,192)
30	Adjustment to general salaries and wages	(82,746)	(49,367)	(9,942)	(10,176)	(152,230)

31	Adjustment to office supplies and other office exp.	(18,130)	(9,142)	(1,949)	(2,256)	(31,478)
32	Adjustment to regulatory commission expense	(284,339)	(168,960)	(35,640)	(36,615)	(525,554)
33	Adjustment to pension and benefits	(92,095)	(50,216)	(10,965)	(12,040)	(165,316)
34	Adjustment to rent	(9,122)	(5,442)	(1,333)	(1,541)	(17,437)
35	Adjustment to insurance	(9,846)	(13,267)	(14,277)	(9,813)	(47,203)
36	Adjustment to office utility	(13,735)	(6,797)	(1,297)	(1,513)	(23,343)
37	Adjustment to miscellaneous	(361,511)	(111,313)	(9,065)	(11,591)	(493,480)
38	Adjustment to depreciation expense	(595,076)	(424,121)	(53,178)	(53,221)	(1,125,597)
39	Adjustment to amortization expense - CIAC	0	0	0	(0)	0
40	Adjustment to amortization expense - PAA	(4,227)	188	(1,217)	(1,682)	(6,938)
41	Adjustment to franchise tax	(7,621)	(5,901)	177	195	(13,151)
42	Adjustment to property tax	(19,499)	(19,764)	(3,522)	(3,282)	(46,067)
43	Adjustment to payroll tax	(6,885)	(4,107)	(827)	(846)	(12,665)
44	Adjustment to reflect reg rate change impact on oper deduction	1,991	1,480	200	237	3,908
45	Adjustment to reflect regulatory rate change impact on rate base	821	818	66	145	1,850
46	Rounding	0	0	0	0	0
47	Revenue impact of Public Staff adjustments (Sum of L4 thru L46)	<u>(2,603,003)</u>	<u>(2,666,819)</u>	<u>(358,461)</u>	<u>(371,355)</u>	<u>(5,999,638)</u>
48	Increase/(decrease) per Public Staff (L3 + L47)	<u>\$ (1,096,439)</u>	<u>\$ (802,560)</u>	<u>\$ (123,008)</u>	<u>\$ 259,426</u>	<u>\$ (1,762,582)</u>
49	Adjustment to Statutory Cap Limited	<u>0</u>	<u>0</u>	<u>\$ (7,408)</u>	<u>\$ (472,015)</u>	<u>\$ (479,423)</u>
50	Increase/(decrease) to Revenue Requirement (L48+L49)	<u>\$ (1,096,439)</u>	<u>\$ (802,560)</u>	<u>\$ (130,416)</u>	<u>\$ (212,590)</u>	<u>\$ (2,242,005)</u>

CAROLINA WATER SERVICE, INC. OF NC
Docket No. W-354, Sub 384
CALCULATION OF GROSS REVENUE
IMPACT OF PUBLIC STAFF ADJUSTMENTS
For The Rate Year Ended March 31, 2026

Public Staff WSIP Exhibit 1
Schedule RY 3

Rate Year 3

Line No.	Item	CWSNC Water (a)	CWSNC Sewer (b)	BF/FH/TC Water (c)	BF/FH/TC Sewer (d)	Total
1	Increase/(decrease) in total revenue per Company application	\$ 1,041,973	\$ 1,131,288	\$ 101,601	\$ 133,312	\$ 2,408,174
2	Company 9.19.22 updates	241,443	430,518	75,692	291,888	1,039,541
3	Increase/(decrease) in total revenue per Company updates	1,283,416	1,561,806	177,293	425,200	3,447,715
4	Difference in calculation of revenue requirement based on Company amounts	(1)	1	(1)	(0)	(2)
5	Adjust capital structure to 50% debt and 50% equity	0	0	0	0	0
6	Adjust return on equity from 10.70% to 9.25%	(905,554)	(953,317)	(77,553)	(177,150)	(2,113,574)
7	Adjust debt cost rate from 4.64% to 4.64%	0	0	0	0	0
8	Adjustment to uncollectibles	(77,469)	(132,355)	19,681	(40,939)	(231,082)
9	Adjustment to forfeited discounts	10,712	(3,435)	181	211	7,669
10	Adjustment to miscellaneous revenues	(18,373)	(10,961)	(1,182)	(1,210)	(31,726)
11	Update revenues to 8/31/2022	1,049,476	1,042,569	30,107	443,998	2,566,150
12	Adjustment to plant in service	(524,530)	183,502	(58,655)	(104,244)	(503,927)
13	Adjustment to accumulated depreciation	(726,548)	(852,523)	(91,893)	(140,258)	(1,811,221)
14	Adjustment to cash working capital	(17,267)	(7,198)	(429)	(2,144)	(27,038)
15	Adjustment to deferred charges	(33,741)	(21,618)	(4,435)	(4,752)	(64,546)
16	Adjustment to average tax accruals	(13,798)	(11,169)	(956)	(225)	(26,148)
17	Adjustment to PAA	12,304	506	(971)	(3,746)	8,093
18	Adjustment to CIAC	32,668	25,762	3,802	6,743	68,975
19	Adjustment to ADIT	31,543	(12,268)	(2,291)	(5,108)	11,877
20	Adjustment to EDIT	(84,353)	(50,326)	(11,161)	(11,423)	(157,263)
21	Adjustment to purchased power	(37,854)	(53,439)	(5,073)	(13,711)	(110,079)
22	Adjustment to purchased water/sewer	0	0	0	0	0
23	Adjustment to maintenance and repair	(41,585)	(109,858)	(3,039)	(64,003)	(218,484)
24	Adjustment to maintenance testing	(12,699)	(14,751)	(645)	(1,869)	(29,964)
25	Adjustment to meter reading	(27,609)	(203)	(4,109)	(109)	(32,030)
26	Adjustment to chemicals	(85,189)	(32,973)	(3,331)	(9,675)	(131,168)
27	Adjustment to transportation	(42,021)	(21,506)	(8,991)	(9,912)	(82,431)
28	Adjustment to capitalized time	(7,506)	(4,478)	(902)	(924)	(13,808)
29	Adjustment to outside services - other	(23,208)	(12,266)	(2,135)	(2,641)	(40,250)
30	Adjustment to general salaries and wages	(85,228)	(50,848)	(10,240)	(10,482)	(156,797)

31	Adjustment to office supplies and other office exp.	(21,926)	(9,761)	(2,344)	(2,929)	(36,959)
32	Adjustment to regulatory commission expense	(287,813)	(170,548)	(36,097)	(37,179)	(531,637)
33	Adjustment to pension and benefits	(98,579)	(49,077)	(11,639)	(13,602)	(172,897)
34	Adjustment to rent	(9,341)	(5,573)	(1,609)	(2,014)	(18,536)
35	Adjustment to insurance	(27,478)	(31,265)	(18,842)	(17,429)	(95,014)
36	Adjustment to office utility	(15,999)	(7,187)	(1,499)	(1,854)	(26,539)
37	Adjustment to miscellaneous	(402,374)	(118,023)	(12,639)	(17,690)	(550,727)
38	Adjustment to depreciation expense	(677,572)	(325,539)	(72,756)	(108,968)	(1,184,834)
39	Adjustment to amortization expense - CIAC	0	0	0	(0)	0
40	Adjustment to amortization expense - PAA	(4,651)	314	(1,338)	(2,019)	(7,694)
41	Adjustment to franchise tax	(9,766)	(7,303)	225	255	(16,589)
42	Adjustment to property tax	(28,495)	(31,465)	(4,491)	(5,094)	(69,545)
43	Adjustment to payroll tax	(7,091)	(4,230)	(852)	(872)	(13,045)
44	Adjustment to reflect reg rate change impact on oper deduction	2,056	1,523	208	251	4,038
45	Adjustment to reflect regulatory rate change impact on rate base	884	931	77	172	2,064
46	Rounding	0	0	0	0	0
47	Revenue impact of Public Staff adjustments (Sum of L4 thru L46)	<u>(3,215,975)</u>	<u>(1,860,357)</u>	<u>(397,815)</u>	<u>(362,539)</u>	<u>(5,836,686)</u>
48	Increase/(decrease) per Public Staff (L3 + L47)	<u>\$ (1,932,559)</u>	<u>\$ (298,551)</u>	<u>\$ (220,522)</u>	<u>\$ 62,661</u>	<u>\$ (2,388,971)</u>
49	Adjustment to Statutory Cap Limited	<u>0</u>	<u>(749,483)</u>	<u>0</u>	<u>(380,801)</u>	<u>\$ (1,130,284)</u>
50	Increase/(decrease) to Revenue Requirement (L48+L49)	<u>\$ (1,932,559)</u>	<u>\$ (1,048,034)</u>	<u>\$ (220,522)</u>	<u>\$ (318,140)</u>	<u>\$ (3,519,254)</u>

Corix and SouthWest Water to Combine Water and Wastewater Assets in Merger of Equals

Combines Two Strong Water and Wastewater Utilities with Shared Commitment to Safety, Reliability and Sustainability

VANCOUVER, British Columbia and SUGAR LAND, Texas – August 29, 2022 – Corix Infrastructure, Inc. (“Corix”) and SouthWest Water Company (“SouthWest Water”) today announced they have entered into a definitive agreement under which SouthWest Water and Corix’s water and wastewater businesses will combine in a merger of equals to create a leading regulated water and wastewater utility.

The combined company will have more than 1,300 employees serving more than 1.3 million people across 20 U.S. states and two Canadian provinces. The increased scale and enhanced financial foundation of the combined company will facilitate long-term investments required to continue to grow and provide water and wastewater services in these communities. These investments, together with the leveraging of best practices and operating expertise of both companies, will support the safe, reliable and sustainable delivery of critical water and wastewater services and will enhance the customer experience.

Lisa Sparrow, President and Chief Executive Officer of Corix, said, “This combination brings together two complementary businesses to create a leading water and wastewater utility in an industry ripe for prudent investment. The new company will have the scale to make important infrastructure investments for the benefit of the customers and communities we serve. Corix and SouthWest Water share common values centered on safety, environmental stewardship, integrity, employee empowerment and excellence in how we deliver on our commitments.”

Rob MacLean, President and Chief Executive Officer of SouthWest Water, said, “As one company, SouthWest Water and Corix’s regulated utilities will have deeper resources and capabilities to invest in the sector for the long term. The infrastructure improvements we can make together as a combined company will ensure best-in-class service and high-quality water and wastewater services that are safe, reliable and sustainable. This is an exciting path forward as we build on our leadership in operating and investing in water and wastewater services, bringing long-term benefits for our customers, vital solutions to our communities and new career opportunities for our employees as part of a larger, stronger and more resilient organization.”

The transaction is expected to close by the end of 2023, subject to the satisfaction of all required regulatory approvals and customary closing conditions.

Upon closing of the transaction, Mr. MacLean will become President and Chief Executive Officer of the combined company. Other members of the combined company’s management team will be announced at a later time and are expected to reflect talent from both organizations.

Ms. Sparrow will continue to lead Corix through the closing of the transaction. Following the close, Corix’s District Energy business and joint ventures, which are not included in the transaction, will retain the Corix name, and Ms. Sparrow will continue in her role as President and Chief Executive Officer of Corix.

The combined company will be headquartered in Sugar Land, Texas, and Corix's current office in Chicago, Illinois will serve as the hub of the combined company's shared service operations. The combined company will maintain an operating presence in each of its service territories.

Corix's District Energy business and joint ventures will remain headquartered in Vancouver, British Columbia.

About Corix

Corix Infrastructure, Inc. is a leading provider of sustainable water, wastewater, and district energy solutions, serving small-to-medium-sized communities across the U.S. and Canada. Corix develops, finances, constructs, owns, operates and maintains local utility infrastructure on behalf of municipal, residential, military and commercial customers, through regulated utility and contract (unregulated) utility business models. For more information, visit www.corix.com.

About SouthWest Water Company

SouthWest Water Company owns and operates regulated water and wastewater systems in seven states. More than 500,000 people depend on SouthWest Water for high-quality, reliable service. Additional information may be found on the Company's website: www.swwc.com.

Contacts

Corix

847-313-9168

tom.oakley@corix.com

SouthWest Water Company

281-207-5811

cjackson@swwc.com

CWSNC WATER OPERATIONS

CWS - NC Uniform

Water

W-354, Sub 400

Public Staff WSIP Exhibit 3

Page 1 of 4

Line No.	Oracle Account No.	Item	Base Case	CIP Additions Net of Retirements				Subtotal	Recurring Spend
				Rate Year 1	Rate Year 2	Rate Year 3			
1.	141201	Organization	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2.	141202	Franchises	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
3.	141102	Land & land rights pump	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
4.	141501	Computer Hardware	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
5.	141502	Desktop/Laptop Computers	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6.	141101	Land & land rights gen. plt.	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
7.	141204	Struct & improv. src. supply	\$ -	\$ 352,406	\$ 943,772	\$ -	\$ 1,296,178	\$ 37,705	\$ -
8.	141205	Struct & improv. wtr. trt. plt.	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 53,853
9.	141206	Struct & improv. trans. dist.	\$ 417,396	\$ -	\$ -	\$ -	\$ 417,396	\$ 7,474	\$ -
10.	141203	Struct & improv. gen. plt.	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 15,826
11.	141221	Collecting reservoirs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
12.	141223	Wells & springs	\$ -	\$ 879,062	\$ 834,744	\$ -	\$ 1,713,805	\$ 60,702	\$ -
13.	141224	Infiltration gallery	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
14.	141225	Supply mains	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 98,437
15.	141226	Power generation equip.	\$ -	\$ -	\$ -	\$ 220,500	\$ 220,500	\$ 688	\$ -
16.	141227	Electric pump equip. src. plt.	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 58,765
17.	141228	Electric pump equip. wtp.	\$ -	\$ 150,190	\$ -	\$ -	\$ 150,190	\$ 274,091	\$ -
18.	141229	Electric pump equip. trans.	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 110,530
19.	141230	Water treatment equip.	\$ 78,605	\$ 624,181	\$ -	\$ -	\$ 702,786	\$ 174,778	\$ -
20.	141231	Dist. resv. & standpipes	\$ 892,291	\$ 13,436	\$ -	\$ -	\$ 905,727	\$ 135,862	\$ -
21.	141232	Trans. & distr. mains	\$ 193,697	\$ 3,284,627	\$ 2,829,781	\$ 1,849,159	\$ 8,157,264	\$ -	\$ -
22.	141233	Service lines	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
23.	141234	Meters	\$ -	\$ 2,851,037	\$ 2,470,500	\$ -	\$ 5,321,537	\$ -	\$ -
24.	141235	Meter installations	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
25.	141236	Hydrants	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 51,631
26.	141237	Backflow prevention devic.	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,552
27.	141268	Other plt. & misc. equip. src. su.	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
28.	141269	Other plt. & misc. equip. wtp.	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
29.	141220	Office struct & improv.	\$ -	\$ 225,000	\$ -	\$ -	\$ 225,000	\$ -	\$ -
30.	141303	Office furn. & equip.	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
31.	141305	Stores equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,811
32.	141308	Tool shop & misc. equip.	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 6,254
33.	141306	Laboratory equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,471
34.	141309	Power operated equip.	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,854
35.	141310	Communication equip.	\$ -	\$ 992,226	\$ 45,913	\$ 242,707	\$ 1,280,845	\$ 2,300	\$ -
36.	141311	Misc. equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,712
37.	141278	Water plant allocated	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
38.	141271	Other tangible plt. water	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
39.	141248	Receiving Wells	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
40.	141401	Transportation equip.	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
41.	141503	Mainframe computer - wtr	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
42.	141504	Mini computer - wtr	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
43.	141602	Comp. system cost - wtr	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
44.	141603	Micro system cost - wtr	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
45.	141255	Plant Sewers Treatment Plt	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
46.	141299	Utility Plant Clearing	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
47.	141699	Computer Clearing	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
48.	141601	Computer Software	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
49.	141103	Land and Rights Water	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
50.	141104	Land and Rights Trans	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
51.	141293	Plant Held for Future Use	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
52.	141399	Building and Equipment Clearing	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
53.		Total plant in service (Sum of L1 thru L52)	\$ 1,581,989	\$ 9,372,163	\$ 7,124,711	\$ 2,312,366	\$ 20,391,228	\$ 1,106,294	\$ -

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Dec 05 2022

CWSNC SEWER OPERATIONS

CWS - NC Uniform

Sewer

W-354, Sub 400

Public Staff - WSIP Exhibit 3

Page 2 of 4

Line No.	Oracle Account No.	Item	Base Case	Rate Year 1	Rate Year 2	Rate Year 3	Subtotal	Recurring Spend
1.	141201	Organization	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2.	141202	Franchises intang. plt.	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
3.	141107	Land & land rights trtmnt plt	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
4.	141108	Land & land rights reclaim.	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
5.	141101	Land and Rights General	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6.	141207	Struct/improv. coll. plt.	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,698
7.	141208	Struct/improv. pump plt. ls.	\$ 460,239	\$ 136,797	\$ 1,933,675	\$ 322,576	\$ 2,853,288	\$ 40,339
8.	141209	Struct/improv. treat. plt.	\$ -	\$ 10,421,474	\$ 1,495,523	\$ 14,855,904	\$ 26,772,901	\$ 47,851
9.	141210	Struct/improv. reclaim. wtp.	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10.	141211	Struct/improv. reclaim. wtr.	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 218
11.	141203	Struct/improv. gen. plt.	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 28,601
12.	141238	Power gen. equip. coll. plt.	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
13.	141239	Power gen. equip. pump plt.	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 135
14.	141240	Power gen. equip. treat. plt.	\$ -	\$ -	\$ -	\$ 95,999	\$ 95,999	\$ 7,522
15.	141241	Sewer force main/serv. lin.	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 53,345
16.	141242	Sewer gravity main	\$ 1,231,386	\$ 3,241,919	\$ -	\$ 980,364	\$ 5,453,670	\$ -
17.	141243	Manholes	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
18.	141244	Special coll. structures	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 281
19.	141245	Services to customers	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
20.	141246	Flow measure devices	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 6,869
21.	141247	Flow measure install	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 20
22.	141248	Receiving wells	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 35,970
23.	141249	Pumping equipment pump plt.	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 175,804
24.	141250	Pumping equipment reclaim.	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 621
25.	141251	Pumping equipment rcl. wtr.	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,964
26.	141252	Treat /disp. equip. lagoon	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,641
27.	141253	Treat /disp. equip. trt. plt.	\$ 77,227	\$ 1,568,304	\$ 579,834	\$ -	\$ 2,225,364	\$ 236,729
28.	141254	Treat /disp. equip. rct. wtp.	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,102
29.	141255	Plant sewers treat. plt.	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 55,197
30.	141256	Plant sewers reclaim wtp.	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 187
31.	141257	Outfall lines	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 35,998
32.	141271	Other plt. tangible	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,585
33.	141272	Other plt. collection	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 86
34.	141273	Other plt. pump	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,300
35.	141274	Other plt. treatment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 16,146
36.	141275	Other plt. reclaim wtr. trt.	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
37.	141276	Other plt. reclaim wtr. dis.	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
38.	141220	Office struct & improv.	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
39.	141303	Office furn. & equip.	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
40.	141305	Stores equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 612
41.	141308	Tool shop & misc. equip.	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,723
42.	141306	Laboratory equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,213
43.	141309	Power operated equip.	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 18,912
44.	141310	Communication equip.	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,129
45.	141311	Misc equip. sewer	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,891
46.	141278	Sewer plant allocated	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
47.	0	Other tangible plt. sewer	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
48.	141263	Reuse dist. reservoirs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 26
49.	141264	Reuse transmission & dist.	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 8,705
50.	141401	Transportation equip.	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
51.	141502	Desktop computer - wtr	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
52.	141503	Mainframe computer - wtr	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
53.	141504	Mini computer - wtr	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
54.	141602	Comp. system cost - wtr	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
55.	141603	Micro system cost - wtr	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
56.	141501	Computer Hardware	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
57.	141601	Computer Software	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
58.	141699	Computer Clearing	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
59.	141231	Dist Resv and Standpipes	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
60.	141232	Trans and Distr Mains	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
61.	141299	Utility Plant Clearing	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
62.	141399	Building and Equipment Clearing	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
63.	141233	Service Lines	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
64.	141293	Plt. held for future use	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
65.		Total plant in service (Sum of L1 thru L64)	\$ 1,768,852	\$ 15,368,494	\$ 4,009,032	\$ 16,254,843	\$ 37,401,222	\$ 810,421

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Dec 05 2022

BF/FH/TC WATER OPERATIONS
BF-FH-TC Water

W-354, Sub 400
Public Staff - WSIP Exhibit 3

Page 3 of 4

Line No.	No.	Item	Base Case	CIP Additions Net of Retirements			Subtotal	Recurring Spend
				Rate Year 1	Rate Year 2	Rate Year 3		
1.	141101	Land and Rights General	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2.	141102	Land and Rights Pump	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
3.	141201	Organization	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
4.	141202	Franchises	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
5.	141203	Struct and Improv General Plant	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 368
6.	141204	Struct and Improv Service Supplies	\$ -	\$ -	\$ 67,778	\$ -	\$ 67,778	\$ 11,590
7.	141205	Struct and Improv Water Treat Plt	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,145
8.	141206	Struct and Improv Trans Dist Plt	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
9.	141220	Struct and Improv Office	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10.	141223	Wells and Springs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 8,003
11.	141225	Supply Mains	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,118
12.	141227	Electric Pump Equip Src Pump	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,058
13.	141228	Electric Pump Equip WTP	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 10,750
14.	141229	Electric Pump Equip Trans Dist	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,853
15.	141230	Water Treatment Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,699
16.	141231	Dist Resv and Standpipes	\$ -	\$ 1,779,932	\$ -	\$ -	\$ 1,779,932	\$ 22,916
17.	141232	Trans and Distr Mains	\$ 80,268	\$ 165,429	\$ -	\$ 165,448	\$ 411,144	\$ 33,067
18.	141233	Service Lines	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
19.	141234	Meters	\$ -	\$ 399,046	\$ 659,711	\$ -	\$ 1,058,756	\$ -
20.	141235	Meter Installations	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
21.	141236	Hydrants	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,728
22.	141237	Backflow Prevention Devices	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 41
23.	141299	Utility Plant Clearing	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
24.	141303	Office Furniture	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
25.	141305	Stores Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 25
26.	141306	Lab Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 343
27.	141308	Tool Shop Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 652
28.	141309	Power Operated Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 947
29.	141310	Communications Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 6,056
30.	141311	Misc Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 92
31.	141401	Vehicles	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
32.	141501	Computer Hardware	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
33.	141502	Desktop/Laptop Computers	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
34.	141503	Mainframe Computers	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
35.	141504	Mini Comp Wtr	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
36.	141601	Computer Software	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
37.	141602	Comp Systems	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
38.	141603	Micro Systems	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
39.	141699	Computer Clearing	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
40.	141221	Collecting Reservoirs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
41.	141269	Other and Misc Equip WTP	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
42.	141399	Building and Equipment Clearing	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
43.		Total plant in service (Sum of L1 thru L42)	\$ 80,268	\$ 2,344,406	\$ 727,489	\$ 165,448	\$ 3,317,611	\$ 113,452

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Dec 05 2022

BF/FH/TC SEWER OPERATIONS
BF-FH-TC Sewer

W-354, Sub 400
Public Staff - WSIP Exhibit 3

Page 4 of 4

Line No.	No.	Item	Base Case	CIP Additions Net of Retirements			Subtotal	Recurring Spend
				Rate Year 1	Rate Year 2	Rate Year 3		
1.	141201	Organization	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2.	141202	Franchises	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
3.	141203	Struct and Improv General Plant	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 18,300
4.	141207	Struct and Improv Collect Plant	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
5.	141208	Struct and Improv Pump Plant	\$ -	\$ -	\$ 456,640	\$ -	\$ 456,640	\$ 2,622
6.	141209	Struct and Improv Treatment Plant	\$ -	\$ -	\$ 5,185,765	\$ -	\$ 5,185,765	\$ 10,802
7.	141211	Struct and Improv Reclaim Wtr Dist	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
8.	141220	Struct and Improv Office	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
9.	141227	Electric Pump Equip Src Pump	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10.	141230	Water Treatment Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
11.	141231	Dist Resv and Standpipes	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
12.	141232	Trans and Distr Mains	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
13.	141239	Power Gen Equip Pump Plt	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 119
14.	141241	Sewer Force Main	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 10,061
15.	141242	Sewer Gravity Main	\$ -	\$ 903,019	\$ -	\$ 385,203	\$ 1,288,223	\$ -
16.	141243	Manholes	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
17.	141244	Special Collection Structures	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
18.	141245	Service to Customers	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
19.	141246	Flow Measure Devices	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 166
20.	141249	Pumping Equip Pump Plt	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 10,573
21.	141250	Pumping Equip Reclaim WTP	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 9,041
22.	141252	Treat/Disp Equip Lagoon	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
23.	141253	Treat/Disp Equip Trt Plt	\$ -	\$ 118,987	\$ -	\$ -	\$ 118,987	\$ 24,806
24.	141255	Plant Sewers Treatment Plt	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 6,881
25.	141257	Outfall Lines	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 9,613
26.	141263	Reuse Dist Reservoirs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
27.	141264	Reuse Transmission and Dist	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 354
28.	141271	Other Tangible Plant	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
29.	141272	Other Plant Collection	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
30.	141273	Other Plant Pump	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
31.	141275	Other Plant Reclaim Water Trt	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 834
32.	141299	Utility Plant Clearing	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
33.	141303	Office Furniture	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
34.	141305	Stores Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 10
35.	141306	Lab Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
36.	141308	Tool Shop Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 590
37.	141309	Power Operated Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 974
38.	141310	Communications Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 7,261
39.	141311	Misc Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,076
40.	141399	Building and Equipment Clearing	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
41.	141401	Vehicles	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
42.	141501	Computer Hardware	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
43.	141502	Desktop/Laptop Computers	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
44.	141503	Mainframe Computers	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
45.	141504	Mini Comp Wtr	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
46.	141601	Computer Software	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
47.	141602	Comp Systems	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
48.	141603	Micro Systems	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
49.	141699	Computer Clearing	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
50.	141251	Pumping Equip Rcl Wtr Dist	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
51.	141254	Treat/Disp Equip Rclm Wtr	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
52.		Total plant in service (Sum of L1 thru L51)	\$ -	\$ 1,022,006	\$ 5,642,405	\$ 385,203	\$ 7,049,615	\$ 115,083

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Dec 05 2022

Carolina Water Service of North Carolina, Inc.
Docket No. W-354, Sub 400
Public Staff Data Request No. 65
Date Requested: October 12, 2022
Date Due: October 19, 2022

Public Staff Technical Contact: Chuck Junis
Phone #: (919) 733-0891
Email: charles.junis@psncuc.nc.gov

Public Staff Legal Contacts: Reita Coxton
Phone #: (919) 733-0970
Email: reita.coxton@psncuc.nc.gov

Gina Holt
Phone #: (919) 733-0971
Email: gina.holt@psncuc.nc.gov

John Little
Phone#: (919) 733-0976
Email: john.little@psncuc.nc.gov

Please provide all responses to this request in searchable native electronic format (e.g., Excel, Word, or PDF files). If in Excel format, please include all working formulas. In addition, please include: (1) the name and title of the individual who has the responsibility for the subject matter addressed therein; and (2) the identity of the person making the response by name, occupation, and job title. Please also refer to Public Staff Data Request 1 for instructions for responding to this and all other Data Requests served on the Company by the Public Staff in the above-captioned proceeding.

Topic: Performance Metrics

1. Exhibit DHD-1 to the testimony of CWSNC witness Donald Denton provides metric results indicating Company performance in the areas of Operational Compliance, Customer Service, Service Reliability and Workforce Health and Safety for Q2 2019 through Q1 2022.
 - a. Please provide a copy of Exhibit DHD-1 in native format with working formulas as requested in Public Staff Data Request 1, Question 6.

Response: Copy of DHD-1 in native format with working formulas have been provided to the Public Staff and uploaded to the DR#1 -> Testimony -> DHD-1 Folder.

- b. Does the Company currently have in place any employee/executive-level incentives or penalties for performance within certain parameters of the

proposed prescribed performance metric (metric) categories set forth in DHD-1? If so, please describe in detail the specific incentives and/or penalties for the prescribed proposed metric categories, when the company instituted the metric, and whether incentives or penalties are enforced quarterly or yearly. Identify who is ultimately responsible for performance in the metric categories set forth in DHD-1.

Response: While CWSNC tracks many different metrics, employee/executive-level metrics involving incentives and penalties are at the responsible Business Unit (BU) (Atlantic in this case) and Corporate levels. Please see the EIP Policy provided in response to DR#45. CWSNC President Denton will be responsible for performance in the metric categories set forth in DHD-1.

- c. Does the Company currently have, or in the past have, in place other employee/executive-level metrics in addition to those proposed in DHD-1? If so, please describe in detail each metric, when each metric was instituted and/or discontinued, the incentives and penalties for each metric, and the nature of incentives or penalties for each quarter or year.

Response: CWSNC aggregates data and tracks a multitude of metrics, however there are no metrics that result in incentives or penalties at the CWSNC level other than those called out in the corporate scorecard or those adopted by individual managers for team/individual performance.

- d. Does the Company currently have in place metrics relating to attaining financial goals related to capital projects (e.g., metrics associated with maintaining projected capital budgets or completing projected capital projects within the time prescribed)? If so, please describe in detail each metric, when each metric was instituted and/or discontinued, the incentives and penalties for each metric, and the nature of incentives or penalties for each quarter or year.

Response: CWSNC strives to achieve project performance for schedule and cost, but does not have any incentivized metrics in relation to attaining financial goals related to specific capital projects.

2. Please provide the raw data used to calculate all of the metrics the Company included in its MYRP Application for 2019, 2020, 2021, and through June 30, 2022.

Response: Please see folder DR#65.2. Information which contains customer data is provided confidentially due to the sensitive nature of customer data. To the extent information is not provided the information is not readily available or readily presentable, as an example, training hours is an aggregation of data contained in the HSI training module.

3. With respect to the Company's proposed Operational Compliance Metrics, please identify the standard the Company plans to use for the following items:
 - a. The Water Compliance Rate % metric and
 - b. The Wastewater Compliance Rate % metric.

Response: The Compliance metrics are based on the AWWA Utility Benchmarking Regulatory Compliance, which is measured in the % of days in compliance with regulatory requirements. The Company has modified this measure to include a broader spectrum of operational events and activities that drive compliance status to be a more wholistic and actionable metric.

4. With respect to the Company's proposed Service Reliability Metrics, please describe the way in which the following items will be tracked:
 - a. Unplanned Water Service Disruptions and
 - b. The Number of Sanitary Sewer Overflows.

Response: Sanitary Sewer Overflows (SSOs) are recorded by field staff once identified and corrected and tracked. Unplanned Water Service Disruptions are not currently tracked and would be a new metric that is based on the recorded main breaks referenced in question #5.

5. With respect to the Company's proposed Service Reliability Metrics, please define the following items:
 - a. Recorded Lucity Water Main Breaks and
 - b. Wastewater SSOs.

Response: Sanitary Sewer Overflows (SSOs) are a release of untreated or partially treated sewage. Lucity Water Main Breaks are water main breaks that are recorded by field personnel in Lucity (OMS).

6. Please explain why the Company did not propose using the following metrics taken from the Corix 2021 Company Scorecard provided as part of the Company's response to PS DR No. 3:
 - a. % Contact Center Experience;
 - b. % Billing Accuracy & Timing;
 - c. Preventable Vehicles Incidents; and
 - d. Lost Time Injury Frequency.

Response: Two of these listed are very similar to ones proposed: TSF in lieu of % Contact Center Experience, and OSHA Case Rate vs. Lost Time Injury. An important distinction is that the Company Scorecard is not at the CWSNC operational level for all metrics. The CWSNC proposed performance metrics that are consistent with the statutory and rule-based WSIP requirements and that focus on safe, reliable, environmentally compliant, high quality customer service. We also include measures focused on ensuring a safe workplace environment for our employees.

7. Please explain why the thresholds and targets used in the Corix 2021 Company Scorecard are not appropriate for use as targets to measure the Company's performance for purposes of the Company's MYRP Application.

Response: The WSIP does not require that performance metrics include targets or benchmarks. The Company is proposing putting performance measures in place and monitoring the Company under those measures to gauge performance. Additionally, the Corix 2021 Company Scorecard data and metrics is at a Corix level, not the CWSNC operational level.

8. Please identify and provide a summary of data Corix, the Company, or both collect or compile related to the following topics:

Response: CWSNC has provided the below information on data collected or compiled at the CWSNC level and, where available, information known at the Corix or other BU levels. To the extent CWSNC does not note specific collections or compilations at the Corix level this information was not readily available.

- a. Responsible vehicle accidents;

Response: Corix collects and compiles data on any incident while operating a motor vehicle that occurs because driver failed to exercise every reasonable precaution to prevent the incident.

- b. Near misses;

Response: Corix and CWSNC have a robust safety culture and convenient methods for which to report near misses. This data is compiled and aggregated at the Corix and CWSNC levels.

- c. Water loss or non-revenue water;

Response: Water loss or non-revenue water is tracked and aggregated at the Atlantic operational level (NC/SC) and other regional levels on a quarterly basis. CWSNC water loss data was provided in DR#63 for purchased water systems.

- d. Percent of calls abandoned by customers;

Response: Customer experience team tracks the number of calls abandoned by customers and tracks it by call and business unit. This information can be filtered down to the North Carolina level through available reporting. This information is available and provided in the supporting information for the TSF% performance metric recommended by CWSNC.

- e. Bad debt as a percentage of service revenues;

Response: CWSNC does not collect or compile this data as a metric but has the underlying supporting data and has made this calculation as it relates to flowing through rate case exhibits and modeling.

- f. Accounts Receivable outstanding for more than 90 days;

Response: CWSNC does not compile this information on a regular basis but has the supporting data available from the CC&B billing system. NCUC disconnect reporting requires reporting on AR balances outstanding for more than 90 days for residential customers on a monthly basis. CWSNC is unaware of any other specific use cases for that data.

- g. Cybersecurity risk;

Response: CWSNC does not collect or compile data related to this topic.

- h. Employee turnover;

Response: CWSNC does not collect or compile data related to this topic. Oracle Fusion ERP includes a robust people management system in which data or reports related to employee turnover could be generated.

- i. Secondary water quality standard violations;

Response: CWSNC regularly samples for secondary water contaminants and monitors those levels. CWSNC collects and compiles data on secondary water quality contaminants, NODs, and secondary water quality complaints from customers.

- j. Capital budget variances;
- k. Operating budget variances;

Response: CWSNC and other Corix business units collect and compile capital budget variances and operating budget variances and provides those variances to corporate management on a monthly basis as part of the rolling forecast process. That information is collected or compiled by corporate management at the business unit or higher levels and not necessarily at a state specific level.

- l. Budgeted Cost of Work Scheduled;
- m. Budgeted Cost of Work Performed;

Response: CWSNC understands the two above categories (l and m) and associated data points revolve around earned value project management. CWSNC does not utilize earned value project management and does not collect or compile information in these categories. CWSNC monitors changes in projected in-service dates for capital projects

but not to the point of Schedule Variances. Corix does not collect or compile information on earned value management.

- n. Capital project cost variances;

Response: CWSNC and other Corix business units collect and compile capital project cost variances and provides those variances to corporate on a monthly basis as part of the rolling forecast process described in response to 8(j) above.

- o. Schedule Variances;
- p. Schedule Performance Index; and
- q. Cost Performance Index.

Response: CWSNC understands the three above categories and data points revolve around earned value project management. CWSNC does not utilize earned value project management and does not collect or compile information in these categories. CWSNC monitors changes in projected in service dates for capital projects but not to the point of Schedule Variances. Corix does not collect or compile information on earned value management.

9. Please explain why the Company did not propose metrics related to the following items:
- a. Responsible vehicle accidents;
 - b. Near misses;
 - c. Water loss or non-revenue water;
 - d. Percent of calls abandoned by customers;
 - e. Bad debt as a percentage of service revenues;
 - f. Accounts Receivable outstanding for more than 90 days;
 - g. Cybersecurity risk;
 - h. Employee turnover;
 - i. Secondary water quality standard violations;
 - j. Capital budget variances;
 - k. Operating budget variances;
 - l. Budgeted Cost of Work Scheduled;
 - m. Budgeted Cost of Work Performed;
 - n. Capital project cost variances;
 - o. Schedule Variances;
 - p. Schedule Performance Index; and
 - q. Cost Performance Index.

Response: The Company proposed performance metrics that are consistent with the statutory and rule-based WSIP requirements and that focus on safe, reliable, environmentally compliant, high quality customer service. We also include measures focused on ensuring a safe workplace environment for our employees.

Several of the above metrics may not fall readily into the four categories of metrics required by the WSIP (Operational Compliance, Customer Service, Service Reliability, Workforce Health and Safety).

Gen. Stat. § 62-133.1B(a) requires as a core component of a WSIP the inclusion of "... performance-based metrics that benefit customers and ensure the provision of safe, reliable, and cost-effective service by the water or sewer utility." See also responses to subparts of question 8 above regarding availability of data.

10. Please provide the raw data referenced in Question #7 above (to the extent such data is compiled or collected) for 2019, 2020, 2021, and through June 30, 2022.

Response: The specific requested information is not compiled for 2019 - prior to 2020 the scorecard metrics were different. CWSNC does not readily have available and was not readily able to get raw data in support of question #7 at the corporate level. This information and data points are aggregated by a number of different departments and different sources to be rolled up to the scorecard at the corporate level. Attached and provided confidentially for reference is the 2020 and 2021 corporate scorecards as well as 2022 year to date. CWSNC would note that the specific data and information aggregated to the corporate level would largely not pertain to CWSNC operations or performance within CWSNC's control.

11. Please provide a comprehensive list of the factors considered when an employee's job performance is being evaluated for all job titles for which a job description was provided in the Company's response to Question #2 of PS DR No. 22.

Response: Please see folder DR#65.11 which includes documents provided by the People & Culture department responsive to employee job performance and evaluations. This information is being provided confidentially due to the sensitive business nature.

12. Please provide a comprehensive list of the data Corix, the Company, or both collect or compile about the Company's customer contact centers including, but not limited to, the number of calls received during a given time, the number of calls handled by agents, the number of calls handled by an interactive voice response system, the average hold time, the average call length, and first contact resolution percentages.

Response: Per our Customer Experience department, the following data is collected or compiled: Calls accepted, calls answered, total contacts answered within 60 secs, Target Service Factor (TSF), calls abandoned, calls abandoned after the first STI (Service Time Interval), average wait time, average talk time.

13. Please provide the raw data referenced in the foregoing question (to the extent such data is compiled or collected) for 2019, 2020, 2021, and through June 30, 2022.

Response: Please see attached folder DR#65.2 file NC_2019-2022 June_DNIS.xlsx.

14. Please provide a comprehensive list of other ways in which customers can contact the Company (e.g., via email, Contact Us web functionality, and messaging in the My Utility Connect interface).

Response: Contact Us web functionality, Notification system in the My Utility Connect interface, call in line, and email are the official methods customers can contact the Company. In addition, many times, customers interact and discuss issues with our operations team directly.

15. Please provide a comprehensive list of the data Corix, the Company, or both collect or compile about the other ways customers can contact the Company listed in response to Question #14 above, including, but not limited to, the number of contacts received during a given time, the average response time, and first contact resolution percentages.

Response: Corix and CWSNC collects or compiles data on number of contacts received and the notification status.

16. If Corix or the Company categorize customer contacts by customer concern, please provide that data for 2019, 2020, 2021, and through June 30, 2022.

Response: Please see folder DR#65.2 file Customer Complaint Master File.xlsx, provided confidentially due to the sensitive nature of customer information. This file is a comprehensive list of miscellaneous service investigations that are customer initiated. Column Q has a number of categorized customer concerns. Customer contacts that do not generate a field activity would not be on this list but would be included in the DINS list if via phone through the customer contact center.

Performance-Based Metrics

Public Staff Recommended PBMs

Description	Measure	Incentive/Penalty
Timely Completion of CIP Projects	Percentage of CIP Program projects in the approved WSIP incomplete during the planned rate year on a Company basis	Ten basis point ROE reduction to the high-end of the Commission authorized band if measure exceeds: 10% in Rate Year 1 20% in Rate Year 2 30% in Rate Year 3
Completion of CIP Projects on Budget	Percentage of CIP Program projects that cost in excess of 110% of the estimate in the approved WSIP on a Company basis	Ten basis point ROE reduction to the high-end of the band if measure exceeds: 10% in Rate Year 1 20% in Rate Year 2 30% in Rate Year 3
Expense Efficiency	Operation & Maintenance expense per customer on a Rate Division basis	Ten basis point ROE increase to the high-end of the band if Company meets/reduces actual expense level in comparison to the authorized
Utilization of the SRF Program	Whether the Company applied for SRF funds for all eligible projects	Ten basis point ROE reduction to high-end of the band for failure to apply for funding for eligible projects up to any NCDEQ imposed cap

Public Staff Modifications to CWSNC Proposed PBMs

Description	Measure	Incentive/Penalty
Safe Drinking Water Compliance	% days in compliance - (sum of all days - sum of all days out of compliance) / sum of all days Sum of all days = No. of systems x 365 days	Ten basis point ROE reduction to the high-end of the band if less than 100% compliance on Company basis
Clean Water Compliance	% days in Compliance - sum of all days - sum of all days out of compliance) / sum of all days	Ten basis point ROE reduction to the high-end of the band if less than 100% compliance on Company basis
Timely Answering of Customer Calls	Telephone service factor - calls answered within 60 seconds / total calls answered (tracked by quarter)	One basis point ROE increase to high-end of band for each quarter telephone service factor is 90% or more. One basis point ROE reduction to high-end of band for each quarter telephone service factor is 70% or less.
Water Service Quality Customer Complaints	Non-bill related customers complaints in specific categories (no water, air in water, discolored water, high/low pressure, mineral amount, taste/odor, and water quality) / (active accounts / 1,000). Underlying data should incorporate subdivision and system name.	None

Public Staff Acceptance of CWSNC Proposed PBMs

Description	Measure	Incentive/Penalty
Water Service Disruptions	Unplanned water service disruption - recorded Lucity water main breaks / 1000 accounts	None
Sewer Overflows	Number of sanitary sewer overflows (SSOs) - wastewater SSOs / (100 miles of gravity line)	None
Employee Safety	OSHA incident rate - (number of injuries and illnesses * 200,000 / 4) / employee hours worked	None
Employee Training	Employee training – hours of employee training / employee	None

Public Staff Recommended PBMs for Tracking and Future Benchmarking

Description	Measure	Incentive/Penalty
Water Loss	Water produced/purchased – water sold / water produced/purchased	None
Employee Turnover	Number of employees that leave / total number of employees for same time period	None

Cost of Equity

<u>DCF Method</u>		
Based on Average Historical		9.4%
Based on Historical & Forecasted Growth Rates		9.1%
Based on Predicted Growth Rates		8.6%
	Average	9.0%
<u>Risk Premium Method</u>		
		9.9%
Average of DCF and Risk Premium		
		9.45%
WSIP Adjustment		
		0.20%
Recommended Cost of Equity		
		9.25%

RATING
METHODOLOGY

Regulated Electric and Gas Utilities

Table of Contents:

SUMMARY	1
ABOUT THE RATED UNIVERSE	3
ABOUT THIS RATING METHODOLOGY	4
DISCUSSION OF THE GRID FACTORS	6
APPENDIX A: REGULATED ELECTRIC AND GAS UTILITIES METHODOLOGY FACTOR GRID	29
APPENDIX B: APPROACH TO RATINGS WITHIN A UTILITY FAMILY	35
APPENDIX C: BRIEF DESCRIPTIONS OF THE TYPES OF COMPANIES RATED UNDER THIS METHODOLOGY	38
APPENDIX D: KEY INDUSTRY ISSUES OVER THE INTERMEDIATE TERM	40
APPENDIX E: REGIONAL AND OTHER CONSIDERATIONS	44
APPENDIX F: TREATMENT OF POWER PURCHASE AGREEMENTS ("PPAs")	46
METHODS FOR ESTIMATING A LIABILITY AMOUNT FOR PPAS	48
MOODY'S RELATED RESEARCH	49

Analyst Contacts:

NEW YORK	+1.212.553.1653
Michael G. Haggarty	+1.212.553.7172
Associate Managing Director	michael.haggarty@moodys.com
Jim Hempstead	+1.212.553.4318
Managing Director – Utilities	ames.hempstead@moodys.com
Walter Winrow	+1.212.553.7943
Managing Director – Global Project and Infrastructure Finance	walter.winrow@moodys.com
Jeffrey Cassella	+1.212.553.1665
Vice President – Senior Analyst	effrey.cassella@moodys.com
Natividad Martel	+1.212.553.4561
Vice President – Senior Analyst	natividad.martel@moodys.com

» contacts continued on the last page

This rating methodology replaces "Regulated Electric and Gas Utilities" last revised on December 23, 2013. We have updated some outdated links and removed certain issuer-specific information.

Summary

This rating methodology explains our approach to assessing credit risk for regulated electric and gas utilities globally. This document does not include an exhaustive treatment of all factors that are reflected in our ratings but should enable the reader to understand the qualitative considerations and financial information and ratios that are usually most important for ratings in this sector.¹

This report includes a detailed rating grid which is a reference tool that can be used to approximate credit profiles within the regulated electric and gas utility sector in most cases. The grid provides summarized guidance for the factors that are generally most important in assigning ratings to companies in the regulated electric and gas utility industry. However, the grid is a summary that does not include every rating consideration. The weights shown for each factor in the grid represent an approximation of their importance for rating decisions but actual importance may vary substantially. In addition, the grid in this document uses historical results while ratings are based on our forward-looking expectations. As a result, the grid-indicated rating is not expected to match the actual rating of each company.

¹ This update may not be effective in some jurisdictions until certain requirements are met.

The grid contains four key factors that are important in our assessment for ratings in the regulated electric and gas utility sector:

1. Regulatory Framework
2. Ability to Recover Costs and Earn Returns
3. Diversification
4. Financial Strength

Some of these factors also encompass a number of sub-factors. There is also a notching factor for holding company structural subordination.

This rating methodology is not intended to be an exhaustive discussion of all factors that our analysts consider in assigning ratings in this sector. We note that our analysis for ratings in this sector covers factors that are common across all industries such as ownership, management, liquidity, corporate legal structure, governance and country related risks which are not explained in detail in this document, as well as factors that can be meaningful on a company-specific basis. Our ratings consider these and other qualitative considerations that do not lend themselves to a transparent presentation in a grid format. The grid used for this methodology reflects a decision to favor a relatively simple and transparent presentation rather than a more complex grid that might map grid-indicated ratings more closely to actual ratings.

Highlights of this report include:

- » An overview of the rated universe
- » A summary of the rating methodology
- » A discussion of the key rating factors that drive ratings
- » Comments on the rating methodology assumptions and limitations, including a discussion of rating considerations that are not included in the grid

The Appendices show the full grid (Appendix A), our approach to ratings within a utility family (Appendix B), a description of the various types of companies rated under this methodology (Appendix C), key industry issues over the intermediate term (Appendix D), regional and other considerations (Appendix E), and treatment of power purchase agreements (Appendix F).

This methodology describes the analytical framework used in determining credit ratings. In some instances our analysis is also guided by additional publications which describe our approach for analytical considerations that are not specific to any single sector. Examples of such considerations include but are not limited to: the assignment of short-term ratings, the relative ranking of different classes of debt and hybrid securities, how sovereign credit quality affects non-sovereign issuers, and the assessment of credit support from other entities. A link to documents that describe our approach to such cross-sector credit rating methodological considerations can be found in the Related Research section of this report.

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the ratings tab on the Issuer/entity page on www.moodys.com for the most updated credit rating action information and rating history.

About the Rated Universe

The Regulated Electric and Gas Utilities rating methodology applies to rate-regulated² electric and gas utilities that are not Networks³. Regulated Electric and Gas Utilities are companies whose predominant⁴⁵ business is the sale of electricity and/or gas or related services under a rate-regulated framework, in most cases to retail customers. Also included under this methodology are rate-regulated utilities that own generating assets as any material part of their business, utilities whose charges or bills to customers include a meaningful component related to the electric or gas commodity, utilities whose rates are regulated at a sub-sovereign level (e.g. by provinces, states or municipalities), and companies providing an independent system operator function to an electric grid. Companies rated under this methodology are primarily rate-regulated monopolies or, in certain circumstances, companies that may not be outright monopolies but where government regulation effectively sets prices and limits competition.

This rating methodology covers regulated electric and gas utilities worldwide. These companies are engaged in the production, transmission, coordination, distribution and/or sale of electricity and/or natural gas, and they are either investor owned companies, commercially oriented government owned companies or, in the case of independent system operators, not-for-profit or similar entities. As detailed in Appendix C, this methodology covers a wide variety of companies active in the sector, including vertically integrated utilities, transmission and distribution utilities with retail customers and/or sub-sovereign regulation, local gas distribution utility companies (LDCs), independent system operators, and regulated generation companies. These companies may be operating companies or holding companies.

An over-arching consideration for regulated utilities is the regulatory environment in which they operate. While regulation is also a key consideration for networks, a utility's regulatory environment is in comparison often more dynamic and more subject to political intervention. The direct relationship that a regulated utility has with the retail customer, including billing for electric or gas supply that has substantial price volatility, can lead to a more politically charged rate-setting environment. Similarly, regulation at the sub-sovereign level is often more accessible for participation by interveners, including disaffected customers and the politicians who want their votes. Our views of regulatory environments evolve over time in accordance with our observations of regulatory, political, and judicial events that affect issuers in the sector.

This methodology pertains to regulated electric and gas utilities and excludes the following types of issuers, which are covered by separate rating methodologies: Regulated Networks, Unregulated Utilities and Power Companies, Public Power Utilities, Municipal Joint Action Agencies, Electric Cooperatives, Regulated Water Companies and Natural Gas Pipelines.⁵

The Regulated Electric and Gas Utility sector is predominantly investment grade, reflecting the stability generally conferred by regulation that typically sets prices and also limits competition, such that defaults have been lower than in many other non-financial corporate sectors. However, the nature of regulation can

² Companies in many industries are regulated. We use the term rate-regulated to distinguish companies whose rates (by which we also mean tariffs or revenues in general) are set by regulators.

³ Regulated Electric and Gas Networks are companies whose predominant business is purely the transmission and/or distribution of electricity and/or natural gas without involvement in the procurement or sale of electricity and/or gas; whose charges to customers thus do not include a meaningful commodity cost component; which sell mainly (or in many cases exclusively) to non-retail customers; and which are rate-regulated under a national framework.

⁴ We generally consider a company to be predominantly a regulated electric and gas utility when a majority of its cash flows, prospectively and on a sustained basis, are derived from regulated electric and gas utility businesses. Since cash flows can be volatile (such that a company might have a majority of utility cash flows simply due to a cyclical downturn in its non-utility businesses), we may also consider the breakdown of assets and/or debt of a company to determine which business is predominant.

⁵ A link to credit rating methodologies covering these and other sectors can be found in the Related Research section of this report.

vary significantly from jurisdiction to jurisdiction. Most issuers at the lower end of the ratings spectrum operate in challenging regulatory environments.

About this Rating Methodology

This report explains the rating methodology for regulated electric and gas utilities in six sections, which are summarized as follows:

1. Identification and Discussion of the Rating Factors in the Grid

The grid in this rating methodology focuses on four rating factors. The four factors are comprised of sub-factors that provide further detail:

Factor / Sub-Factor Weighting - Regulated Utilities

Broad Rating Factors	Broad Rating Factor Weighting	Rating Sub-Factor	Sub-Factor Weighting
Regulatory Framework	25%	Legislative and Judicial Underpinnings of the Regulatory Framework	12.5%
		Consistency and Predictability of Regulation	12.5%
Ability to Recover Costs and Earn Returns	25%	Timeliness of Recovery of Operating and Capital Costs	12.5%
		Sufficiency of Rates and Returns	12.5%
Diversification	10%	Market Position	5%*
		Generation and Fuel Diversity	5%**
Financial Strength, Key Financial Metrics	40%	CFO pre-WC + Interest/ Interest	7.5%
		CFO pre-WC / Debt	15.0%
		CFO pre-WC – Dividends / Debt	10.0%
		Debt/Capitalization	7.5%
Total	100%		100%
Notching Adjustment			
Holding Company Structural Subordination			0 to -3
*10% weight for issuers that lack generation; **0% weight for issuers that lack generation			

2. Measurement or Estimation of Factors in the Grid

We explain our general approach for scoring each grid factor and show the weights used in the grid. We also provide a rationale for why each of these grid components is meaningful as a credit indicator. The information used in assessing the sub-factors is generally found in or calculated from information in company financial statements, derived from other observations or estimated by our analysts.⁶ All of the quantitative credit metrics incorporate Moody's standard adjustments to income statement, cash flow statement and balance sheet amounts for restructuring, impairment, off-balance sheet accounts, receivable securitization programs, under-funded pension obligations, and recurring operating leases.⁷

⁶ For definitions of our most common ratio terms, please see "Moody's Basic Definitions for Credit Statistics, User's Guide," a link to which may be found in the Related Research section of this report.

⁷ Our standard adjustments are described in "Financial Statement Adjustments in the Analysis of Non-Financial Corporations". A link to this and other sector and cross-sector credit rating methodologies can be found in the Related Research section of this report.

Our ratings are forward-looking and reflect our expectations for future financial and operating performance. However, historical results are helpful in understanding patterns and trends of a company's performance as well as for peer comparisons. We utilize historical data (in most cases, an average of the last three years of reported results) in the rating grid. However, the factors in the grid can be assessed using various time periods. Foreexample, rating committees may find it analytically useful to examine both historical and expected future performance for periods of several years or more, or for individual twelve month periods.

3. Mapping Factors to the Rating Categories

After estimating or calculating each sub-factor, the outcomes for each of the sub-factors are mapped to a broad Moody's rating category (Aaa, Aa, A, Baa, Ba, B, or Caa).

4. Assumptions, Limitations and Rating Considerations Not Included in the Grid

This section discusses limitations in the use of the grid to map against actual ratings, some of the additional factors that are not included in the grid but can be important in determining ratings, and limitations and assumptions that pertain to the overall rating methodology.

5. Determining the Overall Grid-Indicated Rating⁸

To determine the overall grid-indicated rating, we convert each of the sub-factor ratings into a numeric value based upon the scale below.

Aaa	Aa	A	Baa	Ba	B	Caa	Ca
1	3	6	9	12	15	18	20

The numerical score for each sub-factor is multiplied by the weight for that sub-factor with the results then summed to produce a composite weighted-factor score. The composite weighted factor score is then mapped back to an alphanumeric rating based on the ranges in the table below.

Grid-Indicated Rating

Grid-Indicated Rating	Aggregate Weighted Total Factor Score
Aaa	$x < 1.5$
Aa1	$1.5 \leq x < 2.5$
Aa2	$2.5 \leq x < 3.5$
Aa3	$3.5 \leq x < 4.5$
A1	$4.5 \leq x < 5.5$
A2	$5.5 \leq x < 6.5$
A3	$6.5 \leq x < 7.5$
Baa1	$7.5 \leq x < 8.5$
Baa2	$8.5 \leq x < 9.5$
Baa3	$9.5 \leq x < 10.5$

⁸ In general, the grid-indicated rating is oriented to the Corporate Family Rating (CFR) for speculative-grade issuers and the senior unsecured rating for investment-grade issuers. For issuers that benefit from ratings uplift due to parental support, government ownership or other institutional support, the grid-indicated rating is oriented to the baseline credit assessment. For an explanation of baseline credit assessment, please refer to our rating methodology on government-related issuers. Individual debt instrument ratings also factor in decisions on notching for seniority level and collateral. The documents that provide broad guidance for these notching decisions are our rating methodologies on loss given default for speculative grade non-financial companies and for aligning corporate instrument ratings based on differences in security and priority of claim. The link to these and other sector and cross-sector credit rating methodologies can be found in the Related Research section of this report.

Grid-Indicated Rating

Grid-Indicated Rating	Aggregate Weighted Total Factor Score
Ba1	$10.5 \leq x < 11.5$
Ba2	$11.5 \leq x < 12.5$
Ba3	$12.5 \leq x < 13.5$
B1	$13.5 \leq x < 14.5$
B2	$14.5 \leq x < 15.5$
B3	$15.5 \leq x < 16.5$
Caa1	$16.5 \leq x < 17.5$
Caa2	$17.5 \leq x < 18.5$
Caa3	$18.5 \leq x < 19.5$
Ca	$x \geq 19.5$

For example, an issuer with a composite weighted factor score of 11.7 would have a Ba2 grid-indicated rating.

6. Appendices

The Appendices present a full grid and provide additional commentary and insights on our view of credit risks in this industry.

Discussion of the Grid Factors

Our analysis of electric and gas utilities focuses on four broad factors:

- » Regulatory Framework
- » Ability to Recover Costs and Earn Returns
- » Diversification
- » Financial Strength

There is also a notching factor for holding company structural subordination.

Factor 1: Regulatory Framework (25%)**Why It Matters**

For rate-regulated utilities, which typically operate as a monopoly, the regulatory environment and how the utility adapts to that environment are the most important credit considerations. The regulatory environment is comprised of two rating factors - the Regulatory Framework and its corollary factor, the Ability to Recover Costs and Earn Returns. Broadly speaking, the Regulatory Framework is the foundation for how all the decisions that affect utilities are made (including the setting of rates), as well as the predictability and consistency of decision-making provided by that foundation. The Ability to Recover Costs and Earn Returns relates more directly to the actual decisions, including their timeliness and the rate-setting outcomes.

Utility rates⁹ are set in a political/regulatory process rather than a competitive or free-market process; thus, the Regulatory Framework is a key determinant of the success of utility. The Regulatory Framework has many components: the governing body and the utility legislation or decrees it enacts, the manner in which regulators are appointed or elected, the rules and procedures promulgated by those regulators, the judiciary that interprets the laws and rules and that arbitrates disagreements, and the manner in which the utility manages the political and regulatory process. In many cases, utilities have experienced credit stress or default primarily or at least secondarily because of a break-down or obstacle in the Regulatory Framework – for instance, laws that prohibited regulators from including investments in uncompleted power plants or plants not deemed “used and useful” in rates, or a disagreement about rate-making that could not be resolved until after the utility had defaulted on its debts.

How We Assess Legislative and Judicial Underpinnings of the Regulatory Framework for the Grid

For this sub-factor, we consider the scope, clarity, transparency, supportiveness and granularity of utility legislation, decrees, and rules as they apply to the issuer. We also consider the strength of the regulator’s authority over rate-making and other regulatory issues affecting the utility, the effectiveness of the judiciary or other independent body in arbitrating disputes in a disinterested manner, and whether the utility’s monopoly has meaningful or growing carve-outs. In addition, we look at how well developed the framework is – both how fully fleshed out the rules and regulations are and how well tested it is – the extent to which regulatory or judicial decisions have created a body of precedent that will help determine future rate-making. Since the focus of our scoring is on each issuer, we consider

⁶ In jurisdictions where utility revenues include material government subsidy payments, we consider utility rates to be inclusive of these payments, and we thus evaluate sub-factors 1a, 1b, 2a and 2b in light of both rates and material subsidy payments. For example, we would consider the legal and judicial underpinnings and consistency and predictability of subsidies as well as rates.

how effective the utility is in navigating the regulatory framework – both the utility’s ability to shape the framework and adapt to it.

A utility operating in a regulatory framework that is characterized by legislation that is credit supportive of utilities and eliminates doubt by prescribing many of the procedures that the regulators will use in determining fair rates (which legislation may show evidence of being responsive to the needs of the utility in general or specific ways), a long history of transparent rate-setting, and a judiciary that has provided ample precedent by impartially adjudicating disagreements in a manner that addresses ambiguities in the laws and rules will receive higher scores in the Legislative and Judicial Underpinnings sub-factor. A utility operating in a regulatory framework that, by statute or practice, allows the regulator to arbitrarily prevent the utility from recovering its costs or earning a reasonable return on prudently incurred investments, or where regulatory decisions may be reversed by politicians seeking to enhance their populist appeal will receive a much lower score.

In general, we view national utility regulation as being less liable to political intervention than regulation by state, provincial or municipal entities, so the very highest scoring in this sub-factor is reserved for this category. However, we acknowledge that states and provinces in some countries may be larger than small nations, such that their regulators may be equally “above-the-fray” in terms of impartial and technically-oriented rate setting, and very high scoring may be appropriate.

⁹ In jurisdictions where utility revenues include material government subsidy payments, we consider utility rates to be inclusive of these payments, and we thus evaluate sub-factors 1a, 1b, 2a and 2b in light of both rates and material subsidy payments. For example, we would consider the legal and judicial underpinnings and consistency and predictability of subsidies as well as rates.

The relevant judicial system can be a major factor in the regulatory framework. This is particularly true in litigious societies like the United States, where disagreements between the utility and its state or municipal regulator may eventually be adjudicated in federal district courts or even by the US Supreme Court. In addition, bankruptcy proceedings in the US take place in federal courts, which have at times been able to impose rate settlement agreements on state or municipal regulators. As a result, the range of decisions available to state regulators may be effectively circumscribed by court precedent at the state or federal level, which we generally view as favorable for the credit- supportiveness of the regulatory framework.

Electric and gas utilities are generally presumed to have a strong monopoly that will continue into the foreseeable future, and this expectation has allowed these companies to have greater leverage than companies in other sectors with similar ratings. Thus, the existence of a monopoly in itself is unlikely to be a driver of strong scoring in this sub-factor. On the other hand, a strong challenge to the monopoly could cause lower scoring, because the utility can only recover its costs and investments and service its debt if customers purchase its services. There have been some instances of incursions into utilities' monopoly, including municipalization, self-generation, distributed generation with net metering, or unauthorized use (beyond the level for which the utility receives compensation in rates). Incursions that are growing significantly or having a meaningful impact on rates for customers that remain with the utility could have a negative impact on scoring of this sub-factor and on factor 2 - Ability to Recover Costs and Earn Returns.

The scoring of this sub-factor may not be the same for every utility in a particular jurisdiction. We have observed that some utilities appear to have greater sway over the relevant utility legislation and promulgation of rules than other utilities – even those in the same jurisdiction. The content and tone of publicly filed documents and regulatory decisions sometimes indicates that the management team at one utility has better responsiveness to and credibility with its regulators or legislators than the management at another utility.

While the underpinnings to the regulatory framework tend to change relatively slowly, they do evolve, and our factor scoring will seek to reflect that evolution. For instance, a new framework will typically become tested over time as regulatory decisions are issued, or perhaps litigated, thereby setting a body of precedent. Utilities may seek changes to laws in order to permit them to securitize certain costs or collect interim rates, or a jurisdiction in which rates were previously recovered primarily in base rate proceedings may institute riders and trackers. These changes would likely impact scoring of sub-factor 2b - Timeliness of Recovery of Operating and Capital Costs, but they may also be sufficiently significant to indicate a change in the regulatory underpinnings. On the negative side, a judiciary that had formerly been independent may start to issue decisions that indicate it is conforming its decisions to the expectations of an executive branch that wants to mandate lower rates.

Factor 1a: Legislative and Judicial Underpinnings of the Regulatory Framework (12.5%)

Aaa	Aa	A	Baa
Utility regulation occurs under a fully developed framework that is national in scope based on legislation that provides the utility a nearly absolute monopoly (see note 1) within its service territory, an unquestioned assurance that rates will be set in a manner that will permit the utility to make and recover all necessary investments, an extremely high degree of clarity as to the manner in which utilities will be regulated and prescriptive methods and procedures for setting rates. Existing utility law is comprehensive and supportive such that changes in legislation are not expected to be necessary; or any changes that have occurred have been strongly supportive of utilities credit quality in general and sufficiently forward-looking so as to address problems before they occurred. There is an independent judiciary that can arbitrate disagreements between the regulator and the utility should they occur, including access to national courts, very strong judicial precedent in the interpretation of utility laws, and a strong rule of law. We expect these conditions to continue.	Utility regulation occurs under a fully developed national, state or provincial framework based on legislation that provides the utility an extremely strong monopoly (see note 1) within its service territory, a strong assurance, subject to limited review, that rates will be set in a manner that will permit the utility to make and recover all necessary investments, a very high degree of clarity as to the manner in which utilities will be regulated and reasonably prescriptive methods and procedures for setting rates. If there have been changes in utility legislation, they have been timely and clearly credit supportive of the issuer in a manner that shows the utility has had a strong voice in the process. There is an independent judiciary that can arbitrate disagreements between the regulator and the utility, should they occur including access to national courts, strong judicial precedent in the interpretation of utility laws, and a strong rule of law. We expect these conditions to continue.	Utility regulation occurs under a well developed national, state or provincial framework based on legislation that provides the utility a very strong monopoly (see note 1) within its service territory, an assurance, subject to reasonable prudence requirements, that rates will be set in a manner that will permit the utility to make and recover all necessary investments, a high degree of clarity as to the manner in which utilities will be regulated, and overall guidance for methods and procedures for setting rates. If there have been changes in utility legislation, they have been mostly timely and on the whole credit supportive for the issuer, and the utility has had a clear voice in the legislative process. There is an independent judiciary that can arbitrate disagreements between the regulator and the utility, should they occur, including access to national courts, clear judicial precedent in the interpretation of utility law, and a strong rule of law. We expect these conditions to continue.	Utility regulation occurs (i) under a national, state, provincial or municipal framework based on legislation that provides the utility a strong monopoly within its service territory that may have some exceptions such as greater self-generation (see note 1), a general assurance that, subject to prudence requirements that are mostly reasonable, rates will be set in a manner that will permit the utility to make and recover all necessary investments, reasonable clarity as to the manner in which utilities will be regulated and overall guidance for methods and procedures for setting rates; or (ii) under a new framework where independent and transparent regulation exists in other sectors. If there have been changes in utility legislation, they have been credit supportive or at least balanced for the issuer but potentially less timely, and the utility had a voice in the legislative process. There is either (i) an independent judiciary that can arbitrate disagreements between the regulator and the utility, including access to courts at least at the state or provincial level, reasonably clear judicial precedent in the interpretation of utility laws, and a generally strong rule of law; or (ii) regulation has been applied (under a well developed framework) in a manner such that redress to an independent arbiter has not been required. We expect these conditions to continue.
Ba	B	Caa	
Utility regulation occurs (i) under a national, state, provincial or municipal framework based on legislation or government decree that provides the utility a monopoly within its service territory that is generally strong but may have a greater level of exceptions (see note 1), and that, subject to prudence requirements which may be stringent, provides a general assurance (with somewhat less certainty) that rates will be set in a manner that will permit the utility to make and recover necessary investments; or (ii) under a new framework where the jurisdiction has a history of less independent and transparent regulation in other sectors. Either: (i) the judiciary that can arbitrate disagreements between the regulator and the utility may not have clear authority or may not be fully independent of the regulator or other political pressure, but there is a reasonably strong rule of law; or (ii) where there is no independent arbiter, the regulation has mostly been applied in a manner such redress has not been required. We expect these conditions to continue.	Utility regulation occurs (i) under a national, state, provincial or municipal framework based on legislation or government decree that provides the utility monopoly within its service territory that is reasonably strong but may have important exceptions, and that, subject to prudence requirements which may be stringent or at times arbitrary, provides more limited or less certain assurance that rates will be set in a manner that will permit the utility to make and recover necessary investments; or (ii) under a new framework where we would expect less independent and transparent regulation, based either on the regulator's history in other sectors or other factors. The judiciary that can arbitrate disagreements between the regulator and the utility may not have clear authority or may not be fully independent of the regulator or other political pressure, but there is a reasonably strong rule of law. Alternately, where there is no independent arbiter, the regulation has been applied in a manner that often requires some redress adding more uncertainty to the regulatory framework. There may be a periodic risk of creditor-unfriendly government intervention in utility markets or rate-setting.	Utility regulation occurs (i) under a national, state, provincial or municipal framework based on legislation or government decree that provides the utility a monopoly within its service territory, but with little assurance that rates will be set in a manner that will permit the utility to make and recover necessary investments; or (ii) under a new framework where we would expect unpredictable or adverse regulation, based either on the jurisdiction's history of in other sectors or other factors. The judiciary that can arbitrate disagreements between the regulator and the utility may not have clear authority or is viewed as not being fully independent of the regulator or other political pressure. Alternately, there may be no redress to an effective independent arbiter. The ability of the utility to enforce its monopoly or prevent uncompensated usage of its system may be limited. There may be a risk of creditor-unfriendly nationalization or other significant intervention in utility markets or rate-setting.	

Note 1: The strength of the monopoly refers to the legal, regulatory and practical obstacles for customers in the utility's territory to obtain service from another provider. Examples of a weakening of the monopoly would include the ability of a city or large user to leave the utility system to set up their own system, the extent to which self-generation is permitted (e.g. cogeneration) and/or encouraged (e.g. net metering, DSM generation). At the lower end of the ratings spectrum, the utility's monopoly may be challenged by pervasive theft and unauthorized use. Since utilities are generally presumed to be monopolies, a strong monopoly position in itself is not sufficient for a strong score in this sub-factor, but a weakening of the monopoly can lower the score.

How We Assess Consistency and Predictability of Regulation for the Grid

For the Consistency and Predictability sub-factor, we consider the track record of regulatory decisions in terms of consistency, predictability and supportiveness. We evaluate the utility's interactions in the regulatory process as well as the overall stance of the regulator toward the utility.

In most jurisdictions, the laws and rules seek to make rate-setting a primarily technical process that examines costs the utility incurs and the returns on investments the utility needs to earn so it can make investments that are required to build and maintain the utility infrastructure - power plants, electric transmission and distribution systems, and/or natural gas distribution systems. When the process remains technical and transparent such that regulators can support the financial health of the utility while balancing their public duty to assure that reliable service is provided at a reasonable cost, and when the utility is able to align itself with the policy initiatives of the governing jurisdiction, the utility will receive higher scores in this sub-factor. When the process includes substantial political intervention, which could take the form of legislators or other government officials publicly second-guessing regulators, dismissing regulators who have approved unpopular rate increases, or preventing the implementation of rate increases, or when regulators ignore the laws/rules to deliver an outcome that appears more politically motivated, the utility will receive lower scores in this sub-factor.

As with the prior sub-factor, we may score different utilities in the same jurisdiction differently, based on outcomes that are more or less supportive of credit quality over a period of time. We have observed that some utilities are better able to meet the expectations of their customers and regulators, whether through better service, greater reliability, more stable rates or simply more effective regulatory outreach and communication. These utilities typically receive more consistent and credit supportive outcomes, so they will score higher in this sub-factor. Conversely, if a utility has multiple rapid rate increases, chooses to submit major rate increase requests during a sensitive election cycle or a severe economic downturn, has chronic customer service issues, is viewed as frequently providing incomplete information to regulators, or is tone deaf to the priorities of regulators and politicians, it may receive less consistent and supportive outcomes and thus score lower in this sub-factor.

In scoring this sub-factor, we will primarily evaluate the actions of regulators, politicians and jurists rather than their words. Nonetheless, words matter when they are an indication of future action. We seek to differentiate between political rhetoric that is perhaps oriented toward gaining attention for the viewpoint of the speaker and rhetoric that is indicative of future actions and trends in decision-making.

Factor 1b: Consistency and Predictability of Regulation (12.5%)

Aaa	Aa	A	Baa
The issuer's interaction with the regulator has led to a strong, lengthy track record of predictable, consistent and favorable decisions. The regulator is highly credit supportive of the issuer and utilities in general. We expect these conditions to continue.	The issuer's interaction with the regulator has led to a considerable track record of predominantly predictable and consistent decisions. The regulator is mostly credit supportive of utilities in general and in almost all instances has been highly credit supportive of the issuer. We expect these conditions to continue.	The issuer's interaction with the regulator has led to a track record of largely predictable and consistent decisions. The regulator may be somewhat less credit supportive of utilities in general, but has been quite credit supportive of the issuer in most circumstances. We expect these conditions to continue.	The issuer's interaction with the regulator has led to an adequate track record. The regulator is generally consistent and predictable, but there may be some evidence of inconsistency or unpredictability from time to time, or decisions may at times be politically charged. However, instances of less credit supportive decisions are based on reasonable application of existing rules and statutes and are not overly punitive. We expect these conditions to continue.
Ba	B	Caa	
We expect that regulatory decisions will demonstrate considerable inconsistency or unpredictability or that decisions will be politically charged, based either on the issuer's track record of interaction with regulators or other governing bodies, or our view that decisions will move in this direction. The regulator may have a history of less credit supportive regulatory decisions with respect to the issuer, but we expect that the issuer will be able to obtain support when it encounters financial stress, with some potentially material delays. The regulator's authority may be eroded at times by legislative or political action. The regulator may not follow the framework for some material decisions.	We expect that regulatory decisions will be largely unpredictable or even somewhat arbitrary, based either on the issuer's track record of interaction with regulators or other governing bodies, or our view that decisions will move in this direction. However, we expect that the issuer will ultimately be able to obtain support when it encounters financial stress, albeit with material or more extended delays. Alternately, the regulator is untested, lacks a consistent track record, or is undergoing substantial change. The regulator's authority may be eroded on frequent occasions by legislative or political action. The regulator may more frequently ignore the framework in a manner detrimental to the issuer.	We expect that regulatory decisions will be highly unpredictable and frequently adverse, based either on the issuer's track record of interaction with regulators or other governing bodies, or our view that decisions will move in this direction. Alternately, decisions may have credit supportive aspects, but may often be unenforceable. The regulator's authority may have been seriously eroded by legislative or political action. The regulator may consistently ignore the framework to the detriment of the issuer.	

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Factor 2: Ability to Recover Costs and Earn Returns (25%)

Why It Matters

This rating factor examines the ability of a utility to recover its costs and earn a return over a period of time, including during differing market and economic conditions. While the Regulatory Framework looks at the transparency and predictability of the rules that govern the decision-making process with respect to utilities, the Ability to Recover Costs and Earn Returns evaluates the regulatory elements that directly impact the ability of the utility to generate cash flow and service its debt over time. The ability to recover prudently incurred costs on a timely basis and to attract debt and equity capital are crucial credit considerations. The inability to recover costs, for instance if fuel or purchased power costs ballooned during a rate freeze period, has been one of the greatest drivers of financial stress in this sector, as well as the cause of some utility defaults. In a sector that is typically free cash flow negative (due to large capital expenditures and dividends) and that routinely needs to refinance very large maturities of long-term debt, investor concerns about a lack of timely cost recovery or the sufficiency of rates can, in an extreme scenario, strain access to capital markets and potentially lead to insolvency of the utility (as was the case when "used and useful" requirements threatened some utilities that experienced years of delay in completing nuclear power plants in the 1980s). While our scoring for the Ability to Recover Costs and Earn Returns may primarily be influenced by our assessment of the regulatory relationship, it can also be highly impacted by the management and business decisions of the utility.

How We Assess Ability to Recover Costs and Earn Returns

The timeliness and sufficiency of rates are scored as separate sub-factors; however, they are interrelated. Timeliness can have an impact on our view of what constitutes sufficient returns, because a strong assurance of timely cost recovery reduces risk. Conversely, utilities may have a strong assurance that they will earn a full return on certain deferred costs until they are able to collect them, or their generally strong returns may allow them to weather some rate lag on recovery of construction-related capital expenditures. The timeliness of cost recovery is particularly important in a period of rapidly rising costs. During the past five years, utilities have benefitted from low interest rates and generally decreasing fuel costs and purchased power costs, but these market conditions could easily reverse. For example, fuel is a large component of total costs for vertically integrated utilities and for natural gas utilities, and fuel prices are highly volatile, so the timeliness of fuel and purchased power cost recovery is especially important.

While Factors 1 and 2 are closely inter-related, scoring of these factors will not necessarily be the same. We have observed jurisdictions where the Regulatory Framework caused considerable credit concerns – perhaps it was untested or going through a transition to de-regulation, but where the track record of rate case outcomes was quite positive, leading to a higher score in the Ability to Recover Costs and Earn Returns. Conversely, there have been instances of strong Legislative and Judicial Underpinnings of the Regulatory Framework where the commission has ignored the framework (which would affect Consistency and Predictability of Regulation as well as Ability to Recover Costs and Earn Returns) or has used extraordinary measures to prevent or defer an increase that might have been justifiable from a cost perspective but would have caused rate shock.

One might surmise that Factors 2 and 4 should be strongly correlated, since a good Ability to Recover Costs and Earn Returns would normally lead to good financial metrics. However, the scoring for the Ability to Recover Costs and Earn Returns sub-factor places more emphasis on our expectation of timeliness and sufficiency of rates over time; whereas financial metrics may be impacted by one-time events, market conditions or construction cycles – trends that we believe could normalize or even reverse.

How We Assess Timeliness of Recovery of Operating and Capital Costs for the Grid

The criteria we consider include provisions and cost recovery mechanisms for operating costs, mechanisms that allow actual operating and/or capital expenditures to be trued-up periodically into rates without having to file a rate case (this may include formula rates, rider and trackers, or the ability to periodically adjust rates for construction work in progress) as well as the process and timeframe of general tariff/base rate cases – those that are fully reviewed by the regulator, generally in a public format that includes testimony of the utility and other stakeholders and interest groups. We also look at the track record of the utility and regulator for timeliness. For instance, having a formula rate plan is positive, but if the actual process has included reviews that are delayed for long periods, it may dampen the benefit to the utility. In addition, we seek to estimate the lag between the time that a utility incurs a major construction expenditures and the time that the utility will start to recover and/or earn a return on that expenditure.

How We Assess Sufficiency of Rates and Returns for the Grid

The criteria we consider include statutory protections that assure full cost recovery and a reasonable return for the utility on its investments, the regulatory mechanisms used to determine what a reasonable return should be, and the track record of the utility in actually recovering costs and earning returns. We examine outcomes of rate cases/tariff reviews and compare them to the requests submitted by the utility, to prior rate cases/tariff reviews for the same utility and to recent rate/tariff decisions for a peer group of comparable utilities. In this context, comparable utilities are typically utilities in the same or similar jurisdiction. In cases where the utility is unique or nearly unique in its jurisdiction, comparison will be made to other peers with an adjustment for local differences, including prevailing rates of interest and returns on capital, as well as the timeliness of rate-setting. We look at regulatory disallowances of costs or investments, with a focus on their financial severity and also on the reasons given by the regulator, in order to assess the likelihood that such disallowances will be repeated in the future.

Factor 2a: Timeliness of Recovery of Operating and Capital Costs (12.5%)

Aaa	Aa	A	Baa
Tariff formulas and automatic cost recovery mechanisms provide full and highly timely recovery of all operating costs and essentially contemporaneous return on all incremental capital investments, with statutory provisions in place to preclude the possibility of challenges to rate increases or cost recovery mechanisms. By statute and by practice, general rate cases are efficient, focused on an impartial review, quick, and permit inclusion of fully forward-looking costs.	Tariff formulas and automatic cost recovery mechanisms provide full and highly timely recovery of all operating costs and essentially contemporaneous or near-contemporaneous return on most incremental capital investments, with minimal challenges by regulators to companies' cost assumptions. By statute and by practice, general rate cases are efficient, focused on an impartial review, of a very reasonable duration before non-appealable interim rates can be collected, and primarily permit inclusion of forward-looking costs.	Automatic cost recovery mechanisms provide full and reasonably timely recovery of fuel, purchased power and all other highly variable operating expenses. Material capital investments may be made under tariff formulas or other rate-making permitting reasonably contemporaneous returns, or may be submitted under other types of filings that provide recovery of cost of capital with minimal delays. Instances of regulatory challenges that delay rate increases or cost recovery are generally related to large, unexpected increases in sizeable construction projects. By statute or by practice, general rate cases are reasonably efficient, primarily focused on an impartial review, of a reasonable duration before rates (either permanent or non-refundable interim rates) can be collected, and permit inclusion of important forward-looking costs.	Fuel, purchased power and all other highly variable expenses are generally recovered through mechanisms incorporating delays of less than one year, although some rapid increases in costs may be delayed longer where such deferrals do not place financial stress on the utility. Incremental capital investments may be recovered primarily through general rate cases with moderate lag, with some through tariff formulas. Alternately, there may be formula rates that are untested or unclear. Potentially greater tendency for delays due to regulatory intervention, although this will generally be limited to rates related to large capital projects or rapid increases in operating costs.
Ba	B	Caa	
There is an expectation that fuel, purchased power or other highly variable expenses will eventually be recovered with delays that will not place material financial stress on the utility, but there may be some evidence of an unwillingness by regulators to make timely rate changes to address volatility in fuel, or purchased power, or other market-sensitive expenses. Recovery of costs related to capital investments may be subject to delays that are somewhat lengthy, but not so pervasive as to be expected to discourage important investments.	The expectation that fuel, purchased power or other highly variable expenses will be recovered may be subject to material delays due to second-guessing of spending decisions by regulators or due to political intervention. Recovery of costs related to capital investments may be subject to delays that are material to the issuer, or may be likely to discourage some important investment.	The expectation that fuel, purchased power or other highly variable expenses will be recovered may be subject to extensive delays due to second-guessing of spending decisions by regulators or due to political intervention. Recovery of costs related to capital investments may be uncertain, subject to delays that are extensive, or that may be likely to discourage even necessary investment.	

Note: Tariff formulas include formula rate plans as well as trackers and riders related to capital investment.

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Dec 05 2022

Factor 2b: Sufficiency of Rates and Returns (12.5%)

Aaa	Aa	A	Baa
Sufficiency of rates to cover costs and attract capital is (and will continue to be) unquestioned.	Rates are (and we expect will continue to be) set at a level that permits full cost recovery and a fair return on all investments, with minimal challenges by regulators to companies' cost assumptions. This will translate to returns (measured in relation to equity, total assets, rate base or regulatory asset value, as applicable) that are strong relative to global peers.	Rates are (and we expect will continue to be) set at a level that generally provides full cost recovery and a fair return on investments, with limited instances of regulatory challenges and disallowances. In general, this will translate to returns (measured in relation to equity, total assets, rate base or regulatory asset value, as applicable) that are generally above average relative to global peers, but may at times be average.	Rates are (and we expect will continue to be) set at a level that generally provides full operating cost recovery and a mostly fair return on investments, but there may be somewhat more instances of regulatory challenges and disallowances, although ultimate rate outcomes are sufficient to attract capital without difficulty. In general, this will translate to returns (measured in relation to equity, total assets, rate base or regulatory asset value, as applicable) that are average relative to global peers, but may at times be somewhat below average.
Ba	B	Caa	
Rates are (and we expect will continue to be) set at a level that generally provides recovery of most operating costs but return on investments may be less predictable, and there may be decidedly more instances of regulatory challenges and disallowances, but ultimate rate outcomes are generally sufficient to attract capital. In general, this will translate to returns (measured in relation to equity, total assets, rate base or regulatory asset value, as applicable) that are generally below average relative to global peers, or where allowed returns are average but difficult to earn. Alternately, the tariff formula may not take into account all cost components and/or remuneration of investments may be unclear or at times unfavorable.	We expect rates will be set at a level that at times fails to provide recovery of costs other than cash costs, and regulators may engage in somewhat arbitrary second-guessing of spending decisions or deny rate increases related to funding ongoing operations based much more on politics than on prudence reviews. Return on investments may be set at levels that discourage investment. We expect that rate outcomes may be difficult or uncertain, negatively affecting continued access to capital. Alternately, the tariff formula may fail to take into account significant cost components other than cash costs, and/or remuneration of investments may be generally unfavorable.	We expect rates will be set at a level that often fails to provide recovery of material costs, and recovery of cash costs may also be at risk. Regulators may engage in more arbitrary second-guessing of spending decisions or deny rate increases related to funding ongoing operations based primarily on politics. Return on investments may be set at levels that discourage necessary maintenance investment. We expect that rate outcomes may often be punitive or highly uncertain, with a markedly negative impact on access to capital. Alternately, the tariff formula may fail to take into account significant cash cost components, and/or remuneration of investments may be primarily unfavorable.	

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Dec 05 2022

Factor 3: Diversification (10%)

Why It Matters

Diversification of overall business operations helps to mitigate the risk that economic cycles, material changes in a single regulatory regime or commodity price movements will have a severe impact on cash flow and credit quality of a utility. While utilities' sales volumes have lower exposure to economic recessions than many non-financial corporate issuers, some sales components, including industrial sales, are directly affected by economic trends that cause lower production and/or plant closures. In addition, economic activity plays a role in the rate of customer growth in the service territory and (absent energy efficiency and conservation) can often impact usage per customer. The economic strength or weakness of the service territory can affect the political and regulatory environment for rate increase requests by the utility. For utilities in areas prone to severe storms and other natural disasters, the utility's geographic diversity or concentration can be a key determinant for creditworthiness.

Diversity among regulatory regimes can mitigate the impact of a single unfavorable decision affecting one part of the utility's footprint.

For utilities with electric generation, fuel source diversity can mitigate the impact (to the utility and to its rate-payers) of changes in commodity prices, hydrology and water flow, and environmental or other regulations affecting plant operations and economics. We have observed that utilities' regulatory environments are most likely to become unfavorable during periods of rapid rate increases (which are more important than absolute rate levels) and that fuel diversity leads to more stable rates over time.

For that reason, fuel diversity can be important even if fuel and purchased power expenses are an automatic pass-through to the utility's ratepayers. Changes in environmental, safety and other regulations have caused vulnerabilities for certain technologies and fuel sources during the past five years. These vulnerabilities have varied widely in different countries and have changed over time.

How We Assess Market Position for the Grid

Market position is comprised primarily of the economic diversity of the utility's service territory and the diversity of its regulatory regimes. We also consider the diversity of utility operations (e.g., regulated electric, gas, water, steam) when there are material operations in more than one area.

Economic diversity is a typically a function of the population, size and breadth of the territory and the businesses that drive its GDP and employment. For the size of the territory, we typically consider the number of customers and the volumes of generation and/or throughput. For breadth, we consider the number of sizeable metropolitan areas served, the economic diversity and vitality in those metropolitan areas, and any concentration in a particular area or industry. In our assessment, we may consider various information sources. For example, in the US, information sources on the diversity and vitality of economies of individual states and metropolitan areas may include Moody's Economy.com. We also look at the mix of the utility's sales volumes among customer types, as well as the track record of volume sales and any notable payment patterns during economic cycles. For diversity of regulatory regimes, we typically look at the number of regulators and the percentages of revenues and utility assets that are under the purview of each. While the highest scores in the Market Position sub-factor are reserved for issuers regulated in multiple jurisdictions, when there is only one regulator, we make a differentiation of regimes perceived as having lower or higher volatility.

Issuers with multiple supportive regulatory jurisdictions, a balanced sales mix among residential, commercial, industrial and governmental customers in a large service territory with a robust and diverse economy will generally score higher in this sub-factor. An issuer with a small service territory economy that

has a high dependence on one or two sectors, especially highly cyclical industries, will generally score lower in this sub-factor, as will issuers with meaningful exposure to economic dislocations caused by natural disasters.

For issuers that are vertically integrated utilities having a meaningful amount of generation, this sub-factor has a weighting of 5%. For electric transmission and distribution utilities without meaningful generation and for natural gas local distribution companies, this sub-factor has a weighting of 10%.

How We Assess Generation and Fuel Diversity for the Grid

Criteria include the fuel type of the issuer's generation and important power purchase agreements, the ability of the issuer economically to shift its generation and power purchases when there are changes in fuel prices, the degree to which the utility and its rate-payers are exposed to or insulated from changes in commodity prices, and exposure to Challenged Source and Threatened Sources (see the explanations for how we generally characterize these generation sources in the table below). A regulated utility's capacity mix may not in itself be an indication of fuel diversity or the ability to shift fuels, since utilities may keep old and inefficient plants (e.g., natural gas boilers) to serve peak load. For this reason, we do not incorporate set percentages reflecting an "ideal" or "sub-par" mix for capacity or even generation. In addition to looking at a utility's generation mix to evaluate fuel diversity, we consider the efficiency of the utility's plants, their placement on the regional dispatch curve, and the demonstrated ability/inability of the utility to shift its generation mix in accordance with changing commodity prices.

Issuers having a balanced mix of hydro, coal, natural gas, nuclear and renewable energy as well as low exposure to challenged and threatened sources of generation will score more highly in this sub-factor. Issuers that have concentration in one or two sources of generation, especially if they are threatened or challenged sources, will incur lower scores.

In evaluating an issuer's degree of exposure to challenged and threatened sources, we will consider not only the existence of those plants in the utility's portfolio, but also the relevant factors that will determine the impact on the utility and on its rate-payers. For instance, an issuer that has a fairly high percentage of its generation from challenged sources could be evaluated very differently if its peer utilities face the same magnitude of those issues than if its peers have no exposure to challenged or threatened sources. In evaluating threatened sources, we consider the utility's progress in its plan to replace those sources, its reserve margin, the availability of purchased power capacity in the region, and the overall impact of the replacement plan on the issuer's rates relative to its peer group. Especially if there are no peers in the same jurisdiction, we also examine the extent to which the utility's generation resources plan is aligned with the relevant government's fuel/energy policy.

Factor 3: Diversification (10%)

Weighting 10%	Sub-Factor Weighting	Aaa	Aa	A	Baa
Market Position	5.00% *	A very high degree of multinational and regional diversity in terms of regulatory regimes and/or service territory economies.	Material operations in three or more nations or substantial geographic regions providing very good diversity of regulatory regimes and/or service territory economies.	Material operations in two to three nations, states, provinces or regions that provide good diversity of regulatory regimes and service territory economies. Alternately, operates within a single regulatory regime with low volatility, and the service territory economy is robust, has a very high degree of diversity and has demonstrated resilience in economic cycles.	May operate under a single regulatory regime viewed as having low volatility, or where multiple regulatory regimes are not viewed as providing much diversity. The service territory economy may have some concentration and cyclical, but is sufficiently resilient that it can absorb reasonably foreseeable increases in utility rates.
Generation and Fuel Diversity	5.00% **	A high degree of diversity in terms of generation and/or fuel sources such that the utility and rate-payers are well insulated from commodity price changes, no generation concentration, and very low exposures to Challenged or Threatened Sources (see definitions below).	Very good diversification in terms of generation and/or fuel sources such that the utility and rate-payers are affected only minimally by commodity price changes, little generation concentration, and low exposures to Challenged or Threatened Sources.	Good diversification in terms of generation and/or fuel sources such that the utility and rate-payers have only modest exposure to commodity price changes; however, may have some concentration in a source that is neither Challenged nor Threatened. Exposure to Threatened Sources is low. While there may be some exposure to Challenged Sources, it is not a cause for concern.	Adequate diversification in terms of generation and/or fuel sources such that the utility and rate-payers have moderate exposure to commodity price changes; however, may have some concentration in a source that is Challenged. Exposure to Threatened Sources is moderate, while exposure to Challenged Sources is manageable.
	Sub-Factor Weighting	Ba	B	Caa	Definitions
Market Position	5.00% *	Operates in a market area with somewhat greater concentration and cyclical in the service territory economy and/or exposure to storms and other natural disasters, and thus less resilience to absorbing reasonably foreseeable increases in utility rates. May show somewhat greater volatility in the regulatory regime(s).	Operates in a limited market area with material concentration and more severe cyclical in service territory economy such that cycles are of materially longer duration or reasonably foreseeable increases in utility rates could present a material challenge to the economy. Service territory may have geographic concentration that limits its resilience to storms and other natural disasters, or may be an emerging market. May show decided volatility in the regulatory regime(s).	Operates in a concentrated economic service territory with pronounced concentration, macroeconomic risk factors, and/or exposure to natural disasters.	Challenged Sources are generation plants that face higher but not insurmountable economic hurdles resulting from penalties or taxes on their operation, or from environmental upgrades that are required or likely to be required. Some examples are carbon-emitting plants that incur carbon taxes, plants that must buy emissions credits to operate, and plants that must install environmental equipment to continue to operate, in each where the taxes/credits/upgrades are sufficient to have a material impact on those plants' competitiveness relative to other generation types or on the utility's rates, but where the impact is not so severe as to be likely require plant closure.

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Dec 05 2022

Generation and Fuel Diversity	5.00% **	Modest diversification in generation and/or fuel sources such that the utility or rate-payers have greater exposure to commodity price changes. Exposure to Challenged and Threatened Sources may be more pronounced, but the utility will be able to access alternative sources without undue financial stress.	Operates with little diversification in generation and/or fuel sources such that the utility or rate-payers have high exposure to commodity price changes. Exposure to Challenged and Threatened Sources may be high, and accessing alternate sources may be challenging and cause more financial stress, but ultimately feasible.	Operates with high concentration in generation and/or fuel sources such that the utility or rate-payers have exposure to commodity price shocks. Exposure to Challenged and Threatened Sources may be very high, and accessing alternate sources may be highly uncertain.	Threatened Sources are generation plants that are not currently able to operate due to major unplanned outages or issues with licensing or other regulatory compliance, and plants that are highly likely to be required to de-activate, whether due to the effectiveness of currently existing or expected rules and regulations or due to economic challenges. Some recent examples would include coal fired plants in the US that are not economic to retro-fit to meet mercury and air toxics standards, plants that cannot meet the effective date of those standards, nuclear plants in Japan that have not been licensed to re-start after the Fukushima Dai-ichi accident, and nuclear plants that are required to be phased out within 10 years (as is the case in some European countries).
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* 10% weight for issuers that lack generation **0% weight for issuers that lack generation

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Dec 05 2022

Factor 4: Financial Strength (40%)

Why It Matters

Electric and gas utilities are regulated, asset-based businesses characterized by large investments in long-lived property, plant and equipment. Financial strength, including the ability to service debt and provide a return to shareholders, is necessary for a utility to attract capital at a reasonable cost in order to invest in its generation, transmission and distribution assets, so that the utility can fulfill its service obligations at a reasonable cost to rate-payers.

How We Assess It for the Grid

In comparison to companies in other non-financial corporate sectors, the financial statements of regulated electric and gas utilities have certain unique aspects that impact financial analysis, which is further complicated by disparate treatment of certain elements under US Generally Accepted Accounting Principles (GAAP) versus International Financial Reporting Standards (IFRS). Regulatory accounting may permit utilities to defer certain costs (thereby creating regulatory assets) that a non-utility corporate entity would have to expense. For instance, a regulated utility may be able to defer a substantial portion of costs related to recovery from a storm based on the general regulatory framework for those expenses, even if the utility does not have a specific order to collect the expenses from ratepayers over a set period of time. A regulated utility may be able to accrue and defer a return on equity (in addition to capitalizing interest) for construction-work-in-progress for an approved project based on the assumption that it will be able to collect that deferred equity return once the asset comes into service. For this reason, we focus more on a utility's cash flow than on its reported net income.

Conversely, utilities may collect certain costs in rates well ahead of the time they must be paid (for instance, pension costs), thereby creating regulatory liabilities. Many of our metrics focus on Cash Flow from Operations Before Changes in Working Capital (CFO Pre-WC) because, unlike Funds from Operations (FFO), it captures the changes in long-term regulatory assets and liabilities.

However, under IFRS the two measures are essentially the same. In general, we view changes in working capital as less important in utility financial analysis because they are often either seasonal (for example, power demand is generally greatest in the summer) or caused by changes in fuel prices that are typically a relatively automatic pass-through to the customer. We will nonetheless examine the impact of working capital changes in analyzing a utility's liquidity (see Other Rating Considerations– Liquidity).

Given the long-term nature of utility assets and the often lumpy nature of their capital expenditures, it is important to analyze both a utility's historical financial performance as well as its prospective future performance, which may be different from backward-looking measures. Scores under this factor may be higher or lower than what might be expected from historical results, depending on our view of expected future performance. Multi-year periods are usually more representative of credit quality because utilities can experience swings in cash flows from one-time events, including such items as rate refunds, storm cost deferrals that create a regulatory asset, or securitization proceeds that reduce a regulatory asset. Nonetheless, we also look at trends in metrics for individual periods, which may influence our view of future performance and ratings.

For this scoring grid, we have identified four key ratios that we consider the most consistently useful in the analysis of regulated electric and gas utilities. However, no single financial ratio can adequately convey the relative credit strength of these highly diverse companies. Our ratings consider the overall financial strength of a company, and in individual cases other financial indicators may also play an important role.

CFO Pre-Working Capital Plus Interest/Interest or Cash Flow Interest Coverage

The cash flow interest coverage ratio is an indicator for a utility's ability to cover the cost of its borrowed capital. The numerator in the ratio calculation is the sum of CFO Pre-WC and interest expense, and the denominator is interest expense.

CFO Pre-Working Capital / Debt

This important metric is an indicator for the cash generating ability of a utility compared to its total debt. The numerator in the ratio calculation is CFO Pre-WC, and the denominator is total debt.

CFO Pre-Working Capital Minus Dividends / Debt

This ratio is an indicator for financial leverage as well as an indicator of the strength of a utility's cash flow after dividend payments are made. Dividend obligations of utilities are often substantial, quasi-permanent outflows that can affect the ability of a utility to cover its debt obligations, and this ratio can also provide insight into the financial policies of a utility or utility holding company. The higher the level of retained cash flow relative to a utility's debt, the more cash the utility has to support its capital expenditure program. The numerator of this ratio is CFO Pre-WC minus dividends, and the denominator is total debt.

Debt/Capitalization

This ratio is a traditional measure of balance sheet leverage. The numerator is total debt and the denominator is total capitalization. All of our ratios are calculated in accordance with our standard adjustments¹⁰, but we note that our definition of total capitalization includes deferred taxes in addition to total debt, preferred stock, other hybrid securities, and common equity. Since the presence or absence of deferred taxes is a function of national tax policy, comparing utilities using this ratio may be more meaningful among utilities in the same country or in countries with similar tax policies. High debt levels in comparison to capitalization can indicate higher interest obligations, can limit the ability of a utility to raise additional financing if needed, and can lead to leverage covenant violations in bank credit facilities or other financing agreements¹¹. A high ratio may result from a regulatory framework that does not permit a robust cushion of equity in the capital structure, or from a material write-off of an asset, which may not have impacted current period cash flows but could affect future period cash flows relative to debt.

There are two sets of thresholds for three of these ratios based on the level of the issuer's business risk – the Standard Grid and the Lower Business Risk (LBR) Grid. In our view, the different types of utility entities covered under this methodology (as described in Appendix E) have different levels of business risk.

Generation utilities and vertically integrated utilities generally have a higher level of business risk because they are engaged in power generation, so we apply the Standard Grid. We view power generation as the highest-risk component of the electric utility business, as generation plants are typically the most expensive part of a utility's infrastructure (representing asset concentration risk) and are subject to the greatest risks in both construction and operation, including the risk that incurred costs will either not be recovered in rates or recovered with material delays.

Other types of utilities may have lower business risk, such that we believe that they are most appropriately assessed using the LBR Grid, due to factors that could include a generally greater transfer of risk to customers, very strong insulation from exposure to commodity price movements, good protection from volumetric risks, fairly limited capex needs and low exposure to storms, major accidents and natural

¹⁰ In certain circumstances, analysts may also apply specific adjustments.

¹¹ We also examine debt/capitalization ratios as defined in applicable covenants (which typically exclude deferred taxes from capitalization) relative to the covenant threshold level.

disasters. For instance, we tend to view many US natural gas local distribution companies (LDCs) and certain US electric transmission and distribution companies (T&Ds, which lack generation but generally retain some procurement responsibilities for customers), as typically having a lower business risk profile than their vertically integrated peers. In cases of T&Ds that we do not view as having materially lower risk than their vertically integrated peers, we will apply the Standard grid. This could result from a regulatory framework that exposes them to energy supply risk, large capital expenditures for required maintenance or upgrades, a heightened degree of exposure to catastrophic storm damage, or increased regulatory scrutiny due to poor reliability, or other considerations. The Standard Grid will also apply to LDCs that in our view do not have materially lower risk; for instance, due to their ownership of high pressure pipes or older systems requiring extensive gas main replacements, where gas commodity costs are not fully recovered in a reasonably contemporaneous manner, or where the LDC is not well insulated from declining volumes.

The four key ratios, their weighting in the grid, and the Standard and LBR scoring thresholds are detailed in the following table.

Factor 4: Financial Strength

Weighting 40%	Sub-Factor Weighting		Aaa	Aa	A	Baa	Ba	B	Caa
CFO pre-WC + Interest / Interest	7.50%		≥ 8.0x	6.0x - 8.0x	4.5x - 6.0x	3.0x - 4.5x	2.0x - 3.0x	1.0x - 2.0x	< 1.0x
CFO pre-WC / Debt	15.00%	Standard Grid	≥ 40%	30% - 40%	22% - 30%	13% - 22%	5% - 13%	1% - 5%	< 1%
		Low Business Risk Grid	≥ 38%	27% - 38%	19% - 27%	11% - 19%	5% - 11%	1% - 5%	< 1%
CFO pre-WC - Dividends / Debt	10.00%	Standard Grid	≥ 35%	25% - 35%	17% - 25%	9% - 17%	0% - 9%	(5%) - 0%	< (5%)
		Low Business Risk Grid	≥ 34%	23% - 34%	15% - 23%	7% - 15%	0% - 7%	(5%) - 0%	< (5%)
Debt / Capitalization	7.50%	Standard Grid	< 25%	25% - 35%	35% - 45%	45% - 55%	55% - 65%	65% - 75%	≥ 75%
		Low Business Risk Grid	< 29%	29% - 40%	40% - 50%	50% - 59%	59% - 67%	67% - 75%	≥ 75%

Notching for Structural Subordination of Holding Companies

Why It Matters

A typical utility company structure consists of a holding company ("HoldCo") that owns one or more operating subsidiaries (each an "OpCo"). OpCos may be regulated utilities or non-utility companies. A HoldCo typically has no operations – its assets are mostly limited to its equity interests in subsidiaries, and potentially other investments in subsidiaries that are structured as advances, debt, or even hybrid securities.

Most HoldCos present their financial statements on a consolidated basis that blurs legal considerations about priority of creditors based on the legal structure of the family, and grid scoring is thus based on consolidated ratios. However, HoldCo creditors typically have a secondary claim on the group's cash flows and assets after OpCo creditors. We refer to this as structural subordination, because it is the corporate legal structure, rather than specific subordination provisions, that causes creditors at each of the utility and non-utility subsidiaries to have a more direct claim on the cash flows and assets of their respective OpCo obligors. By contrast, the debt of the HoldCo is typically serviced primarily by dividends that are up-

streamed by the OpCos¹². Under normal circumstances, these dividends are made from net income, after payment of the OpCo's interest and preferred dividends. In most non-financial corporate sectors where cash often moves freely between the entities in a single issuer family, this distinction may have less of an impact. However, in the regulated utility sector, barriers to movement of cash among companies in the corporate family can be much more restrictive, depending on the regulatory framework. These barriers can lead to significantly different probabilities of default for HoldCos and OpCos. Structural subordination also affects loss given default. Under most default¹³¹⁰ scenarios, an OpCo's creditors will be satisfied from the value residing at that OpCo before any of the OpCo's assets can be used to satisfy claims of the HoldCo's creditors. The prevalence of debt issuance at the OpCo level is another reason that structural subordination is usually a more serious concern in the utility sector than for investment grade issuers in other non-financial corporate sectors.

The grids for factors 1-4 are primarily oriented to OpCos (and to some degree for HoldCos with minimal current structural subordination; for example, there is no current structural subordination to debt at the operating company if all of the utility family's debt and preferred stock is issued at the HoldCo level, although there is structural subordination to other liabilities at the OpCo level). The additional risk from structural subordination is addressed via a notching adjustment to bring grid outcomes (on average) closer to the actual ratings of HoldCos.

How We Assess It

Grid-indicated ratings of holding companies may be notched down based on structural subordination. The risk factors and mitigants that impact structural subordination are varied and can be present in different combinations, such that a formulaic approach is not practical and case-by-case analyst judgment of the interaction of all pertinent factors that may increase or decrease its importance to the credit risk of an issuer are essential.

Some of the potentially pertinent factors that could increase the degree and/or impact of structural subordination include the following:

- » Regulatory or other barriers to cash movement from OpCos to HoldCo
- » Specific ring-fencing provisions
- » Strict financial covenants at the OpCo level
- » Higher leverage at the OpCo level
- » Higher leverage at the HoldCo level¹⁴
- » Significant dividend limitations or potential limitations at an important OpCo
- » HoldCo exposure to subsidiaries with high business risk or volatile cash flows

Strained liquidity at the HoldCo level

- » The group's investment program is primarily in businesses that are higher risk or new to the group

Some of the potentially mitigating factors that could decrease the degree and/or impact of structural subordination include the following:

¹² The HoldCo and OpCo may also have intercompany agreements, including tax sharing agreements, that can be another source of cash to the HoldCo.

¹³ Actual priority in a default scenario will be determined by many factors, including the corporate and bankruptcy laws of the jurisdiction, the asset value of each OpCo, specific financing terms, inter-relationships among members of the family, etc.

¹⁴ While higher leverage at the HoldCo does not increase structural subordination per se, it exacerbates the impact of any structural subordination that exists

- » Substantial diversity in cash flows from a variety of utility OpCos
- » Meaningful dividends to HoldCo from unlevered utility OpCos
- » Dependable, meaningful dividends to HoldCo from non-utility OpCos
- » The group's investment program is primarily in strong utility businesses
- » Inter-company guarantees - however, in many jurisdictions the value of an upstream guarantee may be limited by certain factors, including by the value that the OpCo received in exchange for granting the guarantee

Notching for structural subordination within the grid may range from 0 to negative 3 notches. Instances of extreme structural subordination are relatively rare, so the grid convention does not accommodate wider differences, although in the instances where we believe it is present, actual ratings do reflect the full impact of structural subordination.

A related issue is the relationship of ratings within a utility family with multiple operating companies, and sometimes intermediate holding companies. Some of the key issues are the same, such as the relative amounts of debt at the holding company level compared to the operating company level (or at one OpCo relative to another), and the degree to which operating companies have credit insulation due to regulation or other protective factors. Appendix B has additional insights on ratings within a utility family.

Rating Methodology Assumptions, Limitations, and Other Rating Considerations

The grid in this rating methodology represents a decision to favor simplicity that enhances transparency and to avoid greater complexity that might enable the grid to map more closely to actual ratings. Accordingly, the four rating factors and the notching factor in the grid do not constitute an exhaustive treatment of all of the considerations that are important for ratings of companies in the regulated electric and gas utility sector. In addition, our ratings incorporate expectations for future performance, while the financial information that is used in the grid in this document is mainly historical. In some cases, our expectations for future performance may be informed by confidential information that we can't disclose. In other cases, we estimate future results based upon past performance, industry trends, competitor actions or other factors. In either case, predicting the future is subject to the risk of substantial inaccuracy.

Assumptions that may cause our forward-looking expectations to be incorrect include unanticipated changes in any of the following factors: the macroeconomic environment and general financial market conditions, industry competition, disruptive technology, regulatory and legal actions.

Key rating assumptions that apply in this sector include our view that sovereign credit risk is strongly correlated with that of other domestic issuers, that legal priority of claim affects average recovery on different classes of debt, sufficiently to generally warrant differences in ratings for different debt classes of the same issuer, and the assumption that lack of access to liquidity is a strong driver of credit risk.

In choosing metrics for this rating methodology grid, we did not explicitly include certain important factors that are common to all companies in any industry such as the quality and experience of management, assessments of corporate governance and the quality of financial reporting and information disclosure. Therefore ranking these factors by rating category in a grid would in some cases suggest too much precision in the relative ranking of particular issuers against all other issuers that are rated in various industry sectors.

Ratings may include additional factors that are difficult to quantify or that have a meaningful effect in differentiating credit quality only in some cases, but not all. Such factors include financial controls, exposure to uncertain licensing regimes and possible government interference in some countries.

Regulatory, litigation, liquidity, technology and reputational risk as well as changes to consumer and business spending patterns, competitor strategies and macroeconomic trends also affect ratings. While these are important considerations, it is not possible precisely to express these in the rating methodology grid without making the grid excessively complex and significantly less transparent.

Ratings may also reflect circumstances in which the weighting of a particular factor will be substantially different from the weighting suggested by the grid.

This variation in weighting rating considerations can also apply to factors that we choose not to represent in the grid. For example, liquidity is a consideration frequently critical to ratings and which may not, in other circumstances, have a substantial impact in discriminating between two issuers with a similar credit profile. As an example of the limitations, ratings can be heavily affected by extremely weak liquidity that magnifies default risk. However, two identical companies might be rated the same if their only differentiating feature is that one has a good liquidity position while the other has an extremely good liquidity position.

Other Rating Considerations

We consider other factors in addition to those discussed in this report, but in most cases understanding the considerations discussed herein should enable a good approximation of our view on the credit quality of companies in the regulated electric and gas utilities sector. Ratings consider our assessment of the quality of management, corporate governance, financial controls, liquidity management, event risk and seasonality. The analysis of these factors remains an integral part of our rating process.

Liquidity and Access to Capital Markets

Liquidity analysis is a key element in the financial analysis of electric and gas utilities, and it encompasses a company's ability to generate cash from internal sources as well as the availability of external sources of financing to supplement these internal sources. Liquidity and access to financing are of particular importance in this sector. Utility assets can often have a very long useful life—30, 40 or even 60 years is not uncommon, as well as high price tags. Partly as a result of construction cycles, the utility sector has experienced prolonged periods of negative free cash flow—essentially, the sum of its dividends and its capital expenditures for maintenance and growth of its infrastructure frequently exceeds cash from operations, such that a portion of capital expenditures must routinely be debt financed. Utilities are among the largest debt issuers in the corporate universe and typically require consistent access to the capital markets to assure adequate sources of funding and to maintain financial flexibility. Substantial portions of capex are non-discretionary (for example, maintenance, adding customers to the network, or meeting environmental mandates); however, utilities were swift to cut or defer discretionary spending during the 2007-2009 recession. Dividends represent a quasi-permanent outlay, since utilities typically only rarely will cut their dividend. Liquidity is also important to meet maturing obligations, which often occur in large chunks, and to meet collateral calls under any hedging agreements.

Due to the importance of liquidity, incorporating it as a factor with a fixed weighting in the grid would suggest an importance level that is often far different from the actual weight in the rating. In normal circumstances most companies in the sector have good access to liquidity. The industry generally requires, and for the most part has, large, syndicated, multi-year committed credit facilities. In addition, utilities have demonstrated strong access to capital markets, even under difficult conditions. As a result, liquidity

generally has not been an issue for most utilities and a utility with very strong liquidity may not warrant a rating distinction compared to a utility with strong liquidity. However, when there is weakness in liquidity or liquidity management, it can be the dominant consideration for ratings.

Our assessment of liquidity for regulated utilities involves an analysis of total sources and uses of cash over the next 12 months or more, as is done for all corporates. Using our financial projections of the utility and our analysis of its available sources of liquidity (including an assessment of the quality and reliability of alternate liquidity such as committed credit facilities), we evaluate how its projected sources of cash (cash from operations, cash on hand and existing committed multi-year credit facilities) compare to its projected uses (including all or most capital expenditures, dividends, maturities of short and long-term debt, our projection of potential liquidity calls on financial hedges, and important issuer-specific items such as special tax payments). We assume no access to capital markets or additional liquidity sources, no renewal of existing credit facilities, and no cut to dividends. We examine a company's liquidity profile under this scenario, its ability to make adjustments to improve its liquidity position, and any dependence on liquidity sources with lower quality and reliability.

Management Quality and Financial Policy

The quality of management is an important factor supporting the credit strength of a regulated utility or utility holding company. Assessing the execution of business plans over time can be helpful in assessing management's business strategies, policies, and philosophies and in evaluating management performance relative to performance of competitors and our projections. A record of consistency provides us with insight into management's likely future performance in stressed situations and can be an indicator of management's tendency to depart significantly from its stated plans and guidelines.

We also assess financial policy (including dividend policy and planned capital expenditures) and how management balances the potentially competing interests of shareholders, fixed income investors and other stakeholders. Dividends and discretionary capital expenditures are the two primary components over which management has the greatest control in the short term. For holding companies, we consider the extent to which management is willing to stretch its payout ratio (through aggressive increases or delays in needed decreases) in order to satisfy common shareholders. For a utility that is a subsidiary of a parent company with several utility subsidiaries, dividends to the parent may be more volatile depending on the cash generation and cash needs of that utility, because parents typically want to assure that each utility maintains the regulatory debt/equity ratio on which its rates have been set. The effect we have observed is that utility subsidiaries often pay higher dividends when they have lower capital needs and lower dividends when they have higher capital expenditures or other cash needs. Any dividend policy that cuts into the regulatory debt/equity ratio is a material credit negative.

Size – Natural Disasters, Customer Concentration and Construction Risks

The size and scale of a regulated utility has generally not been a major determinant of its credit strength in the same way that it has been for most other industrial sectors. While size brings certain economies of scale that can somewhat affect the utility's cost structure and competitiveness, rates are more heavily impacted by costs related to fuel and fixed assets. Particularly in the US, we have not observed material differences in the success of utilities' regulatory outreach based on their size. Smaller utilities have sometimes been better able to focus their attention on meeting the expectations of a single regulator than their multi-state peers.

However, size can be a very important factor in our assessment of certain risks that impact ratings, including exposure to natural disasters, customer concentration (primarily to industrial customers in a single sector) and construction risks associated with large projects. While the grid attempts to incorporate the first two of

these into Factor 3, for some issuers these considerations may be sufficiently important that the rating reflects a greater weight for these risks. While construction projects always carry the risk of cost over-runs and delays, these risks are materially heightened for projects that are very large relative to the size of the utility.

Interaction of Utility Ratings with Government Policies and Sovereign Ratings

Compared to most industrial sectors, regulated utilities are more likely to be impacted by government actions. Credit impacts can occur directly through rate regulation, and indirectly through energy, environmental and tax policies. Government actions affect fuel prices, the mix of generating plants, the certainty and timing of revenues and costs, and the likelihood that regulated utilities will experience financial stress. While our evolving view of the impact of such policies and the general economic and financial climate is reflected in ratings for each utility, some considerations do not lend themselves to incorporation in a simple ratings grid.¹⁵

Diversified Operations at the Utility

A small number of regulated utilities have diversified operations that are segments within the utility company, as opposed to the more common practice of housing such operations in one or more separate affiliates. In general, we will seek to evaluate the other businesses that are material in accordance with the appropriate methodology and the rating will reflect considerations from such methodologies. There may be analytical limitations in evaluating the utility and non-utility businesses when segment financial results are not fully broken out and these may be addressed through estimation based on available information. Since regulated utilities are a relatively low risk business compared to other corporate sectors, in most cases diversified non-utility operations increase the business risk profile of a utility. Reflecting this tendency, we note that assigned ratings are typically lower than grid-indicated ratings for such companies.

Event Risk

We also recognize the possibility that an unexpected event could cause a sudden and sharp decline in an issuer's fundamental creditworthiness. Typical special events include mergers and acquisitions, asset sales, spin-offs, capital restructuring programs, litigation and shareholder distributions.

Corporate Governance

Among the areas of focus in corporate governance are audit committee financial expertise, the incentives created by executive compensation packages, related party transactions, interactions with outside auditors, and ownership structure.

Investment and Acquisition Strategy

In our credit assessment we take into consideration management's investment strategy. Investment strategy is benchmarked with that of the other companies in the rated universe to further verify its consistency. Acquisitions can strengthen a company's business. Our assessment of a company's tolerance for acquisitions at a given rating level takes into consideration (1) management's risk appetite, including the likelihood of further acquisitions over the medium term; (2) share buy-back activity; (3) the company's commitment to specific leverage targets; and (4) the volatility of the underlying businesses, as well as that of the business acquired. Ratings can often hold after acquisitions even if leverage temporarily climbs above normally acceptable ranges. However, this depends on (1) the strategic fit; (2) pro-forma capitalization/leverage

¹⁵ See also the cross-sector methodology "How Sovereign Credit Quality May Affect Other Ratings." A link to this and other sector and cross-sector credit rating methodologies can be found in the Related Research section of this report.

following an acquisition; and (3) our confidence that credit metrics will be restored in a relatively short timeframe.

Financial Controls

We rely on the accuracy of audited financial statements to assign and monitor ratings in this sector. Such accuracy is only possible when companies have sufficient internal controls, including centralized operations, the proper tone at the top and consistency in accounting policies and procedures.

Weaknesses in the overall financial reporting processes, financial statement restatements or delays in regulatory filings can be indications of a potential breakdown in internal controls.

Appendix A: Regulated Electric and Gas Utilities Methodology Factor Grid

Factor 1a: Legislative and Judicial Underpinnings of the Regulatory Framework (12.5%)

Aaa	Aa	A	Baa
<p>Utility regulation occurs under a fully developed framework that is national in scope based on legislation that provides the utility a nearly absolute monopoly (see note 1, within its service territory, an unquestioned assurance that rates will be set in a manner that will permit the utility to make and recover all necessary investments, an extremely high degree of clarity as to the manner in which utilities will be regulated and prescriptive methods and procedures for setting rates. Existing utility law is comprehensive and supportive such that changes in legislation are not expected to be necessary, or any changes that have occurred have been strongly supportive of utilities credit quality in general and sufficiently forward-looking so as to address problems before they occurred.</p> <p>There is an independent judiciary that can arbitrate disagreements between the regulator and the utility should they occur, including access to national courts, very strong judicial precedent in the interpretation of utility laws, and a strong rule of law. We expect these conditions to continue.</p>	<p>Utility regulation occurs under a fully developed national, state or provincial framework based on legislation that provides the utility an extremely strong monopoly (see note 1) within its service territory, a strong assurance, subject to limited review, that rates will be set in a manner that will permit the utility to make and recover all necessary investments, a very high degree of clarity as to the manner in which utilities will be regulated and reasonably prescriptive methods and procedures for setting rates. If there have been changes in utility legislation, they have been timely and clearly credit supportive of the issuer in a manner that shows the utility has had a strong voice in the process. There is an independent judiciary that can arbitrate disagreements between the regulator and the utility, should they occur including access to national courts, strong judicial precedent in the interpretation of utility laws, and a strong rule of law. We expect these conditions to continue.</p>	<p>Utility regulation occurs under a well developed national, state or provincial framework based on legislation that provides the utility a very strong monopoly (see note 1) within its service territory, an assurance, subject to reasonable prudence requirements, that rates will be set in a manner that will permit the utility to make and recover all necessary investments, a high degree of clarity as to the manner in which utilities will be regulated, and overall guidance for methods and procedures for setting rates. If there have been changes in utility legislation, they have been mostly timely and on the whole credit supportive for the issuer, and the utility has had a clear voice in the legislative process. There is an independent judiciary that can arbitrate disagreements between the regulator and the utility, should they occur, including access to national courts, clear judicial precedent in the interpretation of utility law, and a strong rule of law. We expect these conditions to continue.</p>	<p>Utility regulation occurs (i) under a national, state, provincial or municipal framework based on legislation that provides the utility a strong monopoly within its service territory that may have some exceptions such as greater self-generation (see note 1), a general assurance that, subject to prudence requirements that are mostly reasonable, rates will be set in a manner that will permit the utility to make and recover all necessary investments, reasonable clarity as to the manner in which utilities will be regulated and overall guidance for methods and procedures for setting rates, or (ii) under a new framework where independent and transparent regulation exists in other sectors. If there have been changes in utility legislation, they have been credit supportive or at least balanced for the issuer but potentially less timely, and the utility had a voice in the legislative process. There is either (i) an independent judiciary that can arbitrate disagreements between the regulator and the utility, including access to courts at least at the state or provincial level, reasonably clear judicial precedent in the interpretation of utility laws, and a generally strong rule of law; or</p> <p>(ii) regulation has been applied (under a well developed framework) in a manner such that redress to an independent arbiter has not been required. We expect these conditions to continue.</p>
Ba	B	Caa	
<p>Utility regulation occurs (i) under a national, state, provincial or municipal framework based on legislation or government decree that provides the utility a monopoly within its service territory that is generally strong but may have a greater level of exceptions (see note 1), and that, subject to prudence requirements which may be stringent, provides a general assurance (with somewhat less certainty) that rates will be set in a manner that will permit the utility to make and recover necessary investments; or (ii) under a new framework where the jurisdiction has a history of less independent and transparent regulation in other sectors. Either: (i) the judiciary that can arbitrate disagreements between the regulator and the utility may not have clear authority or may not be fully independent of the regulator or other political pressure, but there is a reasonably strong rule of law; or (ii) where there is no independent arbiter, the regulation has mostly been applied in a manner such that redress has not been required. We expect these conditions to continue.</p>	<p>Utility regulation occurs (i) under a national, state, provincial or municipal framework based on legislation or government decree that provides the utility monopoly within its service territory that is reasonably strong but may have important exceptions, and that, subject to prudence requirements which may be stringent or at times arbitrary, provides more limited or less certain assurance that rates will be set in a manner that will permit the utility to make and recover necessary investments; or (ii) under a new framework where we would expect less independent and transparent regulation, based either on the regulator's history in other sectors or other factors. The judiciary that can arbitrate disagreements between the regulator and the utility may not have clear authority or may not be fully independent of the regulator or other political pressure, but there is a reasonably strong rule of law. Alternately, where there is no independent arbiter, the regulation has been applied in a manner that often requires some redress adding more uncertainty to the regulatory framework.</p> <p>There may be a periodic risk of creditor-unfriendly government intervention in utility markets or rate-setting.</p>	<p>Utility regulation occurs (i) under a national, state, provincial or municipal framework based on legislation or government decree that provides the utility a monopoly within its service territory, but with little assurance that rates will be set in a manner that will permit the utility to make and recover necessary investments; or (ii) under a new framework where we would expect unpredictable or adverse regulation, based either on the jurisdiction's history of in other sectors or other factors. The judiciary that can arbitrate disagreements between the regulator and the utility may not have clear authority or is viewed as not being fully independent of the regulator or other political pressure. Alternately, there may be no redress to an effective independent arbiter. The ability of the utility to enforce its monopoly or prevent uncompensated usage of its system may be limited. There may be a risk of creditor-unfriendly nationalization or other significant intervention in utility markets or rate-setting.</p>	

Note 1: The strength of the monopoly refers to the legal, regulatory and practical obstacles for customers in the utility's territory to obtain service from another provider. Examples of a weakening of the monopoly would include the ability of a city or large user to leave the utility system to set up their own system, the extent to which self-generation is permitted (e.g. cogeneration) and/or encouraged (e.g., net metering, DSM generation). At the lower end of the ratings spectrum, the utility's monopoly may be challenged by pervasive theft and unauthorized use. Since utilities are generally presumed to be monopolies, a strong monopoly position in itself is not sufficient for a strong score in this sub-factor, but a weakening of the monopoly can lower the score.

* 10% weight for issuers that lack generation **0% weight for issuers that lack generation

Factor 1b: Consistency and Predictability of Regulation (12.5%)

Aaa	Aa	A	Baa
The issuer's interaction with the regulator has led to a strong, lengthy track record of predictable, consistent and favorable decisions. The regulator is highly credit supportive of the issuer and utilities in general. We expect these conditions to continue.	The issuer's interaction with the regulator has led to a considerable track record of predominantly predictable and consistent decisions. The regulator is mostly credit supportive of utilities in general and in almost all instances has been highly credit supportive of the issuer. We expect these conditions to continue.	The issuer's interaction with the regulator has led to a track record of largely predictable and consistent decisions. The regulator may be somewhat less credit supportive of utilities in general, but has been quite credit supportive of the issuer in most circumstances. We expect these conditions to continue.	The issuer's interaction with the regulator has led to an adequate track record. The regulator is generally consistent and predictable, but there may be some evidence of inconsistency or unpredictability from time to time, or decisions may at times be politically charged. However, instances of less credit supportive decisions are based on reasonable application of existing rules and statutes and are not overly punitive. We expect these conditions to continue.
Ba	B	Caa	
We expect that regulatory decisions will demonstrate considerable inconsistency or unpredictability or that decisions will be politically charged, based either on the issuer's track record of interaction with regulators or other governing bodies, or our view that decisions will move in this direction. The regulator may have a history of less credit supportive regulatory decisions with respect to the issuer, but we expect that the issuer will be able to obtain support when it encounters financial stress, with some potentially material delays. The regulator's authority may be eroded at times by legislative or political action. The regulator may not follow the framework for	We expect that regulatory decisions will be largely unpredictable or even somewhat arbitrary, based either on the issuer's track record of interaction with regulators or other governing bodies, or our view that decisions will move in this direction. However, we expect that the issuer will ultimately be able to obtain support when it encounters financial stress, albeit with material or more extended delays. Alternately, the regulator is untested, lacks a consistent track record, or is undergoing substantial change. The regulator's authority may be eroded on frequent occasions by legislative or political action. The regulator may more frequently ignore the framework in a manner detrimental to the issuer.	We expect that regulatory decisions will be highly unpredictable and frequently adverse, based either on the issuer's track record of interaction with regulators or other governing bodies, or our view that decisions will move in this direction. Alternately, decisions may have credit supportive aspects, but may often be unenforceable. The regulator's authority may have been seriously eroded by legislative or political action. The regulator may consistently ignore the framework to the detriment of the issuer.	

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Factor 2a: Timeliness of Recovery of Operating and Capital Costs (12.5%)

Aaa	Aa	A	Baa
Tariff formulas and automatic cost recovery mechanisms provide full and highly timely recovery of all operating costs and essentially contemporaneous return on all incremental capital investments, with statutory provisions in place to preclude the possibility of challenges to rate increases or cost recovery mechanisms. By statute and by practice, general rate cases are efficient, focused on an impartial review, quick, and permit inclusion of fully forward-looking costs.	Tariff formulas and automatic cost recovery mechanisms provide full and highly timely recovery of all operating costs and essentially contemporaneous or near-contemporaneous return on most incremental capital investments, with minimal challenges by regulators to companies' cost assumptions. By statute and by practice, general rate cases are efficient, focused on an impartial review, of a very reasonable duration before non-appealable interim rates can be collected, and primarily permit inclusion of forward-looking costs.	Automatic cost recovery mechanisms provide full and reasonably timely recovery of fuel, purchased power and all other highly variable operating expenses. Material capital investments may be made under tariff formulas or other rate-making permitting reasonably contemporaneous returns, or may be submitted under other types of filings that provide recovery of cost of capital with minimal delays. Instances of regulatory challenges that delay rate increases or cost recovery are generally related to large, unexpected increases in sizeable construction projects. By statute or by practice, general rate cases are reasonably efficient, primarily focused on an impartial review, of a reasonable duration before rates (either permanent or non-refundable interim rates) can be collected, and permit inclusion of important forward-looking costs.	Fuel, purchased power and all other highly variable expenses are generally recovered through mechanisms incorporating delays of less than one year, although some rapid increases in costs may be delayed longer where such deferrals do not place financial stress on the utility. Incremental capital investments may be recovered primarily through general rate cases with moderate lag, with some through tariff formulas. Alternately, there may be formula rates that are untested or unclear. Potentially greater tendency for delays due to regulatory intervention, although this will generally be limited to rates related to large capital projects or rapid increases in operating costs.
Ba	B	Caa	
There is an expectation that fuel, purchased power or other highly variable expenses will eventually be recovered with delays that will not place material financial stress on the utility, but there may be some evidence of an unwillingness by regulators to make timely rate changes to address volatility in fuel, or purchased power, or other market-sensitive expenses. Recovery of costs related to capital investments may be subject to delays that are somewhat lengthy, but not so pervasive as to be expected to discourage important investments.	The expectation that fuel, purchased power or other highly variable expenses will be recovered may be subject to material delays due to second-guessing of spending decisions by regulators or due to political intervention. Recovery of costs related to capital investments may be subject to delays that are material to the issuer, or may be likely to discourage some important investment.	The expectation that fuel, purchased power or other highly variable expenses will be recovered may be subject to extensive delays due to second-guessing of spending decisions by regulators or due to political intervention. Recovery of costs related to capital investments may be uncertain, subject to delays that are extensive, or that may be likely to discourage even necessary investment.	

Note: Tariff formulas include formula rate plans as well as trackers and riders related to capital investment.

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Factor 2b: Sufficiency of Rates and Returns (12.5%)

Aaa	Aa	A	Baa
Sufficiency of rates to cover costs and attract capital is (and will continue to be) unquestioned.	Rates are (and we expect will continue to be) set at a level that permits full cost recovery and a fair return on all investments, with minimal challenges by regulators to companies' cost assumptions. This will translate to returns (measured in relation to equity, total assets, rate base or regulatory asset value, as applicable) that are strong relative to global peers.	Rates are (and we expect will continue to be) set at a level that generally provides full cost recovery and a fair return on investments, with limited instances of regulatory challenges and disallowances. In general, this will translate to returns (measured in relation to equity, total assets, rate base or regulatory asset value, as applicable) that are generally above average relative to global peers, but may at times be average.	Rates are (and we expect will continue to be) set at a level that generally provides full operating cost recovery and a mostly fair return on investments, but there may be somewhat more instances of regulatory challenges and disallowances, although ultimate rate outcomes are sufficient to attract capital without difficulty. In general, this will translate to returns (measured in relation to equity, total assets, rate base or regulatory asset value, as applicable) that are average relative to global peers, but may at times be somewhat below average.
Ba	B	Caa	
Rates are (and we expect will continue to be) set at a level that generally provides recovery of most operating costs but return on investments may be less predictable, and there may be decidedly more instances of regulatory challenges and disallowances, but ultimate rate outcomes are generally sufficient to attract capital. In general, this will translate to returns (measured in relation to equity, total assets, rate base or regulatory asset value, as applicable) that are generally below average relative to global peers, or where allowed returns are average but difficult to earn. Alternately, the tariff formula may not take into account all cost components and/or remuneration of investments may be unclear or at times unfavorable.	We expect rates will be set at a level that at times fails to provide recovery of costs other than cash costs, and regulators may engage in somewhat arbitrary second-guessing of spending decisions or deny rate increases related to funding ongoing operations based much more on politics than on prudence reviews. Return on investments may be set at levels that discourage investment. We expect that rate outcomes may be difficult or uncertain, negatively affecting continued access to capital. Alternately, the tariff formula may fail to take into account significant cost components other than cash costs, and/or remuneration of investments may be generally unfavorable.	We expect rates will be set at a level that often fails to provide recovery of material costs, and recovery of cash costs may also be at risk. Regulators may engage in more arbitrary second-guessing of spending decisions or deny rate increases related to funding ongoing operations based primarily on politics. Return on investments may be set at levels that discourage necessary maintenance investment. We expect that rate outcomes may often be punitive or highly uncertain, with a markedly negative impact on access to capital. Alternately, the tariff formula may fail to take into account significant cash cost components, and/or remuneration of investments may be primarily unfavorable.	

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Factor 3: Diversification (10%)

Weighting 10%	Sub-Factor Weighting	Aaa	Aa	A	Baa
Market Position	5% *	A very high degree of multinational and regional diversity in terms of regulatory regimes and/or service territory economies.	Material operations in three or more nations or substantial geographic regions providing very good diversity of regulatory regimes and/or service territory economies.	Material operations in two to three nations, states, provinces or regions that provide good diversity of regulatory regimes and service territory economies. Alternately, operates within a single regulatory regime with low volatility, and the service territory economy is robust, has a very high degree of diversity and has demonstrated resilience in economic cycles.	May operate under a single regulatory regime viewed as having low volatility, or where multiple regulatory regimes are not viewed as providing much diversity. The service territory economy may have some concentration and cyclicality, but is sufficiently resilient that it can absorb reasonably foreseeable increases in utility rates.
Generation and Fuel Diversity	5% **	A high degree of diversity in terms of generation and/or fuel sources such that the utility and rate-payers are well insulated from commodity price changes, no generation concentration, and very low exposures to Challenged or Threatened Sources (see definitions below).	Very good diversification in terms of generation and/or fuel sources such that the utility and rate-payers are affected only minimally by commodity price changes, little generation concentration, and low exposures to Challenged or Threatened Sources.	Good diversification in terms of generation and/or fuel sources such that the utility and rate-payers have only modest exposure to commodity price changes; however, may have some concentration in a source that is neither Challenged nor Threatened. Exposure to Threatened Sources is low. While there may be some exposure to Challenged Sources, it is not a cause for concern.	Adequate diversification in terms of generation and/or fuel sources such that the utility and rate-payers have moderate exposure to commodity price changes; however, may have some concentration in a source that is Challenged. Exposure to Threatened Sources is moderate, while exposure to Challenged Sources is manageable.
	Sub-Factor Weighting	Ba	B	Caa	Definitions
Market Position	5% *	Operates in a market area with somewhat greater concentration and cyclicality in the service territory economy and/or exposure to storms and other natural disasters, and thus less resilience to absorbing reasonably foreseeable increases in utility rates. May show somewhat greater volatility in the regulatory regime(s).	Operates in a limited market area with material concentration and more severe cyclicality in service territory economy such that cycles are of materially longer duration or reasonably foreseeable increases in utility rates could present a material challenge to the economy. Service territory may have geographic concentration that limits its resilience to storms and other natural disasters, or may be an emerging market. May show decided volatility in the regulatory regime(s).	Operates in a concentrated economic service territory with pronounced concentration, macroeconomic risk factors, and/or exposure to natural disasters.	Challenged Sources are generation plants that face higher but not insurmountable economic hurdles resulting from penalties or taxes on their operation, or from environmental upgrades that are required or likely to be required. Some examples are carbon-emitting plants that incur carbon taxes, plants that must buy emissions credits to operate, and plants that must install environmental equipment to continue to operate, in each where the taxes/credits/upgrades are sufficient to have a material impact on those plants' competitiveness relative to other generation types or on the utility's rates, but where the impact is not so severe as to be likely require plant closure.
Generation and Fuel Diversity	5% **	Modest diversification in generation and/or fuel sources such that the utility or rate-payers have greater exposure to commodity price changes. Exposure to Challenged and Threatened Sources may be more pronounced, but the utility will be able to access alternative sources without undue financial stress.	Operates with little diversification in generation and/or fuel sources such that the utility or rate-payers have high exposure to commodity price changes. Exposure to Challenged and Threatened Sources may be high, and accessing alternate sources may be challenging and cause more financial stress, but ultimately feasible.	Operates with high concentration in generation and/or fuel sources such that the utility or rate-payers have exposure to commodity price shocks. Exposure to Challenged and Threatened Sources may be very high, and accessing alternate sources may be highly uncertain.	Threatened Sources are generation plants that are not currently able to operate due to major unplanned outages or issues with licensing or other regulatory compliance, and plants that are highly likely to be required to de-activate, whether due to the effectiveness of currently existing or expected rules and regulations or due to economic challenges. Some recent examples would include coal fired plants in the US that are not economic to retro-fit to meet mercury and air toxics standards, plants that cannot meet the effective date of those standards, nuclear plants in Japan that have not been licensed to re-start after the Fukushima Dai-ichi accident, and nuclear plants that are required to be phased out within 10 years (as is the case in some European countries).

* 10% weight for Issuers that lack generation **0% weight for Issuers that lack generation

Factor 4: Financial Strength

Weighting 40%	Sub-Factor Weighting		Aaa	Aa	A	Baa	Ba	B	Caa
CFO pre-WC + Interest / Interest	7.5%		≥ 8x	6x - 8x	4.5x - 6x	3x - 4.5x	2x - 3x	1x - 2x	< 1x
		Standard Grid	≥ 40%	30% - 40%	22% - 30%	13% - 22%	5% - 13%	1% - 5%	< 1%
CFO pre-WC / Debt	15%								
		Low Business Risk Grid	≥ 38%	27% - 38%	19% - 27%	11% - 19%	5% - 11%	1% - 5%	< 1%
		Standard Grid	≥ 35%	25% - 35%	17% - 25%	9% - 17%	0% - 9%	(5%) - 0%	< (5%)
CFO pre-WC - Dividends / Debt	10%								
		Low Business Risk Grid	≥ 34%	23% - 34%	15% - 23%	7% - 15%	0% - 7%	(5%) - 0%	< (5%)
		Standard Grid	< 25%	25% - 35%	35% - 45%	45% - 55%	55% - 65%	65% - 75%	≥ 75%
Debt / Capitalization	7.5%								
		Low Business Risk Grid	< 29%	29% - 40%	40% - 50%	50% - 59%	59% - 67%	67% - 75%	≥ 75%

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Appendix B: Approach to Ratings within a Utility Family

Typical Composition of a Utility Family

A typical utility company structure consists of a holding company ("HoldCo") that owns one or more operating subsidiaries (each an "OpCo"). OpCos may be regulated utilities or non-utility companies. Financing of these entities varies by region, in part due to the regulatory framework. A HoldCo typically has no operations – its assets are mostly limited to its equity interests in subsidiaries, and potentially other investments in subsidiaries or minority interests in other companies. However, in certain cases there may be material operations at the HoldCo level. Financing can occur primarily at the OpCo level, primarily at the HoldCo level, or at both HoldCo and OpCos in varying proportions. When a HoldCo has multiple utility OpCos, they will often be located in different regulatory jurisdictions. A HoldCo may have both levered and unlevered OpCos.

General Approach to a Utility Family

In our analysis, we generally consider the stand-alone credit profile of an OpCo and the credit profile of its ultimate parent HoldCo (and any intermediate HoldCos), as well as the profile of the family as a whole, while acknowledging that these elements can have cross-family credit implications in varying degrees, principally based on the regulatory framework of the OpCos and the financing model (which has often developed in response to the regulatory framework).

In addition to considering individual OpCos under this (or another applicable) methodology, we typically¹⁶ approach a HoldCo rating by assessing the qualitative and quantitative factors in this methodology for the consolidated entity and each of its utility subsidiaries. Ratings of individual entities in the issuer family may be pulled up or down based on the interrelationships among the companies in the family and their relative credit strength.

In considering how closely aligned or how differentiated ratings should be among members of a utility family, we assess a variety of factors, including:

- » Regulatory or other barriers to cash movement among OpCos and from OpCos to HoldCo
- » Differentiation of the regulatory frameworks of the various OpCos
- » Specific ring-fencing provisions at particular OpCos
- » Financing arrangements – for instance, each OpCo may have its own financing arrangements, or the sole liquidity facility may be at the parent; there may be a liquidity pool among certain but not all members of the family; certain members of the family may better be able to withstand a temporary hiatus of external liquidity or access to capital markets
- » Financial covenants and the extent to which an Event of Default by one OpCo limits availability of liquidity to another member of the family
- » The extent to which higher leverage at one entity increases default risk for other members of the family
- » An entity's exposure to or insulation from an affiliate with high business risk
- » Structural features or other limitations in financing agreements that restrict movements of funds, investments, provision of guarantees or collateral, etc.

¹⁶ See paragraph at the end of this section for approaches to Hybrid HoldCos.

» The relative size and financial significance of any particular OpCo to the HoldCo and the family
See also those factors noted in Notching for Structural Subordination of Holding Companies.

Our approach to a Hybrid HoldCo (see definition in Appendix C) depends in part on the importance of its non-utility operations and the availability of information on individual businesses. If the businesses are material and their individual results are fully broken out in financial disclosures, we may be able to assess each material business individually by reference to the relevant Moody's methodologies to arrive at a composite assessment for the combined businesses. If non-utility operations are material but are not broken out in financial disclosures, we may look at the consolidated entity under more than one methodology. When non-utility operations are less material but could still impact the overall credit profile, the difference in business risks and our estimation of their impact on financial performance will be qualitatively incorporated in the rating.

Higher Barriers to Cash Movement with Financing Predominantly at the OpCos

Where higher barriers to cash movement exist on an OpCo or OpCos due to the regulatory framework or debt structural features, ratings among family members are likely to be more differentiated. For instance, for utility families with OpCos in the US, where regulatory barriers to free cash movement are relatively high, greater importance is generally placed on the stand-alone credit profile of the OpCo.

Our observation of major defaults and bankruptcies in the US sector generally corroborates a view that regulation creates a degree of separateness of default probability. For instance, Portland General Electric (Baa1 RUR-up) did not default on its securities, even though its then-parent Enron Corp. entered bankruptcy proceedings. When Entergy New Orleans (Ba2 stable) entered into bankruptcy, the ratings of its affiliates and parent Entergy Corporation (Baa3 stable) were unaffected. PG&E Corporation (Baa1 stable) did not enter bankruptcy proceedings despite bankruptcies of two major subsidiaries - Pacific Gas & Electric Company (A3 stable) in 2001 and National Energy Group in 2003.

The degree of separateness may be greater or smaller and is assessed on a case by case basis, because situational considerations are important. One area we consider is financing arrangements. For instance, there will tend to be greater differentiation if each member of a family has its own bank credit facilities and difficulties experienced by one entity would not trigger events of default for other entities. While the existence of a money pool might appear to reduce separateness between the participants, there may be regulatory barriers within money pools that preserve separateness. For instance, non-utility entities may have access to the pool only as a borrower, only as a lender, and even the utility entities may have regulatory limits on their borrowings from the pool or their credit exposures to other pool members. If the only source of external liquidity for a money pool is borrowings by the HoldCo under its bank credit facilities, there would be less separateness, especially if the utilities were expected to depend on that liquidity source. However, the ability of an OpCo to finance itself by accessing capital markets must also be considered. Inter-company tax agreements can also have an impact on our view of how separate the risks of default are.

For a HoldCo, the greater the regulatory, economic, and geographic diversity of its OpCos, the greater its potential separation from the default probability of any individual subsidiary. Conversely, if a HoldCo's actions have made it clear that the HoldCo will provide support for an OpCo encountering some financial stress (for instance, due to delays and/or cost over-runs on a major construction project), we would be likely to perceive less separateness.

Even where high barriers to cash movement exist, onerous leverage at a parent company may not only give rise to greater notching for structural subordination at the parent, it may also pressure an OpCo's rating, especially when there is a clear dependence on an OpCo's cash flow to service parent debt.

While most of the regulatory barriers to cash movement are very real, they are not absolute. Furthermore, while it is not usually in the interest of an insolvent parent or its creditors to bring an operating utility into a bankruptcy proceeding, such an occurrence is not impossible.

The greatest separateness occurs where strong regulatory insulation is supplemented by effective ring-fencing provisions that fully separate the management and operations of the OpCo from the rest of the family and limit the parent's ability to cause the OpCo to commence bankruptcy proceedings as well as limiting dividends and cash transfers. Typically, most entities in US utility families (including HoldCos and OpCos) are rated within 3 notches of each other. However, it is possible for the HoldCo and OpCos in a family to have much wider notching due to the combination of regulatory imperatives and strong ring-fencing that includes a significant minority shareholder who must agree to important corporate decisions, including a voluntary bankruptcy filing.

Lower Barriers to Cash Movement with Financing Predominantly at the OpCos

Our approach to rating issuers within a family where there are lower regulatory barriers to movement of cash from OpCos to HoldCos (e.g., many parts of Asia and Europe) places greater emphasis on the credit profile of the consolidated group. Individual OpCos are considered based on their individual characteristics and their importance to the family, and their assigned ratings are typically banded closely around the consolidated credit profile of the group due to the expectation that cash will transit relatively freely among family entities.

Some utilities may have OpCos in jurisdictions where cash movement among certain family members is more restricted by the regulatory framework, while cash movement from and/or among OpCos in other jurisdictions is less restricted. In these situations, OpCos with more restrictions may vary more widely from the consolidated credit profile while those with fewer restrictions may be more tightly banded around the other entities in the corporate family group.

Appendix C: Brief Descriptions of the Types of Companies Rated Under This Methodology

The following describes the principal categories of companies rated under this methodology:

Vertically Integrated Utility: Vertically integrated utilities are regulated electric or combination utilities (see below) that own generation, distribution and (in most cases) electric transmission assets. Vertically integrated utilities are generally engaged in all aspects of the electricity business. They build power plants, procure fuel, generate power, build and maintain the electric grid that delivers power from a group of power plants to end-users (including high and low voltage lines, transformers and substations), and generally meet all of the electric needs of the customers in a specific geographic area (also called a service territory). The rates or tariffs for all of these monopolistic activities are set by the relevant regulatory authority.

Transmission & Distribution Utility: Transmission & Distribution utilities (T&Ds) typically operate in deregulated markets where generation is provided under a competitive framework. T&Ds own and operate the electric grid that transmits and/or distributes electricity within a specific state or region.

T&Ds provide electrical transportation and distribution services to carry electricity from power plants and transmission lines to retail, commercial, and industrial customers. T&Ds are typically responsible for billing customers for electric delivery and/or supply, and most have an obligation to provide a standard supply or provider-of-last-resort (POLR) service to customers that have not switched to a competitive supplier. These factors distinguish T&Ds from Networks, whose customers are retail electric suppliers and/or other electricity companies. In a smaller number of cases, T&Ds rated under this methodology may not have an obligation to provide POLR services, but are regulated in sub-sovereign jurisdictions. The rates or tariffs for these monopolistic T&D activities are set by the relevant regulatory authority.

Local Gas Distribution Company: Distribution is the final step in delivering natural gas to customers. While some large industrial, commercial, and electric generation customers receive natural gas directly from high capacity pipelines that carry gas from gas producing basins to areas where gas is consumed, most other users receive natural gas from their local gas utility, also called a local distribution company (LDC). LDCs are regulated utilities involved in the delivery of natural gas to consumers within a specific geographic area. Specifically, LDCs typically transport natural gas from delivery points located on large-diameter pipelines (that usually operate at fairly high pressure) to households and businesses through thousands of miles of small-diameter distribution pipe (that usually operate at fairly low pressure). LDCs are typically responsible for billing customers for gas delivery and/or supply, and most also have the responsibility to procure gas for at least some of their customers, although in some markets gas supply to all customers is on a competitive basis. These factors distinguish LDCs from gas networks, whose customers are retail gas suppliers and/or other natural gas companies. The rates or tariffs for these monopolistic activities are set by the relevant regulatory authority.

Integrated Gas Utility: Integrated gas regulated utilities are regulated utilities that deliver gas to all end users in a particular service territory by sourcing the commodity; operating transport infrastructure that often combines high pressure pipelines with low pressure distribution systems and, in some cases, gas storage, re-gasification or other related facilities; and performing other supply-related activities, such as customer billing and metering. The rates or tariffs for the totality of these activities are set by the relevant regulatory authority. Many integrated gas utilities are national in scope.

Combination Utility: Combination utilities are those that combine an LDC or Integrated Gas Utility with either a vertically integrated utility or a T&D utility. The rates or tariffs for these monopolistic activities are set by the relevant regulatory authority.

Regulated Generation Utility: Regulated generation utilities (Regulated Gencos) are utilities that almost exclusively have generation assets, but their activities are generally regulated like those of vertically integrated utilities. In the US, this means that the purchasers of their output (typically other investor-owned, municipal or cooperative utilities) pay a regulated rate based on the total allowed costs of the Regulated Genco, including a return on equity based on a capital structure designated by the regulator (primarily FERC). Companies that have been included in this group include certain generation companies (including in Korea and China) that are not rate regulated in the usual sense of recovering costs plus a regulated rate of return on either equity or asset value. Instead, we have looked at a combination of governmental action with respect to setting feed-in tariffs and directives on how much generation will be built (or not built) in combination with a generally high degree of government ownership, and we have concluded that these companies are currently best rated under this methodology. Future evolution in our view of the operating and/or regulatory environment of these companies could lead us to conclude that they may be more appropriately rated under a related methodology (for example, Unregulated Utilities and Power Companies).

Independent System Operator: An Independent System Operator (ISO) is an organization formed in certain regional electricity markets to act as the sole chief coordinator of an electric grid. In the areas where an ISO is established, it coordinates, controls and monitors the operation of the electrical power system to assure that electric supply and demand are balanced at all times, and, to the extent possible, that electric demand is met with the lowest-cost sources. ISOs seek to assure adequate transmission and generation resources, usually by identifying new transmission needs and planning for a generation reserve margin above expected peak demand. In regions where generation is competitive, they also seek to establish rules that foster a fair and open marketplace, and they may conduct price-setting auctions for energy and/or capacity. The generation resources that an ISO coordinates may belong to vertically integrated utilities or to independent power producers. ISOs may not be rate-regulated in the traditional sense, but fall under governmental oversight. All participants in the regional grid are required to pay a fee or tariff (often volumetric) to the ISO that is designed to recover its costs, including costs of investment in systems and equipment needed to fulfill their function. ISOs may be for profit or not-for-profit entities.

In the US, most ISOs were formed at the direction or recommendation of the Federal Energy Regulatory Commission (FERC), but the ISO that operates solely in Texas falls under state jurisdiction. Some US ISOs also perform certain additional functions such that they are designated as Regional Transmission Organizations (or RTOs).

Transmission-Only Utility: Transmission-only utilities are solely focused on owning and operating transmission assets. The transmission lines these utilities own are typically high-voltage and allow energy producers to transport electric power over long distances from where it is generated (or received) to the transmission or distribution system of a T&D or vertically integrated utility. Unlike most of the other utilities rated under this methodology, transmission-only utilities primarily provide services to other utilities and ISOs. Transmission-only utilities in most parts of the world other than the US have been rated under the Regulated Networks methodology.

Utility Holding Company (Utility HoldCo): As detailed in Appendix B, regulated electric and gas utilities are often part of corporate families under a parent holding company. The operating subsidiaries of Utility Holdcos are overwhelmingly regulated electric and gas utilities.

Hybrid Holding Company (Hybrid HoldCo): Some utility families contain a mix of regulated electric and gas utilities and other types of companies, but the regulated electric and gas utilities represent the majority of the consolidated cash flows, assets and debt. The parent company is thus a Hybrid HoldCo.

Appendix D: Key Industry Issues Over the Intermediate Term

Political and Regulatory Issues

As highly regulated monopolistic entities, regulated utilities continually face political and regulatory risk, and managing these risks through effective outreach to key customers as well as key political and regulatory decision-makers is, or at least should be, a core competency of companies in this sector. However, larger waves of change in the political, regulatory or economic environment have the potential to cause substantial changes in the level of risk experienced by utilities and their investors in somewhat unpredictable ways.

One of the more universal risks faced by utilities currently is the compression of allowed returns. A long period of globally low interest rates, held down by monetary stimulus policies, has generally benefited utilities, since reductions in allowed returns have been slower than reductions in incurred capital costs. Essentially all regulated utilities face a ratcheting down of allowed and/or earned returns. More difficult to predict is how regulators will respond when monetary stimulus reverses, and how well utilities will fare when fixed income investors require higher interest rates and equity investors require higher total returns and growth prospects.

The following global snapshot highlights that regulatory frameworks evolve over time. On an overall basis in the US over the past several years, we have noted some incremental positive regulatory trends, including greater use of formula rates, trackers and riders, and (primarily for natural gas utilities) de-coupling of returns from volumetric sales. In Canada, the framework has historically been viewed as predictable and stable, which has helped offset somewhat lower levels of equity in the capital structure, but the compression of returns has been relatively steep in recent years. In Japan, the regulatory authorities are working through the challenges presented by the decision to shut down virtually all of the country's nuclear generation capacity, leading to uncertainty regarding the extent to which increased costs will be reflected in rate increases sufficient to permit returns on capital to return to prior levels. China's regulatory framework has continued to evolve, with fairly low transparency and some time-to-time shifts in favored versus less-favored generation sources balanced by an overall state policy of assuring sustainability of the sector, adequate supply of electricity and affordability to the general public. Singapore and Hong Kong have fairly well developed and supportive regulatory frameworks despite a trend towards lower returns, whereas Malaysia, Korea and Thailand have been moving towards a more transparent regulatory framework. The Philippines is in the process of deregulating its power market, while Indian power utilities continue to grapple with structural challenges. In Latin America, there is a wide dispersion among frameworks, ranging from the more stable, long established and predictable framework in Chile to the decidedly unpredictable framework in Argentina. Generally, as Latin American economies have evolved to more stable economic policies, regulatory frameworks for utilities have also shown greater stability and predictability.

All of the other issues discussed in this section have a regulatory/political component, either as the driver of change or in reaction to changes in economic environments and market factors.

Economic and Financial Market Conditions

As regulated monopolies, electric and gas utilities have generally been quite resistant to unsettled economic and financial market conditions for several reasons. Unlike many companies that face direct market-based competition, their rates do not decrease when demand decreases. The elasticity of demand for electricity and gas is much lower than for most products in the consumer economy.

When financial markets are volatile, utilities often have greater capital market access than industrial companies in competitive sectors, as was the case in the 2007-2009 recession. However, regulated electric and gas utilities are by no means immune to a protracted or severe recession.

Severe economic malaise can negatively affect utility credit profiles in several ways. Falling demand for electricity or natural gas may negatively impact margins and debt service protection measures, especially when rates are designed such that a substantial portion of fixed costs is in theory recovered through volumetric charges. The decrease in demand in the 2007-2009 recession was notable in comparison to prior recessions, especially in the residential sector. Poor economic conditions can make it more difficult for regulators to approve needed rate increases or provide timely cost recovery for utilities, resulting in higher cost deferrals and longer regulatory lag. Finally, recessions can coincide with a lack of confidence in the utility sector that impacts access to capital markets for a period of time. For instance, in the Great Depression and (to a lesser extent) in the 2001 recession, access for some issuers was curtailed due to the sector's generally higher leverage than other corporate sectors, combined with a concern over a lack of transparency in financial reporting.

Fuel Price Volatility and the Global Impact of Shale Gas

The ability of most utilities to pass through their fuel costs to end users may insulate a utility from exposure to price volatility of these fuels, but it does not insulate consumers. Consumers and regulators complained vociferously about utility rates during the run-up in hydro-carbon prices in 2005-2008 (oil, natural gas and, to a lesser extent, coal). The steep decline in US natural gas prices since 2009, caused in large part by the development of shale gas and shale oil resources, has been a material benefit to US utilities, because many have been able to pass through substantial base rate increases during a period when all-in rates were declining. Shale hydro-carbons have also had a positive impact, albeit one that is less immediate and direct, on non-US utilities. In much of the eastern hemisphere, natural gas prices under long-term contracts have generally been tied to oil prices, but utilities and other industrial users have started to have some success in negotiating to de-link natural gas from oil. In addition, increasing US production of oil has had a noticeable impact on world oil prices, generally benefitting oil and gas users.

Not all utilities will benefit equally. Utilities that have locked in natural gas under high-priced long-term contracts that they cannot re-negotiate are negatively impacted if they cannot pass through their full contracted cost of gas, or if the high costs cause customer dissatisfaction and regulatory backlash. Utilities with large coal fleets or utilities constructing nuclear power plants may also face negative impacts on their regulatory environment, since their customers will benefit less from lower natural gas prices.

Distributed Generation Versus the Central Station Paradigm

The regulation and the financing of electric utilities are based on the premise that the current model under which electricity is generated and distributed to customers will continue essentially unchanged for many decades to come. This model, called the central station paradigm (because electricity is generated in large, centrally located plants and distributed to a large number of customers, who may in fact be hundreds of miles away), has been in place since the early part of the 20th century. The model has worked because the economies of scale inherent to very large power plants has more than offset the cost and inefficiency (through power losses) inherent to maintaining a grid for transmitting and distributing electricity to end users.

Despite rate structures that only allow recovery of invested capital over many decades (up to 60 years), utilities can attract capital because investors assume that rates will continue to be collected for at least that long a period. Regulators and politicians assume that taxes and regulatory charges levied on electricity usage will be paid by a broad swath of residences and businesses and will not materially discourage usage of electricity in a way that would decrease the amount of taxes collected. A corollary assumption is that the number of customers taking electricity from the system during that period will continue to be high enough such that rates will be reasonable and generally more attractive than other alternatives. In the event that consumers were to switch en masse to alternate sources of generating or receiving power (for instance

distributed generation), rates for remaining customers would either not cover the utility's costs, or rates would need to be increased so much that more customers may be incentivized to leave the system. This scenario has been experienced in the regulated US copper wire telephone business, where rates have increased quite dramatically for users who have not switched to digital or wireless telephone service. While this scenario continues to be unlikely for the electricity sector, distributed generation, especially from solar panels, has made inroads in certain regions.

Distributed generation is any retail-scale generation, differentiated from self-generation, which generally describes a large industrial plant that builds its own reasonably large conventional power plant to meet its own needs. While some residential property owners that install distributed generation may choose to sever their connection to the local utility, most choose to remain connected, generating power into the grid when it is both feasible and economic to do so, and taking power from the grid at other times. Distributed generation is currently concentrated in roof-top photovoltaic solar panels, which have benefitted from varying levels of tax incentives in different jurisdictions.

Regulatory treatment has also varied, but some rate structures that seek to incentivize distributed renewable energy are decidedly credit negative for utilities, in particular net metering.

Under net metering, a customer receives a credit from the utility for all of its generation at the full (or nearly full) retail rate and pays only for power taken, also at the retail rate, resulting in a materially reduced monthly bill relative to a customer with no distributed generation. The distributed generation customer has no obligation to generate any particular amount of power, so the utility must stand ready to generate and deliver that customer's full power needs at all times. Since most utility costs, including the fixed costs of financing and maintaining generation and delivery systems, are currently collected through volumetric rates, a customer owning distributed generation effectively transfers a portion of the utility's costs of serving that customer to other customers with higher net usage, notably to customers that do not own distributed generation. The higher costs may incentivize more customers to install solar panels, thereby shifting the utility's fixed costs to an even smaller group of rate-payers. California is an example of a state employing net solar metering in its rate structure, whereas in New Jersey, which has the second largest residential solar program in the US, utilities buy power at a price closer to their blended cost of generation, which is much lower than the retail rate.

To date, solar generation and net metering have not had a material credit impact on any utilities, but ratings could be negatively impacted if the programs were to grow and if rate structures were not amended so that each customer's monthly bill more closely approximated the cost of serving that customer.

In our current view, the possibility that there will be a widespread movement of electric utility customers to sever themselves from the grid is remote. However, we acknowledge that new technologies, such as the development of commercially viable fuel cells and/or distributed electric storage, could disrupt materially the central station paradigm and the credit quality of the utility sector.

Nuclear Issues

Utilities with nuclear generation face unique safety, regulatory, and operational issues. The nuclear disaster at Fukushima Daiichi had a severely negative credit impact on its owner, Tokyo Electric Power Company, Incorporated, as well as all the nuclear utilities in the country. Japan previously generated about 30% of its power from 50 reactors, but all are currently either idled or shut down, and utilities in the country face materially higher costs of replacement power, a credit negative.

Fukushima Daiichi also had global consequences. Germany's response was to require that all nuclear power plants in the country be shut by 2022. Switzerland opted for a phase-out by 2031. (Most European nuclear plants are owned by companies rated under other the Unregulated Utilities and Power Companies methodology.) Even in countries where the regulatory response was more moderate, increased regulatory scrutiny has raised operating costs, a credit negative, especially in the US, where low natural gas prices have rendered certain primarily smaller nuclear plants uneconomic. Nonetheless, we view robust and independent nuclear safety regulation as a credit-positive for the industry.

Other general issues for nuclear operators include higher costs and lower reliability related to the increasing age of the fleet. In 2013, Duke Energy Florida, Inc. decided to shut permanently Crystal River Unit 3 after it determined that a de-lamination (or separation) in the concrete of the outer wall of the containment building was uneconomic to repair. San Onofre Nuclear Generating Station was closed permanently in 2013 after its owners, including Southern California Edison Company (A3, RUR-up) and San Diego Gas & Electric Company (A2, RUR-up), decided not to pursue a re-start in light of operating defects in two steam generators that had been replaced in 2010 and 2011.

Korea Hydro and Nuclear Power Company Limited and its parent, Korea Electric Power Corporation, faced a scandal related to alleged corruption and acceptance of falsified safety documents provided by its parts suppliers for nuclear plants. Korean prosecutors' widening probe into KHNP's use of substandard parts at many of its 23 nuclear power plants caused three plants to be shut down temporarily.

Appendix E: Regional and Other Considerations

Notching Considerations for US First Mortgage Bonds

In most regions, our approach to notching between different debt classes of the same regulated utility issuer follows the guidance in the publication "Updated Summary Guidance for Notching Bonds, Preferred Stocks and Hybrid Securities of Corporate Issuers," including a one notch differential between senior secured and senior unsecured debt.¹⁷ However, in most cases we have two notches between the first mortgage bonds and senior unsecured debt of regulated electric and gas utilities in the US.

Wider notching differentials between debt classes may also be appropriate in speculative grade. Additional insights for speculative grade issuers are provided in the publication "Loss Given Default for Speculative-Grade Companies."¹⁸

First mortgage bond holders in the US generally benefit from a first lien on most of the fixed assets used to provide utility service, including such assets as generating stations, transmission lines, distribution lines, switching stations and substations, and gas distribution facilities, as well as a lien on franchise agreements. In our view, the critical nature of these assets to the issuers and to the communities they serve has been a major factor that has led to very high recovery rates for this class of debt in situations of default, thereby justifying a two notch uplift. The combination of the breadth of assets pledged and the bankruptcy-tested recovery experience has been unique to the US.

In some cases, there is only a one notch differential between US first mortgage bonds and the senior unsecured rating. For instance, this is likely when the pledged property is not considered critical infrastructure for the region, or if the mortgage is materially weakened by carve-outs, lien releases or similar creditor-unfriendly terms.

Securitization

The use of securitization, a financing technique utilizing a discrete revenue stream (typically related to recovery of specifically defined expenses) that is dedicated to servicing specific securitization debt, has primarily been used in the US, where it has been quite pervasive in the past two decades. The first generation of securitization bonds were primarily related to recovery of the negative difference between the market value of utilities' generation assets and their book value when certain states switched to competitive electric supply markets and utilities sold their generation (so-called stranded costs). This technique was then used for significant storm costs (especially hurricanes) and was eventually broadened to include environmental related expenditures, deferred fuel costs, or even deferred miscellaneous expenses. States that have implemented securitization frameworks include Arkansas, California, Connecticut, Illinois, Louisiana, Maryland, Massachusetts, Mississippi, New Hampshire, New Jersey, Ohio, Pennsylvania, Texas and West Virginia. In its simplest form, a securitization isolates and dedicates a stream of cash flow into a separate special purpose entity (SPE). The SPE uses that stream of revenue and cash flow to provide annual debt service for the securitized debt instrument. Securitization is typically underpinned by specific legislation to segregate the securitization revenues from the utility's revenues to assure their continued collection, and the details of the enabling legislation may vary from state to state. The utility benefits from the securitization because it receives an immediate source of cash (although it gives up the opportunity to earn a return on the corresponding asset), and ratepayers benefit because the cost of the

¹⁷ A link to this and other sector and cross-sector credit rating methodologies can be found in the Related Research section of this report.

¹⁸ A link to this and other sector and cross-sector credit rating methodologies can be found in the Related Research section of this report.

securitized debt is lower than the utility's cost of debt and much lower than its all-in cost of capital, which reduces the revenue requirement associated with the cost recovery.

In the presentation of US securitization debt in published financial ratios, we make our own assessment of the appropriate credit representation but in most cases follows the accounting in audited statements under US Generally Accepted Accounting Principles (GAAP), which in turn considers the terms of enabling legislation. As a result, accounting treatment may vary. In most states utilities have been required to consolidate securitization debt under GAAP, even though it is technically non-recourse.

In general, we view securitization debt of utilities as being on-credit debt, in part because the rates associated with it reduce the utility's headroom to increase rates for other purposes while keeping all-in rates affordable to customers. Thus, where accounting treatment is off balance sheet, we seek to adjust the company's ratios by including the securitization debt and related revenues for our analysis. Where the securitized debt is on balance sheet, our credit analysis also considers the significance of ratios that exclude securitization debt and related revenues. Since securitization debt amortizes mortgage-style, including it makes ratios look worse in early years (when most of the revenue collected goes to pay interest) and better in later years (when most of the revenue collected goes to pay principal).

Strong levels of government ownership in Asia Pacific (ex-Japan) provide rating uplift

Strong levels of government ownership have dominated the credit profiles of utilities in Asia Pacific (excluding Japan), generally leading to ratings that are a number of notches above the Baseline Credit Assessment. Regulated electric and gas utilities with significant government ownership are rated using this methodology in conjunction with the Joint Default Analysis approach in our methodology for Government-Related Issuers.¹⁹

Support system for large corporate entities in Japan can provide ratings uplift, with limits

Our ratings for large corporate entities in Japan reflect the unique nature of the country's support system, and they are higher than they would otherwise be if such support were disregarded. This is reflected in the tendency for ratings of Japanese utilities to be higher than their grid implied ratings. However, even for large prominent companies, our ratings consider that support will not be endless and is less likely to be provided when a company has questionable viability rather than being in need of temporary liquidity assistance.

¹⁹ A link to this and other sector and cross-sector credit rating methodologies can be found in the Related Research section of this report.

Appendix F: Treatment of Power Purchase Agreements ("PPAs")

Although many utilities own and operate power stations, some have entered into PPAs to source electricity from third parties to satisfy retail demand. The motivation for these PPAs may be one or more of the following: to outsource operating risks to parties more skilled in power station operation, to provide certainty of supply, to reduce balance sheet debt, to fix the cost of power, or to comply with regulatory mandates regarding power sourcing, including renewable portfolio standards. While we regard PPAs that reduce operating or financial risk as a credit positive, some aspects of PPAs may negatively affect the credit of utilities. The most conservative treatment would be to treat a PPA as a debt obligation of the utility as, by paying the capacity charge, the utility is effectively providing the funds to service the debt associated with the power station. At the other end of the continuum, the financial obligations of the utility could also be regarded as an ongoing operating cost, with no long-term capital component recognized.

Under most PPAs, a utility is obliged to pay a capacity charge to the power station owner (which may be another utility or an Independent Power Producer – IPP); this charge typically covers a portion of the IPP's fixed costs in relation to the power available to the utility. These fixed payments usually help to cover the IPP's debt service and are made irrespective of whether the utility calls on the IPP to generate and deliver power. When the utility requires generation, a further energy charge, to cover the variable costs of the IPP, will also typically be paid by the utility. Some other similar arrangements are characterized as tolling agreements, or long-term supply contracts, but most have similar features to PPAs and are thus we analyze them as PPAs.

PPAs are recognized qualitatively to be a future use of cash whether or not they are treated as debt-like obligations in financial ratios

The starting point of our analysis is the issuer's audited financial statements – we consider whether the utility's accountants determine that the PPA should be treated as a debt equivalent, a capitalized lease, an operating lease, or in some other manner. PPAs have a wide variety of operational and financial terms, and it is our understanding that accountants are required to have a very granular view into the particular contractual arrangements in order to account for these PPAs in compliance with applicable accounting rules and standards. However, accounting treatment for PPAs may not be entirely consistent across US GAAP, IFRS or other accounting frameworks. In addition, we may consider that factors not incorporated into the accounting treatment may be relevant (which may include the scale of PPA payments, their regulatory treatment including cost recovery mechanisms, or other factors that create financial or operational risk for the utility that is greater, in our estimation, than the benefits received). When the accounting treatment of a PPA is a debt or lease equivalent (such that it is reported on the balance sheet, or disclosed as an operating lease and thus included in our adjusted debt calculation), we generally do not make adjustments to remove the PPA from the balance sheet.

However, in relevant circumstances we consider making adjustments that impute a debt equivalent to PPAs that are off-balance sheet for accounting purposes.

Regardless of whether we consider that a PPA warrants or does not warrant treatment as a debt obligation, we assess the totality of the impact of the PPA on the issuer's probability of default. Costs of a PPA that cannot be recovered in retail rates creates material risk, especially if they also cannot be recovered through market sales of power.

Additional considerations for PPAs

PPAs have a wide variety of financial and regulatory characteristics, and each particular circumstance may be treated differently by Moody's. Factors which determine where on the continuum we treat a particular PPA include the following:

- » Risk management: An overarching principle is that PPAs have normally been used by utilities as a risk management tool and we recognize that this is the fundamental reason for their existence. Thus, we will not automatically penalize utilities for entering into contracts for the purpose of reducing risk associated with power price and availability. Rather, we will look at the aggregate commercial position, evaluating the risk to a utility's purchase and supply obligations. In addition, PPAs are similar to other long-term supply contracts used by other industries and their treatment should not therefore be fundamentally different from that of other contracts of a similar nature.
- » Pass-through capability: Some utilities have the ability to pass through the cost of purchasing power under PPAs to their customers. As a result, the utility takes no risk that the cost of power is greater than the retail price it will receive. Accordingly we regard these PPA obligations as operating costs with no long-term debt-like attributes. PPAs with no pass-through ability have a greater risk profile for utilities. In some markets, the ability to pass through costs of a PPA is enshrined in the regulatory framework, and in others can be dictated by market dynamics. As a market becomes more competitive or if regulatory support for cost recovery deteriorates, the ability to pass through costs may decrease and, as circumstances change, our treatment of PPA obligations will alter accordingly.
- » Price considerations: The price of power paid by a utility under a PPA can be substantially above or below the market price of electricity. A below-market price will motivate the utility to purchase power from the IPP in excess of its retail requirements, and to sell excess electricity in the spot market. This can be a significant source of cash flow for some utilities. On the other hand, utilities that are compelled to pay capacity payments to IPPs when they have no demand for the power or at an above-market price may suffer a financial burden if they do not get full recovery in retail rates. We will focus particularly on PPAs that have mark-to-market losses, which typically indicates that they have a material impact on the utility's cash flow.
- » Excess Reserve Capacity: In some jurisdictions there is substantial reserve capacity and thus a significant probability that the electricity available to a utility under PPAs will not be required by the market. This increases the risk to the utility that capacity payments will need to be made when there is no demand for the power. We may determine that all of a utility's PPAs represent excess capacity, or that a portion of PPAs are needed for the utility's supply obligations plus a normal reserve margin, while the remaining portion represents excess capacity. In the latter case, we may impute debt to specific PPAs that are excess or take a proportional approach to all of the utility's PPAs.
- » Risk-sharing: Utilities that own power plants bear the associated operational, fuel procurement and other risks. These must be balanced against the financial and liquidity risk of contracting for the purchase of power under a PPA. We will examine on a case-by case basis the relative credit risk associated with PPAs in comparison to plant ownership.
- » Purchase requirements: Some PPAs are structured with either options or requirements to purchase the asset at the end of the PPA term. If the utility has an economically meaningful requirement to purchase, we would most likely consider it to be a debt obligation. In most such cases, the obligation would already receive on-balance sheet treatment under relevant accounting standards.
- » Default provisions: In most cases, the remedies for default under a PPA do not include acceleration of amounts due, and in many cases PPAs would not be considered as debt in a bankruptcy scenario and could potentially be cancelled. Thus, PPAs may not materially increase Loss Given Default for the utility.

In addition, PPAs are not typically considered debt for cross-default provisions under a utility's debt and liquidity arrangements. However, the existence of non-standard default provisions that are debt-like would have a large impact on our treatment of a PPA. In addition, payments due under PPAs are senior unsecured obligations, and any inability of the utility to make them materially increases default risk.

Each of these factors will be considered by our analysts and a decision will be made as to the importance of the PPA to the risk analysis of the utility.

Methods for estimating a liability amount for PPAs

According to the weighting and importance of the PPA to each utility and the level of disclosure, we may approximate a debt obligation equivalent for PPAs using one or more of the methods discussed below. In each case we look holistically at the PPA's credit impact on the utility, including the ability to pass through costs and curtail payments, the materiality of the PPA obligation to the overall business risk and cash flows of the utility, operational constraints that the PPA imposes, the maturity of the PPA obligation, the impact of purchased power on market-based power sales (if any) that the utility will engage in, and our view of future market conditions and volatility.

- » Operating Cost: If a utility enters into a PPA for the purpose of providing an assured supply and there is reasonable assurance that regulators will allow the costs to be recovered in regulated rates, we may view the PPA as being most akin to an operating cost. Provided that the accounting treatment for the PPA is, in this circumstance, off-balance sheet, we will most likely make no adjustment to bring the obligation onto the utility's balance sheet.
- » Annual Obligation x 6: In some situations, the PPA obligation may be estimated by multiplying the annual payments by a factor of six (in most cases). This method is sometimes used in the capitalization of operating leases. This method may be used as an approximation where the analyst determines that the obligation is significant but cannot otherwise be quantified otherwise due to limited information.
- » Net Present Value: Where the analyst has sufficient information, we may add the NPV of the stream of PPA payments to the debt obligations of the utility. The discount rate used will be our estimate of the cost of capital of the utility.
- » Debt Look-Through: In some circumstances, where the debt incurred by the IPP is directly related to the off-taking utility, there may be reason to allocate the entire debt (or a proportional part related to share of power dedicated to the utility) of the IPP to that of the utility.
- » Mark-to-Market: In situations in which we believe that the PPA prices exceed the market price and thus will create an ongoing liability for the utility, we may use a net mark-to-market method, in which the NPV of the utility's future out-of-the-money net payments will be added to its total debt obligations.
- » Consolidation: In some instances where the IPP is wholly dedicated to the utility, it may be appropriate to consolidate the debt and cash flows of the IPP with that of the utility. If the utility purchases only a portion of the power from the IPP, then that proportion of debt might be consolidated with the utility.

If we have determined to impute debt to a PPA for which the accounting treatment is not on-balance sheet, we will in some circumstances use more than one method to estimate the debt equivalent obligations imposed by the PPA, and compare results. If circumstances (including regulatory treatment or market conditions) change over time, the approach that is used may also vary.

Moody's Related Research

The credit ratings assigned in this sector are primarily determined by this credit rating methodology. Certain broad methodological considerations (described in one or more credit rating methodologies) may also be relevant to the determination of credit ratings of issuers and instruments in this sector. Potentially related sector and cross-sector credit rating methodologies can be found [here](#).

For data summarizing the historical robustness and predictive power of credit ratings assigned using this credit rating methodology, see [link](#).

Please refer to Moody's Rating Symbols & Definitions, which is available [here](#), for further information. Definitions of Moody's most common ratio terms can be found in "Moody's Basic Definitions for Credit Statistics, User's Guide", accessible via this [link](#).

» contacts continued from page 1

Analyst Contacts:**BUENOS AIRES +54.11.5129.2600**

Daniela Cuan +54.11.5129.2617
Vice President - Senior Analyst
daniela.cuan@moodys.com

TORONTO +1.416.214.1635

Gavin MacFarlane +1.416.214.3864
Vice President - Senior Credit Officer
gavin.macfarlane@moodys.com

LONDON +44.20.7772.5454

Douglas Segars +44.20.7772.1584
Managing Director - Infrastructure Finance
douglas.segars@moodys.com

Helen Francis +44.20.7772.5422
Vice President - Senior Credit Officer
helen.francis@moodys.com

HONG KONG +852.3551.3077

Vivian Tsang +852.375.815.38
Associate Managing Director
vivian.tsang@moodys.com

SINGAPORE +65.6398.8308

Ray Tay +65.6398.8306
Vice President - Senior Credit Officer
ray.tay@moodys.com

TOKYO +81.3.5408.4100

Mihoko Manabe +81.354.084.033
Associate Managing Director
mihoko.manabe@moodys.com

Mariko Semetko +81.354.084.209
Vice President - Senior Credit Officer
mariko.semetko@moodys.com

Report Number: 1072530

Author
Michael G. HaggartyProduction Associate
Masaki Shioml

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INDUSTRY REPORT
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Debra G. Coy 202-955-4315
dcoy@jmsonline.com
Heike M. Doerr 215-665-4448
hdoerr@jmsonline.com
Christopher J. Purtill 215-665-6601
cpurtill@jmsonline.com

Water Utility Sector

Regulation Cheat Sheet: Everything You Need to Know That Will Impact the Stocks in 2009

INVESTMENT CONCLUSION: Regulation can make or break a utility. As such, we believe it is imperative to follow the regulatory nuances at the state level across the water utility sector. In this report, we provide a comparison of regulatory treatment across the water-relevant state commissions, highlight the regulatory climate of some key states, and discuss the impact that recent elections and term endings could have at various commissions. Additionally, we highlight 2008 accomplishments that will impact companies in 2009, and detail pending regulatory matters to watch this year, including rate cases, trends in ROEs, and M&A activity.

Last week, we attended the annual NARUC (National Association of Regulatory Utility Commission) winter conference in Washington, D.C. and had an opportunity to speak with water utility executives and commissioners. Commissioners are working to understand the effect of financial market turmoil on utilities' ability to access the debt and equity markets and their capacity to maintain capex programs. Commissions and companies are focused on achieving a balance between attracting necessary capital to maintain needed infrastructure investment, while managing the impact on already stretched customers. So far, we are encouraged that rate cases are staying on track in most jurisdictions, and some states – not all – are increasingly receptive to the need for regulatory mechanisms to encourage investment in water systems. While the cost of debt remains higher than previously, at least credit markets have eased for high quality companies. We remain wary about the equity markets, however, and believe that companies that need to raise equity this year will face more skeptical investors and more pressure on valuation than in recent years.

VALUATION SUMMARY: In the current economic climate, not even the historically stable utility sector has been safe from market turmoil. Even the small water utilities, historically boring and predictable, have been prone to heightened volatility since September 2008. Excluding Southwest Water, which has sharply skewed the averages, the water utility group ended 2008 down an average of 15%, outperforming the S&P (down 38.5%) and the Dow Jones Utility Index (down 30%). Year to date, the group is down another 8%, while broader market averages have declined more so. Despite its relative outperformance, the water utility sector is no longer viewed as an entirely safe haven and has been subject to substantial valuation compression. Currently, the water utility group trades at average 2009 P/E multiples of 19.2x, a 2009 EV/EBITDA multiple of 9.3x, and price/book multiple of 1.8x. The group is currently below the low end of its five-year historical range. Nevertheless, we believe the sector remains attractive, given its recession-resistant business model, steady earnings growth over time, and dependable dividends, with the average yield now at 3.6%. We continue to see appealing opportunities to invest in the sector currently, and believe the long-term fundamentals remain intact. Our favorite names at current prices include American Water among the larger-cap stocks and Artesian Resources in the small-cap group.

TABLE OF CONTENTS

REGULATION REMAINS CORE TO UTILITY INVESTING	p.3
COMPARING REGULATORY TREATMENT	p.3
COMMISSION SCORECARD	p.5
EXPLANATION OF CATEGORIES	p.6
HIGHLIGHTING SOME STATE REGULATORY ENVIRONMENTS	p.7
MONITORING CHANGES AT THE STATE COMMISSIONS	p.8
COMMISSION CHANGES TO WATCH	p.9
RECENT REGULATORY DEVELOPMENTS	p.10
CASES TO WATCH	p.11
2008 RATE CASE HIGHLIGHTS	p.12
RATE CASE TRACKER	p.15

Water Utility Stock Valuation Comparison

Name	Symbol	JMS Rating	Fair Value	Recent Price	EPS		P/E		Div. Yield	Price/Book	2009 EV/EBITDA	ROE (LTM)
					2008E	2009E	2008E	2009E				
American States*	AWR	BUY	\$38	\$34.00	\$1.45	\$1.75	23.5x	19.5x	2.9%	1.9x	8.4x	8.3%
American Water**	AWK	BUY	\$26	\$20.21	\$1.16	\$1.39	17.4x	14.5x	4.0%	1.0x	8.4x	N/A
Aqua America	WTR	NEUTRAL	\$19	\$18.94	\$0.74	\$0.82	25.7x	23.0x	2.9%	2.5x	10.3x	8.9%
Artesian Water	ARTNA	BUY	\$19	\$14.86	\$0.82	\$1.00	18.1x	14.9x	4.8%	1.3x	8.0x	7.1%
California Water	CWT	NEUTRAL	\$43	\$40.52	\$1.92	\$1.97	21.2x	20.5x	2.9%	2.1x	8.8x	8.4%
Connecticut Water	CTWS	NEUTRAL	\$25	\$21.69	\$1.10	\$1.20	19.7x	18.1x	4.1%	1.8x	10.0x	8.7%
Middlesex Water	MSEX	BUY	\$18	\$14.37	\$0.94	\$0.92	15.4x	15.6x	4.9%	1.4x	9.3x	9.8%
Pennichuck	PNNW	NEUTRAL	\$20	\$18.87	\$0.72	\$1.01	26.1x	18.6x	3.7%	1.7x	10.0x	N/A
SJW Corp	SJW	NR	N/A	\$25.08	\$1.17	\$1.26	21.4x	19.9x	2.6%	1.9x	N/A	N/A
Southwest Water	SWWC	BUY	\$8	\$5.24	Suspended		N/A	N/A	1.9%	0.8x	8.0x	2.9%
York Water	YORW	BUY	\$13	\$11.39	\$0.55	\$0.62	20.6x	18.5x	4.4%	1.9x	9.9x	9.0%
Average							20.9x	18.3x	3.6%	1.7x	9.1x	7.9%
Source: Thomson Financial/Baseline; JMS estimates on rated cos.												
* Estimates for AWR exclude hedging contract & unusual items												
** For AWK, EPS data/estimates and valuation metrics exclude goodwill impairments, SOX, & divestiture costs												

REGULATION REMAINS CORE TO UTILITY INVESTING:

Investors often ask about the most important factor for comparing and valuing regulated water utilities. Unequivocally, the answer is **REGULATION**. We believe a fair and consistent regulatory environment is one of most important factors in valuing the earnings capabilities of water utilities. We view ratemaking as the most important interaction that a utility has with the Commission, and the main driver of its ability to generate sustainable earnings. *Commissions that work with the company to minimize rate shock to customers while stimulating infrastructure investments in their jurisdictions are viewed most favorably by the investment community.*

The “Regulatory Compact” that exists under the utility monopoly framework tasks utilities with providing reliable service at a reasonable cost to customer, in exchange for a **reasonable return on investment**. The Commission’s responsibility is not to ensure that customer rates are kept low, but that rates are fair to both investors and customers. The Department of Ratepayer Advocate (DRA) or Consumer Advocate represents consumers and intervenes on behalf of customers in rate increases. Overall, commissions have to walk a tightrope between the needs of diverse constituent bases.

In the current economic climate, we have been frequently asked whether utilities will be able to achieve rate increases as needed, leading to concerns about whether Public Utility Commissions (PUCs) may scale back allowed returns on equity to mitigate the impact of rate increases to customers. *To date, we have not seen any indication that water utilities are being penalized by low return on equity allowances as a method to minimize rate increases to consumers.* Although this recently occurred with a Connecticut electric utility, we believe the risk is smaller for the water utilities, as their cost of service (and subsequent rate increases) are lower than their electric and gas peers. In fact, we have seen an expansion in return on equity granted in a handful of states, as Commissioners recognize the importance of encouraging infrastructure spending in an uncertain capital markets environment.

COMPARING REGULATORY TREATMENT:

Each commission creates and implements its own policies on a broad range of topics including allowed rates of return, capital structure, and accounting methods. For utilities operating in multiple states, this translates into complying with multiple operating and accounting standards. *When we evaluate the regulatory climate of a state, we focus on three key items: consistency of regulatory treatment, allowed ROE, and efforts to minimize the effects of regulatory lag.* There is no formulaic equation to gauge a fair regulatory environment, and Commissions have utilized a variety of methods to strike the right balance of supporting infrastructure while balancing the needs of consumers. In some states, allowed returns may be somewhat lower, but we deem the regulatory climate constructive, if regulatory matters are resolved in a timely fashion and mechanisms to minimize regulatory lag are in place. We believe companies with good operating discipline and solid customer service records should be provided a certain degree of regulatory consistency. While states tend to apply similar policies to companies under their jurisdiction, we may also see differing treatment from one operator to another depending on company-specific circumstances.

Importance of ROEs. As we have said before, we believe that the single most important feature in a rate case is the allowed return on equity, since it sets the framework for what investors can expect to earn on their equity investment in a utility. Allowed ROEs range from 8.5% - 12%, with the national average for the water utility sector currently at about 10.25%. We view 10.0% as floor, and take a negative view on allowed returns below that level, as we believe it is more difficult for utilities earning sub-par returns to attract investment and generate earnings growth. Conversely, we believe ROEs of 10.5% or higher provide a more attractive incentive for utilities to allocate capital expenditure dollars, and for investors to provide equity capital. Equally important is a company’s ability to earn its allowed ROE. Timely rate relief to cover allowed costs and surcharge mechanisms that allow utilities to “catch up” between

Earned ROE, trailing twelve-months

American States Water (AWR)	8.27%
American Water Works (AWK)	**
Aqua America (WTR)	9.75
Artesian Water (ARTNA)	7.18
California Water Service (CWT)	10.32
Middlesex Water (MSEX)	8.85
Pennichuck (PNNW)	9.92
San Jose Water (SJW)	8.69
Southwest Water (SWWC)	**
York Water (YORW)	9.06

** Negative ROE based on reported earnings losses
Source: Bloomberg

regular rate cases are critical factors in helping a utility to earn its allowed return. As shown in the above table, California Water is the only water utility to have achieved an earned ROE above 10% in the most recently reported trailing twelve months period (through Sept. 30, 2008), as it has begun to benefit from regulatory reform mechanisms in California. We think it is no accident that Cal Water has also been the best-performing stock in the group over the past twelve months.

When utilities discuss *regulatory lag*, it is most commonly in reference to the delay between the time when higher operating costs are first experienced by the utility and when these costs are finally passed on to customers. Working together, commissions and utilities have created methods to pass on cost increases without going through the long and arduous process of a full rate case. For the utilities, these rate mechanisms and surcharges minimize regulatory lag and help stabilize earnings. From the commission's standpoint, they prevent sticker-shock with the negative publicity and customer complaints surrounding large rate increases, and decrease the amount of regulatory cases they have on their plate. As some of these state-specific mechanisms have proved successful, neighboring states have also begun to adopt them, as best-practices filter through the multiple regulatory jurisdictions.

Surcharge mechanisms allow water utilities to add an infrastructure rehabilitation surcharge to customers' rates for capital expenditure improvements made to the distribution system (normally pipe replacement). It adjusts periodically based on additional qualified capital expenditures completed or anticipated in a future period and is capped at a percentage of base rates. The amount is reset to zero when a new rate structure takes effect (after the completion of a regular rate proceeding). Companies that are currently earning their full allowed return on equity are not eligible to book surcharges between rate cases. The most successful example of these is known as a DSIC (Distribution System Improvement Charge), established in Pennsylvania in 1997. In addition to the infrastructure surcharge mechanisms we highlight in our "Scorecard", some states such as New Jersey and Virginia also allow purchased water surcharges, which allow utilities to pass on higher purchased water costs without going through a full rate case.

On the following pages, we provide an investor guide for assessing the regulatory environments of 20 of the most water-relevant state commissions. This is not an exhaustive list of states that regulate investor-owned water utilities. Multi-state companies including American Water, Aqua America, California Water, and SouthWest Water have regulated customers in additional states; however, the customer base is small relative to the remainder of the company's service territory. Smaller operating territories excluded for our evaluation include Alabama, Georgia, Hawaii, Iowa, Maine, Maryland, Mississippi, South Carolina, and Washington.

We had given some thought to a state ranking system (which some electric utility analysts have used), but believe there are too many variables to accurately do so. Although we have used a variety of data points to assess the regulatory climate, this is hardly an all-inclusive list of factors to consider when gauging regulatory temperament. Also relevant are how quickly rate cases can be completed. Rate cases are typically completed within a year. In cases where utilities have a good working relationship with the commission staff (also important), settlements can be reached in six to nine months). A state's general political environment can also make a difference in whether an equitable rate decision can be reached. Lastly, commissioner involvement in industry organizations (such as the NARUC Committee on Water) may also have a positive impact on regulatory treatment, as best practices are shared and industry topics are discussed.

Commission Scorecard								
	State	Appointed/ Elected	Test Year Used	Temporary, Interim, &/or Step Rate Increases	Retroactive Effective Dates	Infrastructure Surcharge Mechanism (ie. DSIC)	Single Tariff Rate Making	Recent Allowed ROE granted
New England/ MidAtlantic	NH	Appointed	historical	Yes	Yes	No	Yes	9.75% (PNNW; 2/08)
	CT	Appointed	historical	Yes	No	WICA	Yes	10.1% (United Water; 3/08), 10.0% (Aquarion; 12/07), 10.125% (CTWS; 1/07)
	NY	Appointed	historical	No	No	DSIC	Yes	9.5% (AWK; 4/08)
	NJ	Appointed	<i>updated historical</i>	No	No	Pending	Yes	10.3% (AWK ; 12/08), 10.3% (MSEX; 12/08)
	PA	Appointed	forward looking	No	No	DSIC	Yes	11.0% (WTR; 7/08), * (YORW; 10/08)
	DE	Appointed	updated historical	Yes	No	DSIC	Yes	10.33% (MSEX; 2/07) 10.25% (ARTNA; 4/06)
MidWest	IL	Appointed	historical	No	No	QIPS	Yes	10.35% (AWK; 8/08)
	IN	Appointed	historical	No	No	Yes	Yes	* (WTR; 10/08), 10.0% (AWK; 10/07)
	OH	Appointed	updated historical	No	No	SIC	Yes	10.9% (WTR; 11/08), 10.5% (AWK; 5/08)
	MO	Appointed	updated historical	No	No	Yes	No	* AWK (11/08) -- approximate 10.2%-10.5%
Southeast	NC	Appointed	historical	No	No	No	No	10.45% (WTR; 2/09) <i>Settlement -not finalized</i>
	KY	Appointed	forward looking	No		No	Yes	10.0% (AWK; 12/07)
	VA	Appointed	forward looking	No		No		10.5% (AWK; 7/08)
	WV	Appointed	updated historical	No		No	Yes	10.0% (AWK; 3/08)
	FL	Appointed	historical	Yes	No	No	No	10.4% (WTR; 2/09) <i>Settlement -not finalized</i>
West/ Southwest	AZ	Elected	updated historical	No	No	No	No	10.6% (AWK; 6/08) 8.8% (AWK; 8/08)
	CA	Appointed	forward looking	Yes	Yes	No	<i>Underway</i>	* 10.2% proposed in cost of capital proceeding
	HI	Appointed	updated historical	No	No	No	No	N/A
	NM	Elected	updated historical	No	Yes	No	Yes	9.72% (AWK; 6/07)
	TX	Appointed	historical	Yes	Yes	Yes	Yes	10.2% (AWK; 10/06); 12.0% (AWK; 10/06)

Explanation of Categories

Appointed/Elected

The majority of states have commissioners appointed by the governor, though some states have other appointment mechanisms. A minority of states have elected commissioners, who may be more subject to direct political pressures.

Test Year

The test year is a twelve-month time period used in ratemaking proceeds to determine what assets qualify as rate base and which operating expenses the company may recoup. "Forward looking" allows a company to make assumptions about future capital expenditure plans and anticipated operating cost increases and is most favorable. "Updated historicals" assumes a historical base year, but takes into account known operating expense increases. "Historical" is still most common and carries the most regulatory lag risk. Depending on timing of filings, the historical test year may not have taken into account the most recent capital investments. With historical test years, it is often difficult for companies to earn their allowed ROE, as they are always playing catch-up, even when new rate increases are being implemented.

Temporary Rate Relief

One method of minimizing regulatory lag has been to allow companies to implement a portion of their requested rate relief before a rate case has been finalized. In some cases, water utilities can implement a portion of their rate request within 60 days after submitting the rate increase. In other cases, water utilities are offered a modest increase when a rate case takes longer than initially anticipated.

Interim Rates

This allows utilities to add a CPI-like increase to rates while a final decision is pending.

Step Rate Increases

Step increases allow companies to implement smaller-rate increases in between full rate filings to account for infrastructure added.

Retroactive Effective Dates

This allows utilities to collect rates retroactively to account for a recent decision. In most instances, this is utilized if a rate case is delayed beyond the anticipated effective date, and the utility is deemed not at fault.

Single Tariff Rate Making

Allows a state to file one rate case for all of its customers in a jurisdiction, instead of filing individual cases for each system. Single tariffs are more efficient for the company.

Recent Allowed ROEs

We have also included a few recent allowed ROEs from some of the larger privately-held water utilities, namely United Water (owned by Suez), and Aquarion, as well as ROEs awarded to the publicly traded companies we follow.

HIGHLIGHTING SOME STATE REGULATORY ENVIRONMENTS:

Pennsylvania continues to deserve its status as the most constructive regulatory environment in the water sector. In 2008, the Commission raised the allowed return on equity to 11% from 10.5% for both Aqua Pennsylvania and York Water. The Commission also expanded its DSIC (Distribution System Improvement Charge) mechanism, which the PA PUC is credited with creating, allowing interim surcharges of up to 7.5% of customer bills for American Water, versus 5% previously. We would expect other Pennsylvania water utilities to file for increased DSIC mechanisms with their next rate cases. Both of these efforts reinforce the Commission's commitment to encouraging capital investment in the state. This position is strongly backed by Governor Ed Rendell, who has been a vocal supporter for infrastructure investment in Pennsylvania and nationally.

Investor Owned Water Utilities in Pennsylvania

Company	# customers	% Regulated customer base in PA
American Water	644,720	19%
Aqua America	352,000	44%
United Water	55,000	3%
York Water	58,890	100%
	1,110,610	

While Pennsylvania has long been considered a leader in constructive rate-making, **California** has managed some notable improvement in recent years, after having been one of the most trying regulatory environments as recently as 2003. California was a combative place, to say the least, back in 2000, when the state's failed attempt at electric deregulation erupted in blackouts and bankruptcy for the state's largest electric company. Though it wasn't directly involved in the electricity crisis, water companies were also harmed by the negative environment, and rate cases averaged 24 months for completion.

In December 2005, California became the first state to issue a long-term sector strategy in its Water Action Plan. Under the plan, the state commission has been working to streamline rate cases and improve companies' ability to earn their allowed returns. In the second half of the year, the Commission completed "conservation proceedings" for Golden State Water (American States' California subsidiary) and Cal Water. This new mechanism should have the effect of smoothing out volatility caused by weather, conservation, and water production costs. The water revenue adjustment mechanism (WRAM) will allow revenues to be "decoupled" from water use. Under this mechanism, rates are set to allow recovery of costs at authorized returns, even if volume usage fluctuates, which removes the economic disincentive for utilities to encourage conservation. The modified cost balancing account will allow the company to recover costs associated with changes in supply mix. The newly created tiered rate structure, which charges residential customers more as their usage increases, will also be an incentive for customers to conserve water.

Still pending is a final decision in a cost of capital proceeding. We believe that the state may lose some of its allure for investors, however, if a recent proposed administrative law judge decision stands. The proposed cost of capital decision, which impacts Cal Water, American States, and California America (the state's three largest investor-owned water utilities), set the allowed return on equity at 10.2%, approximately in line with the current level. A final decision by the commission is pending.

Investor Owned Water Utilities in California

Regulated Utility	Parent	# customers	% Regulated customer base in CA
Golden State Water Co.	American States Water Co.	254,546	95%
California American	American Water Works Co.	171,445	5%
California Water Co.	California Water Services Group	463,600	95%
San Jose Water Co.	SJW Corp.	225,000	97%
Suburban Water Systems	SouthWest Water Co.	75,322	46%
		1,189,913	

Another improving regulatory environment has been in *New Jersey*, which has historically granted allowed ROEs at the low end of the national average. The Commission recently awarded allowed ROEs of 10.3% (a 30 basis point improvement) for both Middlesex's small Pineland's subsidiary and for New Jersey American. Additionally, the Commission is close to approving a regulatory mechanism that will allow water utilities to add infrastructure rehabilitation surcharges to customers' rates for capital improvements made to the distribution system in between rate cases. This mechanism, loosely known throughout the industry as a DSIC (distribution system improvement charge) has been in place in Pennsylvania, Delaware, and New York for some time now.

Most recently, Governor Jon Corzine reached out to the state's utilities in October, asking them to accelerate infrastructure upgrades to boost the state's economic activity and support future economic growth. While most of the state's gas and electric utilities have announced increased capex plans in response, it is unclear if the state's water utilities will follow suit.

Investor Owned Water Utilities in New Jersey		
Company	# customers	% Regulated customer base in NJ
American Water	634,957	19%
Aqua America	40,000	5%
Middlesex Water	93,000	71%
United Water	250,000	13%
	1,017,957	

MONITORING CHANGES AT THE STATE COMMISSIONS:

In the majority of states, public utility commissioners are appointed by the governor upon the approval from the State Senate. This allows the commission to make decisions, such as increasing rates, with a shelter from the political backlash that can come from this. In most cases, commissions are comprised of 4-5 members who are appointed by the Governor and confirmed by the state legislature. Terms are typically staggered so that a single commissioner is replaced at a time, allowing for some consistency at the PUC.

In a handful of states, commissioners are elected officials. Arizona and New Mexico are the most relevant for water utilities, but commissioners are also elected in Nebraska, Georgia, South Dakota, Montana, and Oklahoma. This can create a more difficult regulatory environment if commissioners are politically motivated by reelection and align their decisions more closely with rate payers. In the November election, there were 16 commission seats up for grabs and 5 of 7 incumbents were able to retain their spot. Elected commissions do not always translate into regulatory difficulties. In New Mexico, for example, Commissioner David King has been a strong supporter of the water industry.

We monitor changes at the gubernatorial level and changes to commissions, as they can meaningfully impact the regulatory climate in a given jurisdiction. A good example of this is occurred in *Florida* when the commission took a distinct pro-consumer shift with the appointment of two new commissioners, putting more pressure on utilities in the state. Aqua was in the middle of a rate proceeding at the time and the commission appointments were one of a variety of factors that made for a difficult case, which was ultimately retracted and refiled a year later. In *Illinois* it is unclear how the recent removal of Governor Blagojevich (D) will impact future appointments. All five of the commissioners currently serving have been appointed or reappointed by Blagojevich. The term of Commissioner Charles Box, who serves as Chair of the Illinois Commerce Commission (ICC), expired in January 2009. By law, he may continue to serve for an indefinite period following the expiration of his term, pending reappointment or replacement.

Arizona has been one of the most difficult operating climates across the utility sector. The state's method of electing multiple commissioners at once is particularly disruptive to timely and consistent rate making. Three of five commissioners were elected in November 2008 and took office less than a month ago, and it is still too early to tell how regulation may or may not change in the state. None have any prior commissioner experience, but all have extensive public service backgrounds including having served in the State House of Representatives at some point in their careers. Only Commissioner Bob Stump has any discernible background related to water issues, as a member

of the House Water and Agriculture Committee, which promoted sound water management policies for the state. We have been favorably impressed by the new chairman of the commission, Commissioner Kristin Mayes, who has been serving since 2003.

Both American Water and American States Water have utilities based in Arizona, although neither are a large percentage of the companies' customer base. Arizona American received some inconsistent allowed returns on equity in 2008 (10.8% granted in May 2008 and 8.8% in July); however, it appeared that the latter decision was punitive in nature, as the company had some well contamination scares during that time. The company currently has multiple rate requests outstanding in the state, totaling approximately \$20 million. American States' subsidiary, Chaparral City Water Company (CCWC), has a rate case dating from 2004 that has been mired in legal woes. State law prohibits the Commission from proceeding on its 2007 filed rate case until the previous case has been resolved.

In **New Mexico**, where utility commissioners are also elected, Commissioner Jason Marks, who is known as a "Consumer Watchdog," was able to hold his seat. The other opening was won by Jerome Block, whose father and grandfather had both previously been commissioners. He was able to beat out five other candidates despite allegations regarding violation of campaign fund rules and misstated credentials. With SouthWest Water's condemnation proceeding expected to close in the next few months, Cal Water is the only publicly-traded water utilities with a presence in the state. The company's New Mexico Water serves less than 8,000 customers and represents only 1% of the company's customer base.

The following chart highlights term expirations that have recently occurred or that we expect in the coming months at water-relevant commissions. We do not currently anticipate a meaningful policy change as a result of these appointments.

Commission Changes to Watch

California

Both President Michael Peevey (D) and Commissioner Rachelle Chong (R) were recently reappointed to new terms extending to Jan. 1, 2015; but are subject to Senate confirmation. We view this as a positive development

Florida

Commissioner Lisa Edgar's (I) term expired in January 2009; she has been reappointed by Gov. Charlie Crist (R), but is awaiting Senate confirmation

New York

Commissioners Gary Brown (D) and Patricia Acampora (R) both had terms expire in February; however no action has been taken regarding their reappointment or replacement. In January, James Larocca was confirmed to fill the seat vacated by Commissioner Buley. Mr. Larocca has experience in the utility sector, having previously served as the chairman and trustee of the Long Island Power Authority and as a former director of Keyspan Energy (a New York gas utility that has since been acquired). We view this appointment as a positive development.

New Jersey

President Jeanne Fox (D) has been serving beyond the end of a term that expired in March 2008; she has been reappointed by Gov. Jon Corzine (D), but the Senate has not acted on the nomination.

Pennsylvania

Commissioner Robert Powelson's term expires on April 1st. He was nominated in June 2008, to serve the remaining term of Terrance Fitzpatrick, who resigned. While Governor Rendell has not formally done so, we would expect the Commissioner to be reappointed, which we view positively.

Ohio

Chairman Alan Schriber's term expires in April. The Commission Nominating Council submitted four names to Gov. Ted Strickland on February 5th, to be considered for appointment including Commissioner Schriber. The governor has 30 days to either select a nominee or request a new list of names from the Nominating Council.

Connecticut

The Governor recently made two appointments that are pending state senate approval. Commissioner DeGobbo joins the commission from the state House of Representatives. He was instrumental in passing the state's Water Infrastructure Conservation Adjustment (WICA) mechanism and has a background dealing with energy planning matters. Commissioner Bzdyra most recently served as Deputy Commissioner of the Department of Social Services and has experience in all three legislative branches.

Indiana

The term of Commissioner Server (R) expires in April 2009. Governor Daniels (R), who was recently reelected, will decide whether to reappoint Commissioner Server, or appoint a new commissioner

Source: SNL, and state commission websites

RECENT REGULATORY DEVELOPMENTS:

SJW Corp. Files for Rate Relief in California

In late January, the company's largest utility subsidiary, San Jose Water filed for a \$36.2 million (18.4%) rate increase to take effect January 1, 2010. Additionally, the company filed for step increases of \$15.2 million (6.52%) and \$19.9 million (8.1%) for the two subsequent years. The rate case assumes a 2007 test year and includes \$21 million of increased infrastructure the company has added to its system since its last filed rate increase.

San Jose will file its cost of capital proceeding in May, in conjunction with Suburban Water (SouthWest's California subsidiary) and 5 smaller privately-held water utilities. The intention is for the cost of capital adjustment to take effect in conjunction with the rate increase in early 2010. The utility's current allowed return on equity is between 10.1% - 10.2%.

Middlesex Files for Rate Relief in Delaware

Middlesex Water filed for increased rates at its Delaware subsidiary, Tidewater Utilities, in late January. The company requested a \$5.4 million (27.25%) increase. Additionally, the company has petitioned to reallocate about \$1 million that it is already collecting through its DSIC mechanism into base rates. The rate increase is associated with the \$26.7 million the company has invested in its system since the last rate filing in April 2006. The rate increase assumed an allowed ROE of 12%, the company's current allowed ROE is between 10.0% - 10.3%. In Delaware, water utilities can implement a temporary rate increase (the lesser of 5% or \$2.5 million) 60 days after the request has been filed, and we expect Tidewater to do so this spring.

California American Files for Rate Increase in Three Districts

In late January, American Water Work's California subsidiary filed for rate increases in three districts in the state: \$17.5 million (51.29%) in 2010 and \$5.3 million (10.25%) in 2011 at its Sacramento District; \$7.9 million (41.29%) in 2010; and \$1.1 million (4.09%) in 2011 its Los Angeles District; and \$0.65 million (23.38%) and \$0.14 million (4.07%) in 2011 in its Larkfield District.

Aqua America Settlement Agreement in North Carolina

Aqua recently reached a settlement with the staff regarding the company's \$12.3 million rate increase that was filed in North Carolina in July 2008. The settlement includes a \$7.7 million rate increase and keeps the company's allowed ROE at 10.45%. The company anticipates an April effective date.

SouthWest Water Condemnation Settlement in New Mexico

On January 28, SouthWest Water and the Albuquerque Bernalillo County Water Utility Authority (ABCWUA) reached a settlement regarding the condemnation of the company's New Mexico Utilities, Inc. and various legal disputes. New Mexico Utilities, Inc. has approximately 17,300 water and 16,600 wastewater connections, which represents roughly 20% of the company's regulated utility base. SouthWest agreed to transfer ownership to the Water Authority for \$60 million. The water authority appraised the system at \$37 million, while NMUI appraised itself at \$98 million. Recent settlement discussions stemmed from court mandated mediation efforts. The settlement also terminates multiple lawsuits between the two parties regarding rates charged and effluent return flow credits. SouthWest has agreed to pay \$7 million to resolve disputed sewer fees. The water authority has been trying to take over the system via condemnation since January 2007, while the legal disputes date back to 2004. We believe the settlement outcome is preferable to a allowing the litigation to drag on, providing a cash infusion for the parent company and reducing the drain on management resources. While it represents the loss of an asset, we view this resolution as a positive development, as the company can redeploy the capital into its existing asset base, at a time when its access to other sources of capital has been temporarily constrained due to its accounting restatements. The transaction is expected to close within 120 days.

CASES TO WATCH:

California Cost of Capital Proceeding

As part of the Water Action Plan, the PUC decided to remove the cost of capital portion of rate cases from the general rate case (GRC). In February 2008, California Water, Golden States (American States Water) and Cal American (American Water) filed concurrent Cost of Capital requests with the California PUC. Each company submitted their own requested ROE and equity ratio and will receive a company-specific determination. In the interest of expediting the process, however, the PUC consolidated these filings into a single rate matter. This method has been used with the state's electric utilities since the late 1980s, but the current proceeding is the first time the process is being utilized for the water utilities.

On December 19, the administrative law judge (ALJ) presiding over the case issued his proposed decision. We were disappointed to see each company receive an allowed ROE of 10.2%, below the 10.5-11.0% we were hoping for. This is inline with California Water's existing ROE and only a modest increase for Golden States and California American. Electric utilities in the state currently have allowed ROEs ranging from 11.1% to 11.5%. As a positive development, the judge did propose a balancing account to allow for faster recovery of higher interest rates during this period of financial market uncertainty. *A final decision on the case is expected this spring.*

Aqua America's Florida Rate Case

In May 2008, Aqua America refiled its rate request in Florida. As a reminder, the company "voluntarily dismissed" its \$7.3 million rate case in August 2007, due to customer opposition and a lack of support from the Public Service Commission. The complexity of the case (80 separate rate filings in 15 counties) paired with a poor operating history prior to Aqua's ownership and a political shift within the commission contributed to the failure of the request. Florida has been one of the more challenging operating environments for Aqua America. The historic poor performance of the acquired systems has been an issue since the commission took a distinct pro-consumer shift, with the addition of two new Commissioners in early 2008, putting more pressure on utility businesses in the state.

The company is currently earnings less than a 5% ROE in the state. The staff decision was recently filed, which included an allowed ROE of 10.4%. *We expect this case to be finalized in early April.*

American Water's Trenton Acquisition

According to local news articles, the sale of the suburban portion of Trenton's water utility has been approved by all four towns impacted and the Trenton City Council. The acquisition includes approximately 40,000 customers and 460 miles of water mains in Ewing, Hamilton, Lawrence, and Hopewell townships, which would increase American Water's customer base in New Jersey by 5%. American Water will be able to add \$75 million of the \$80 million purchase price into rate base. The additional \$5 million purchase price is related to Trenton Water Works engineering and consulting costs. As part of the arrangement, Trenton Water Works will become a wholesale water supplier for the systems under a 20-year contract. In the interest of making the arrangement more attractive for the city, American Water is also likely to take on the full cost of physically separating the system, which is expected to cost \$9-13 million and should take about three years. *The transaction is supposedly on the Board of Public Utilities (BPU) agenda for February 24th and the transaction is expected to close in late April or early May.*

American States (Golden State) Rate Case

As part of the Water Action Plan, the California Commission is consolidating rate cases for the largest water utilities so that companies like Golden State will eventually file one case every three years, rather than one case each year in its three regions, on a rolling three-year cycle. When fully implemented, this new cycle should reduce filing costs and reduce regulatory lag.

In its first step, Golden State filed a combined case for Region 2 and Region 3, as well as headquarters costs, in July 2008. The company requested approximately \$50 million for 2010, \$4.3 million for 2011, and \$7.9 million in 2012. The allowed ROE is being decided in the pending cost of capital proceeding, and the company will use its existing ROE until a final decision has been made. The company recently withdrew its request to establish a DSIC surcharge mechanism because it did not believe it would be approved. *A final decision is not expected until January 2010.*

This is a sampling of key rate cases, not a comprehensive list of rate cases pending across the water sector. For a status update on pending rate cases, please refer to our Rate Case Tracker, which can be found on page 15.

2008 RATE CASE HIGHLIGHTS:

In the previous sections, we highlighted pending rate cases and recent regulatory developments across the sector. In this section, we highlight rate matters completed across the water utility group in 2008 that will contribute to future earnings. It is encouraging to see that more state Public Utility Commissions are increasingly recognizing the risks involved with water infrastructure investment in a volatile equity market environment and are awarding utilities commensurate ROE levels for this assumed risk.

AMERICAN WATER WORKS

Since the company announced its spinout from German owner RWE, American Water Works has been busy filing for rate relief across multiple jurisdictions. By our calculations, the company has been awarded rate relief of \$200 million in 2008, as outlined below, on the heels of almost \$160 million of rate rewards in 2007.

The largest rate reward the company received was in New Jersey, where approximately 20% of the company's customer base resides. In December, the company received a \$72.1 million rate increase with an allowed ROE of 10.3%. The company had initially requested an increase of \$100 million (excluding an additional \$25 million for the proposed Trenton acquisition, which is still pending) and an allowed ROE of 11.5%. Another meaningful case completed in the fourth quarter was an approximately \$34.5 million rate award in Missouri, with an estimated ROE of about 10.5%. In 2008, infrastructure surcharges enacted in Pennsylvania, Indiana, Missouri, and Illinois, contributing an additional \$12.3 million in annualized increases.

Annualized Rate Increases Granted

<i>(in millions)</i>	During the years				
State	2004	2005	2006	2007	2008
New Jersey	\$29.7	\$0.0	\$0.0	\$56.2	\$72.0
Pennsylvania	\$28.6	\$5.8	\$8.0	\$40.6	\$1.9
Missouri	(\$0.4)	\$0.0	\$6.8	\$24.0	\$34.5
Illinois	\$0.0	\$0.0	\$0.9	\$1.7	\$21.6
Indiana	\$2.7	\$0.9	\$1.8	\$14.0	\$0.0
California	\$7.2	\$8.4	\$15.1	\$0.5	\$13.0
West Virginia	\$1.8	\$10.0	\$0.0	\$0.0	\$14.5
Other	\$9.5	\$9.9	\$8.7	\$21.9	\$42.5
Total	\$79.1	\$35.0	\$41.3	\$158.9	\$200.0
<i>Source: American Water & State PUC filings</i>					

AMERICAN STATES WATER

In early February 2008, the California Public Utilities Commission approved the company's Region I rate case, adding \$6.4 million in revenue with an authorized rate of return on equity of 10.2%. As mentioned previously, the California Public Utilities Commission approved adoption of regulatory adjustments that will mitigate the impact of reduced water usage and changes in supply mix for Golden State Water. These mechanisms took effect in late November, but won't be fully in place until 1Q09.

AQUA AMERICA

In late July, the Pennsylvania Public Utilities Commission (PUC) approved a \$34.4 million rate increase for Aqua, with an allowed ROE of 11%. The company had initially filed for a \$41.7 million rate increase and an allowed ROE of 11.75% late last year. Recent water rate cases in Pennsylvania have netted "black box" (i.e., undisclosed) ROE rates believed to be in the 10.5% range.

Also in July 2008, Aqua reached a settlement agreement with the New Jersey Board of Public Utilities (BPU) on its \$6.87 million rate request. The company was granted a \$4.1 million (16.4%) revenue increase with an allowed return on equity of 10%. Since then, allowed ROEs in the state have trended higher with Middlesex's small

Pinelands system and American Water's largest subsidiary, each receiving ROEs of 10.3%. About 5% of Aqua's customers and asset base are located in New Jersey.

Annualized Rate Increases Granted			
(in millions)	During the years		
State	2006*	2007*	2008
Pennsylvania	\$24.9	\$11.7	\$37.1
Illinois		\$0.3	\$3.7
Ohio		\$1.3	\$3.1
North Carolina			\$1.7
Texas			\$0.0
New Jersey			\$4.1
Indiana		\$0.1	\$5.5
Florida		\$0.0	\$1.9
Virginia		\$1.1	\$0.8
New York		\$0.5	\$0.0
Maine		\$0.1	\$0.5
Missouri			\$0.6
Total	\$42.0	\$17.7	\$58.8
* We were unable to track down every rate awards so the yearly total does not equal the state specific increases			
Source: Aqua America & State PUC filing			

CALIFORNIA WATER

In July, Cal Water received a \$45 million water and sewer rate increase which assumes the company's existing allowed ROE of 10.2%. The company initially filed for rate relief in the summer of 2007, requesting \$67.5 million in new rates in year one (beginning July 1, 2008), \$23 million of which is associated with general office expenses.

CONNECTICUT WATER

On March 28th, the company received a decision on its Phase 2 re-opener case. The allowed reopening of the rate decision reflects increases in rate base from recent capital investments – items such as allowed ROE and capital structure were not open to review. The decision allowed for an additional 4.8% revenue increase associated with \$15.5 million in capital improvements made in 2007. This second phase increase represents an additional \$2.9 million in annualized revenue effective April 1, 2008. Part of the settlement agreement includes a rate-stay out until January 2010.

Connecticut Water also filed its Infrastructure Assessment Report (IAR) with the Connecticut Public Utility Commission. This report defines the priority for future replacement projects and is the first step for the company applying for a Water Infrastructure and Conservation Adjustment (WICA). As we mentioned earlier, the WICA is a surcharge, applied to customer bills, to recoup distribution systems investments without filing a full rate case, similar to the DSIC (distribution system improvement charge) allowed in Pennsylvania and Delaware. We expect approval of the IAR in the first quarter of 2009, after which the company could file for its first WICA around July.

MIDDLESEX WATER

On December 19th, Middlesex announced that its small Pinelands Water Co. and Pinelands Wastewater Co. received a final decision on its April rate request. The company received a \$33,000 or 5.53%, increase in water rates and a \$170,000, or 18.3%, increase in wastewater rates. The Pinelands systems provide water and wastewater service to 2,400 customers and represent less than 1% of the company's customer base. While a modest revenue increase, we were encouraged by the allowed ROE in the case of 10.3%, an improvement over the 10.0-10.1% the New Jersey BPU has granted them previously.

PENNICHUCK:

On April 8th the New Hampshire PUC approved the settlement agreement on Pennichuck East Utility's (PEU) rate case, which increased the utility's revenue by 17% and replaced a 12% temporary rate increase that had been in effect since August 2008. The resolution stipulated an annualized increase of \$712,000 (17.19%) with an effective date of May 29, 2007. In essence, this added an additional \$211,000 (annualized) to existing rates.

YORK WATER

In October 2008, York settled its \$7.1 million rate case with the Pennsylvania PUC Commission, allowing an annual revenue increase of \$5.95 million with rates effective October, 9th. We believe the "black box" allowed return on equity was around 11.0%. This rate relief comes a quarter earlier than we expected and will contribute materially to fourth quarter and 2009 results.

JMS WATER UTILITY RATE CASE TRACKER

	State	File Date	Water/ Sewer	Region	% Increase	\$ Increase (M)	Req. ROE	Status Summary
American Water Works	NJ			Trenton Acquisition	NA	NA	NA	System ownership transfer has been approved by Trenton City Council as well as Ewing, Hamilton, Lawrence, and Hopewell townships. Acquisition is said to be on BPU's Agenda for February 24th and the transaction is expected to close in late April/early May.
	NJ			DSIC Mechanism	NA	NA	NA	Currently in hearing/discovery phase. Expect a decision in second quarter 2009.
	CA	1/30/08	Water & Sewer	Monterey & General Office	83.47%, 6.3%, 6.4%	\$44.4M	11.50%	On 12-8-08 Cal American filed for interim rate relief with an effective data of January 1st, since the company did not expect a final ruling by January 31, 2009. Commissioner Bohn denied the company's motion for temporary rates but encouraged the utility to file an advice letter to receive temporary rate relief. It does not appear that the company has filed an advice letter. Partial settlement has been reached with Division of Ratepayer Advocate (DRA) - motions and reply briefs continue to be filed
	CA	1/26/09	Water	Sacramento, Los Angeles, and Larfield Districts	51.29% & 10.25%; 41.29% & 4.09%; 23.38% & 4.07%	\$17.5M & \$5.3M; \$7.9M & \$1.1M; \$0.65M & \$0.14M	NA	Company filed for increased rates in late January. Stated rate increase data (by \$M & %) reflects 2010 & 2011 increases for each system.
	WV	5/30/08	Water	Statewide	12%	\$14.7M	11.75%	Hearings held in December. Reply briefs filed in January and February.
	OH	11/13/08	Water and Sewer	Statewide and Franklin sewer	16%	\$5.5M	11.25%	On 9/4/08 an agreement was reached with the Commission staff, the Ohio Consumers' Counsel (OCC), and other parties for a \$5.26 million (or approximately 15.8% increase). The agreement is subject to approval by the Commission.
	KY	10/31/08				\$18.5M	11.50%	Recently filed
	NM	6/30/08				\$2.2M	11.75%	Unknown
Aqua America	AZ	5/1/08	Water & Sewer	10 Districts	26.4%-169%	\$20M	11.75%	Currently in data request phase (consumer comments). Commission hearings to be held on March 19th. In the Sun City case, the RUCO (similar to DRA) proposed a 59% increase, compared to the company's 79% rate increase.
	FL	5/22/08	Water & Sewer	All except Sarasota	Consolidated 20.6% (W) & 59.1% (WW)	\$4.5M (W) & \$3.8M (WW)	9.25%-11.25%	Staff recommendation filed slightly later than expected in mid February (originally planned to be completed by 1/30/09). Final order anticipated in late March.
Artesian R.	NC	7/18/08	Water & Sewer	Consolidated	38.9%	\$12.32M	11%	The company reached a settlement with staff in late January that assumes a 10.45% allowed ROE. Pending final Commission approval
	DE	4/22/08	Water	Delaware	27.3%	\$13.6M	11.60%	Artesian implemented a temporary rate increase of \$2.5 million (annualized) on June 21st (60 days after initial rate increase). The company increased rates by an additional \$5.1 million (annualized) on December 17th. Briefs have been filed by the company and oral arguments are slated for this summer.
American States	CA	7/2/08	Water	Region 2,3, and Corp. (for 2010; 2011; 2012)	Region II: 20.1%; 2.2%; & 3.4%; Region III: 32.7%; 1.4%; 2.9%	Region II: \$20.3M; \$2.6M; & \$4.2M; Region III: \$30.0M; \$1.7M; & \$3.7M	10.20%	Commissioner and ALJ have been appointed and intervenors have filed. Company recently withdrew its request to establish a DSIC surcharge mechanism. DRA is expected to give its report shortly and then hearings will begin. A final decision expected in January 2010.
	CA	6/27/08	Electric	Bear Valley	23.0%	\$6.8M		Procedural schedule states that settlement negotiations are occurring in February and a proposed decision is expected in late June.
Middlesex	DE	1/27/09	Water	Delaware (consolidated)	27.25%	\$5.4M	12.0%	The company has also petitioned to reallocate about \$1 million that it is already collecting through its DSIC mechanism into base rates. The company can implement temporary rates 60 days after filing its request.
Pennichuck	NH	5/2/08	Water	Pittsfield & North County	44% & 240% respectively	\$1.2M		Temporary rates went into effect in mid January, dating back to July 28, 2008 (approximately \$0.7 million annually)
	NH	6/23/08	Water	Pennichuck Water Works	14.7%, 5.05%, 5.5% (25.27% combined)	\$3.2M, \$1.1M, \$1.2M		Temporary rates went into effect in mid January, dating back to July 28, 2008 (approximately \$2.4 million annually)
SJW Corp.	CA	1/21/09	Water	San Jose Water (for 2010; 2011; 2012)	18.44%; 6.52%; 8.1%	\$36.3M; \$15.2M; \$19.9M	N/A	SJW filed for a rate increase of \$36.3M (18.44%) in 2010; \$15.2M (6.52%) in 2011; and \$19.9M (8.1%) in 2012. Commissioner Bohn and ALJ Galvin have been assigned to the proceeding. Return on Equity will be filed as part of the May cost of capital proceeding.
	TX	11/14/08	Water	CLWSC (consolidated)	14%		12.0%	Rates went into effect on January 14th (60 days after filing). Protest period for customers is until March 14th.
Southwest	CA	1/2/08	Water	Suburban Water - LA & Orange County (for 2009; 2010; 2011)	13.57%, 2.97%, 2.12% over 3 years	\$6.8M; \$1.7M; \$1.3M	N/A	Final approval was bumped from recent PUC meeting - on Agenda for February 20th. ALJ Proposed decision announced. \$5.57M in 2009; \$1.51M in 2010; \$1.28M in 2011.
General Cases	CA	5/1/08	Cost of Capital	California Water (CWT), Cal American (AWK), Golden States Water (AWR)	NA	NA	12.57%, 11.5%, 12.1% resp.	A final decision has been postponed to allow for additional witness testimony. Witness testimony has already been submitted and witnesses will be questioned in mid-February.

Source: Company filings and Commission websites

IMPORTANT DISCLOSURES

Research Analyst Certification

Each of the primarily responsible analysts for this research report, Debra G. Coy and Heike M. Doerr, certify that all the views in this research report accurately reflect her personal views about any and all of the subject securities or issuers. No part of her compensation was, is, or will be directly or indirectly, related to the specific recommendations or views expressed in this research report.

Janney Montgomery Scott LLC Equity Research Disclosure Legend February 24, 2009

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Price Charts

Contact JMS for the charts containing rating and price target information of covered companies.

Janney Montgomery Scott Ratings Distribution as of December 31, 2008*

<u>BUY</u>	<u>NEUTRAL</u>	<u>SELL</u>
48%	49%	3%

*As a percent of total coverage. See ratings definition above.

Janney Montgomery Scott Ratings of Investment Banking Relationships as of December 31, 2008**

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RESEARCH
DEPARTMENT



Janney Montgomery Scott LLC

Gary Schatz	Managing Director	(215) 665-6234 gschatz@jmsonline.com
Liam D. Burke	Director/Research Special Situations	(202) 955-4305 lburke@jmsonline.com
Debra G. Coy	First Vice President Water	(202) 955-4315 dcoy@jmsonline.com
Jonathan P. Feeney, CFA	Director/Research Food • Beverage	(215) 665-6679 jfeeney@jmsonline.com
Stephanie M. Krewson	Director/Research Real Estate Investment Trusts	(215) 665-6385 skrewson@jmsonline.com
James C. Lucas	Director/Research Industrials	(215) 665-6196 jlucas@jmsonline.com
Thomas C. McCrohan	Director/Research Financial Technology	(215) 665-6293 tmccrohan@jmsonline.com
Shawn Milne	Director/Research E-Commerce/Internet	(415) 981-9539 smilne@jmsonline.com
Mitchell B. Pinheiro, CFA	Senior Vice President Food • Beverage	(215) 665-6280 mpinheiro@jmsonline.com
John M.A. Roy, Ph.D.	Director/Research Alternative Energy	(646) 840-4606 jroy@jmsonline.com
Dan Wantrobski, CMT	Director/ Technical Research	(215) 665-4446 dwantrobski@jmsonline.com
Richard D. Weiss	Director/Research Banks • Thrifts	(215) 665-6224 rweiss@jmsonline.com
Tony Wible, CFA	Director/Research Entertainment & Digital Media	(215) 665-6529 twible@jmsonline.com
Heike M. Doerr	Analyst/Research Water	(215) 665-4448 hdoerr@jmsonline.com
Joseph D. Foresi	Analyst/Research Information Technology Services	(617) 557-2972 jforesi@jmsonline.com
Stephen M. Moss	Analyst/Research Banks • Thrifts	(215) 665-4595 smoss@jmsonline.com
John T.G. Rogers, CFA	Analyst/Research Special Situations	(202) 966-4316 jrogers@jmsonline.com
Leonard A. DeProspero III, CFA	Senior Research Associate Financial Technology	(215) 665-4559 ldeprospero@jmsonline.com
Ryan C. MacLean, CFA	Senior Research Associate Industrials	(215) 665-6213 rmaclean@jmsonline.com
Michael Wherley	Senior Research Associate Industrials	(215) 665-4476 mwherley@jmsonline.com
Andrew DiZio, CFA	Research Associate Real Estate Investment Trusts	(215) 665-6439 adizio@jmsonline.com
Daniel P. Donlan	Research Associate Real Estate Investment Trusts	(215) 665-6476 ddonlan@jmsonline.com
Brian Holland	Research Associate Food • Beverage	(215) 665-4478 bholland@jmsonline.com
Albert Lui	Research Associate Entertainment & Digital Media	(215) 665-4572 alui@jmsonline.com
Christopher J. Purtill	Research Associate Water	(215) 665-6601 cpurtill@jmsonline.com
John San Marco	Research Associate Food • Beverage	(646) 840-4607 jsanmarco@jmsonline.com

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Dec 05 2022

CREDIT OPINION

24 March 2022

Update

 Rate this Research

RATINGS

Duke Energy Progress, LLC

Domicile	North Carolina, United States
Long Term Rating	A2
Type	LT Issuer Rating
Outlook	Stable

Please see the [ratings section](#) at the end of this report for more information. The ratings and outlook shown reflect information as of the publication date.

Analyst Contacts

Nana Hamilton +1.212.553.9440
 VP-Senior Analyst
 nana.hamilton@moodys.com

Gajendra Mandal +1.416.214.3861
 Associate Analyst
 gajendra.mandal@moodys.com

Michael G. Haggarty +1.212.553.7172
 Associate Managing Director
 michael.haggarty@moodys.com

Jim Hempstead +1.212.553.4318
 MD - Global Infrastructure & Cyber Risk
 james.hempstead@moodys.com

Duke Energy Progress, LLC

Update to credit analysis

Summary

Duke Energy Progress, LLC's credit reflects its low business and operating risk profile as a fully regulated utility with service territories in credit supportive environments in both North and South Carolina. Our view also considers Duke Energy Progress' position as part of the Duke Energy Corporation family, making up over 20% of its rate base. We expect the recently passed North Carolina House Bill (HB) 951, discussed below, to be an important driver of the company's credit quality going forward. Over the next two years, we expect the company's ratio of cash flow from operations excluding changes in working capital (CFO pre-WC) to debt to be maintained in the low 20% range, which is supportive of its current A2 credit rating.

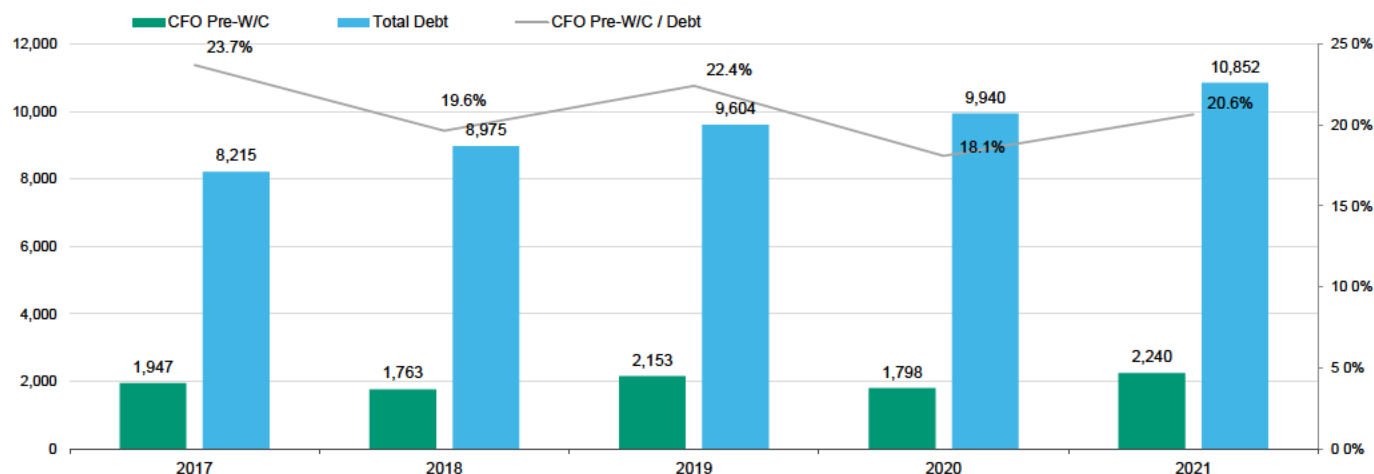
Recent Developments

On 13 October 2021, North Carolina Governor Roy Cooper signed into law HB 951, legislation that is intended to guide North Carolina's clean energy transition. The legislation directs the North Carolina Utilities Commission (NCUC), in collaboration with the state's utilities and other stakeholders, to develop a plan to reduce carbon emissions by 70% by 2030 and achieve carbon neutrality by 2050 via the least cost means and while maintaining reliability. It also allows Duke's North Carolina utilities to own and rate base 55% of commission approved new solar generation facilities and fully rate base all other approved new sources of generation. For early coal power plant retirements, the law allows for the securitization of 50% of remaining net book value. In addition, the law authorizes the NCUC to consider multiyear rate plans (MYRP) and performance-based ratemaking (PBR) as well as revenue decoupling, a mechanism we view as credit positive, for residential customers.

On 10 February 2022, the NCUC adopted rules to guide the PBR application and review process and we expect the company's next rate case filing to be a multiyear request under the new PBR framework. Subject to efficient implementation by the NCUC, an MYRP framework with performance-based incentives would be credit positive for Duke Energy Progress because it would provide greater revenue visibility and reduce regulatory lag in a state where electric utilities do not benefit from tracking mechanisms. In addition, it could improve earnings and cash flow with a focus on operational efficiency and customer service as the utilities transition to clean energy.

Exhibit 1

Historical CFO Pre-WC, Total Debt and CFO Pre-WC to Debt (\$ MM)



Note: The 2021 CFO pre-WC to debt ratio, excluding the financial impact of storm cost securitization, would be approximately 22.2%.

Source: Moody's Financial Metrics

Credit strengths

- » Credit supportive regulatory environments
- » New PBR framework in North Carolina could reduce regulatory lag
- » Recent North Carolina coal ash settlement resolves issues surrounding prudence and cost recovery
- » Growing service territories

Credit challenges

- » Substantial capital expenditure program
- » Regulatory lag due to lack of rider/tracker mechanisms for cost recovery
- » Storm prone service territory

Rating outlook

The stable outlook recognizes Duke Energy Progress' supportive regulatory relationships in North and South Carolina. The stable outlook assumes that the utility will recover its prudently incurred costs in a relatively timely manner, and that the company will fund its significant capital program in a manner that supports its balance sheet. The outlook also reflects our view that the utility's financial profile will remain supportive of its current credit quality. For example, we expect Duke Energy Progress to continue to demonstrate a ratio of cash flow from operations excluding changes in working capital (CFO pre-WC) to debt in the low 20% range.

Factors that could lead to an upgrade

- » Credit positive changes in the utility's regulatory framework, including more riders and trackers to reduce regulatory lag and improve cash flow.
- » Increased cash flow, or a reduction in leverage, enabling the company to maintain a ratio of CFO pre-WC to debt around 25%.

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the ratings tab on the issuer/entity page on www.moodys.com for the most updated credit rating action information and rating history.

Factors that could lead to a downgrade

- » A decline in the credit supportiveness of Duke Energy Progress' regulatory relationships in North or South Carolina.
- » Additional capital expenditures or other capital needs that result in a material increase in debt levels or are not recoverable.
- » A ratio of CFO pre-WC to debt, excluding the financial effects of storm cost securitization, remaining below 20% on a sustained basis.

Key indicators

Exhibit 2

Duke Energy Progress, LLC [1]

	Dec-17	Dec-18	Dec-19	Dec-20	Dec-21
CFO Pre-W/C + Interest / Interest	6.9x	5.9x	7.1x	7.3x	8.0x
CFO Pre-W/C / Debt	23.7%	19.6%	22.4%	18.1%	20.6%
CFO Pre-W/C – Dividends / Debt	22.2%	17.7%	22.4%	14.1%	14.2%
Debt / Capitalization	45.7%	46.1%	45.4%	46.2%	48.0%

[1] All ratios are based on 'Adjusted' financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations. Financial Metrics™

Source: Moody's Financial Metrics

Profile

Duke Energy Progress, LLC is a vertically integrated electric utility serving approximately 1.7 million customers in North Carolina and South Carolina. Duke Energy Progress is a subsidiary of intermediate holding company Progress Energy, Inc. (Baa1 stable) and parent company Duke Energy Corporation (Duke Energy, Baa2 stable). The utility is regulated by the North Carolina Utilities Commission (NCUC) and the Public Service Commission of South Carolina (PSCSC).

Detailed credit considerations

Credit supportive regulatory environments

The regulatory environments in both North and South Carolina have historically been credit supportive with regards to timeliness of rate decisions, ultimate recovery of prudently incurred costs, authorized returns and equity layers. Utilities have been able to reach settlement agreements on traditional rate making parameters, which we view positively, leaving only more contentious items, such as the recovery of coal ash remediation spending, to be fully litigated. Most recently, in January 2021 in North Carolina, Duke Energy Progress reached a settlement agreement with key intervenors resolving all prior issues with regard to coal ash and establishing a framework for future recovery.

Despite this generally collaborative environment, utilities in North and South Carolina do not benefit from tracking mechanisms that could serve to reduce regulatory lag on investment in their systems or to speed the recovery of coal ash remediation spending. However, North Carolina's new PBR framework is a positive development towards mitigating regulatory lag.

North Carolina – In January 2021, Duke Energy announced a settlement agreement with the North Carolina Attorney General's Office, the Public Staff and the Sierra Club that resolved all issues surrounding historical coal ash remediation prudence and cost recovery in the state. The settlement addressed items on remand from a prior (2018) NCUC rate decision, including an issue of equitable sharing, as well as those in Duke Energy Progress' 2019 rate proceeding. The agreement also provided a framework for the recovery of coal ash remediation spending through 2030. The settlement was approved on 16 April 2021.

The January settlement affirmed the cost recovery provisions for the coal ash spending that was approved in the NCUC's 2018 rate decision, which included a five year amortization period with a full debt and equity return. Duke Energy Progress will also be able to recover approved costs in its 2019 rate case over five years and will earn a debt and equity return on the deferred balance; however the equity rate earned during the amortization period will be set 150 basis points below the 9.6% ROE approved in the 2019 rate case.

The coal ash settlement also limits the scope of future rate proceedings and establishes that, through 2030, the company will continue to be able to earn a debt and equity return for coal ash remediation spending, with the equity rate set at 150 basis points below the prevailing ROE. As part of the settlement, Duke Energy Progress agreed not to seek recovery of a portion of its deferred coal

Public Staff WSIP Exhibit 9
Page 4 of 21

ash expenditures and, as a result, the company recorded an approximate \$494 million pre-tax impairment charge and will refund approximately \$102 million of previously collected wholesale revenues. This represents a sharing of costs with shareholders and was a provision sought by parties to the settlement

Duke Energy Progress' North Carolina last base rate case was filed in October 2019 and included a request for an approximate 12.3% (\$464 million) net increase in revenue (net of about \$120 million proposed as a deferred tax rider), premised on a 53% equity ratio and a 10.3% ROE. The filing also requested recovery of \$530 million of coal ash remediation costs deferred from September 2017 - February 2020 over five years. The utility initially requested that rates become effective no later than September 2020, although the procedural schedule shifted due to the coronavirus. Settlements were reached on all issues other than the utility's requests for accelerated depreciation of its coal plants and parties to the rate case settled on an ROE of 9.6% and a 52% equity layer. In its April 2021 order approving Duke Energy Progress' rate case settlements, the NCUC denied the accelerated depreciation request, stating it would be more appropriately considered in the company's Integrated Resource Plan (IRP) docket.

Parties to the 2019 rate case also agreed that deferred storm costs of about \$656 million should be removed from the revenue request, and included in a subsequent request for securitization. In May 2021, the NCUC approved the storm securitization and issued an order allowing the company to issue storm recovery bonds to recover \$770 million of storm costs, including carrying and financing costs, over a period of 20 years. The bonds were issued in November 2021.

South Carolina - (under 10% of rate base) The PSCSC's May 2019 order in Duke Energy Progress' most recent case denied recovery of the majority of the company's incremental South Carolina allocated spending on coal ash remediation because the incremental costs were a result of North Carolina's coal ash law. However, the balance of the order (which included an approved 53% equity ratio) was generally credit supportive. The company appealed the coal ash disallowance to the Supreme Court of South Carolina. On 27 October 2021, the Supreme Court affirmed the PSCSC's May 2019 order. As a result, Duke Energy Progress recognized approximately \$42 million of impairment charges and a \$6 million increase in other income for fiscal year 2021. In February 2022, the South Carolina Supreme Court denied a petition for rehearing filed by Duke Energy Progress in November 2021 on issues including the decision on coal ash cost recovery.

On a more positive note, the South Carolina order continued authorization of the utility's ability to earn a full weighted average cost of capital return on its previously approved coal ash remediation spending. The order also shortened the recovery period to five years, versus a previously approved fifteen years.

Financial metrics are expected to remain supportive of credit quality

Duke Energy Progress' financial profile is supportive of its credit quality. Going forward, we expect the company's ratio of CFO pre-WC to be sustained in the low 20% range, which is supportive of its current credit quality.

In the second half of 2018, a succession of unusually severe storms resulted in over \$1 billion of unplanned costs across Duke's territories in the Carolinas and Florida. The NCUC approved recovery of storm costs via securitization and Duke Energy Progress issued \$770 million of storm recovery bonds in November 2021. Our analysis of Duke Energy Progress' financial metrics excludes the effects of the securitization bonds on the company's financials. The bonds negatively impacted the company's 20.6% 2021 GAAP based ratio of CFO pre-WC to debt by about 160 basis points.

Going forward, we expect the continued lag in the recovery of ongoing coal ash remediation spending (which still must be recovered via general base rate case proceedings) and storm costs, along with elevated spending for grid modernization, to maintain pressure on financial credit metrics. However, assuming a continued focus on operational efficiency, cost management and a relatively balanced financing plan, we believe the utility will be able to generate a ratio of CFO pre-WC to debt in the low 20% range.

Our analysis of Duke Energy Progress reflects the impact of its current settlement agreements in North Carolina. Our calculation of Duke Energy Progress' credit metrics also reflects our treatment of coal ash remediation expenditures as akin to a capital investment rather than an operating expense. We have taken this view in light of the fact that the company has been allowed to earn a debt and equity return on its approved deferral balances. Although the settlement incorporates a discount to the equity return, bringing it to 8.1% versus the 9.6% settlement in the current case, we recognize that regulatory commissions have discretion to establish different ROEs for particular investments, or for use in various riders.

Capital expenditures, including coal ash remediation spending, have moderated, but will remain substantial

Duke Energy Progress' annual capital expenditures (inclusive of coal ash remediation spending) moderated in 2020 and 2021 to about \$1.9 billion per year, down from about \$2.5 billion per year in 2018 and 2019. From 2022 onwards, the company forecasts capital spending to accelerate once again, averaging around \$2.9 billion per year through 2026, as it spends heavily on its electric distribution system.

Payments for coal ash related asset retirement obligations were \$304 million in 2020 and \$187 million in 2021. Going forward, we anticipate environmental spending, inclusive of coal ash remediation, will subside to a level of around \$200 million per year. The decline is reflective of the completion of work to close "high-risk" ash remediation sites in 2019 and 2020, and a settlement reached with the North Carolina Department of Environmental Quality (NCDEQ) that allows the bulk of the remaining expenditures to occur over a period of 15-20 years.

In September 2020, Duke Energy filed an integrated resource plan for the Carolinas outlining six potential portfolios that would allow the company to achieve its climate goals. Following the passage of HB 951, which requires the NCUC to develop, together with the state's utilities, a plan to reduce carbon emissions by 70% by 2030 and achieve carbon neutrality by 2050, the NCUC declined to make a determination on the portfolios presented in the 2020 IRP. Duke Energy expects to file an initial carbon plan by 16 May 2022 that builds on the 2020 IRPs filed by Duke Carolinas and Duke Energy Progress and incorporate stakeholder feedback. The commission's carbon reduction plan will be informed by this initial carbon plan. We expect the carbon reduction plan to drive a substantial portion of Duke Energy's and Duke Energy Progress' capital expenditures in the second half of the decade.

Although HB 951 is North Carolina legislation, we expect Duke Energy Progress to also work with regulators in South Carolina to achieve its carbon reduction goals without cost recovery disallowances in South Carolina as happened with coal ash cost recovery in the company's last rate case.

Coal ash remediation is well under way, with clarity on costs, and issues around recovery in North Carolina have been settled

Duke Energy has continued to refine its estimates of coal ash remediation spending since it first recognized an asset retirement obligation in 2014. In December of 2019 the company reached an agreement with the NCDEQ establishing the means and time frames for remediation of its remaining coal ash basins. The settlement called for the full excavation of the majority of the ash over a period of 15-20 years. As of December 31, 2021, Duke had spent approximately \$3.7 billion, including around \$1.6 billion at Duke Energy Progress, and its total remaining asset retirement obligation was estimated at about \$5.3 billion, including about \$1.8 billion at Duke Energy Progress.

Duke Energy Progress' coal ash basin closure and remediation spending is not recovered via trackers or other automatic cost recovery provisions and must be recovered via base rate case filings. As a result, there will likely continue to be regulatory lag in the recovery of these costs.

ESG considerations

Environmental considerations incorporated into our credit analysis for Duke Energy Progress are primarily related to carbon regulations and physical climate risk.

As an integrated electric utility, Duke Energy Progress' generation ownership places it at a higher risk profile than transmission and distribution companies. As of December 31, 2021, approximately 25% of Duke Energy Progress' 12,468 MW generation portfolio is coal fired. In 2021, Duke Energy Progress' generated energy was produced approximately 50% from nuclear fuel, which lowers the company's carbon footprint, 38% from oil and natural gas, 10% from coal and 2% from renewables including hydro. North Carolina's HB 951 requires that the company reduce carbon emissions by 70% by 2030 and achieve carbon neutrality by 2050. Together with the NCUC, the company is in the process of developing a plan to achieve those goals.

Duke Energy Progress is also exposed to physical climate risk as it relates to damage to physical assets caused by severe storms in its service territory. The company issued storm recovery bonds in November 2021 to recover storm costs incurred in 2018 and 2019 via securitization, a credit positive.

Social risks are primarily related to health and safety as well as demographic and societal trends, including the risk that public concern about environmental, social or affordability issues could lead to adverse regulatory or political outcomes.

Corporate governance is driven by that of parent Duke, which is broadly in line with other utilities and poses no particular risk. Prudent financial policies and risk management that ensures a strong financial position at Duke Energy Progress is key to managing the utility's environmental and social risks.

Liquidity analysis

We expect Duke Energy Progress to maintain an adequate liquidity profile. In 2021, the utility generated approximately \$2 billion of cash from operations (CFO), invested approximately \$1.7 billion in capital expenditures (excluding coal ash remediation spending) and distributed \$700 million to its parent Duke Energy, resulting in negative free cash flow (FCF) of approximately \$490 million. Going forward, we expect Duke Energy Progress to remain cash flow negative and that shortfalls will continue to be funded via a combination of internal and external sources.

Duke Energy Progress' liquidity sources include its access to funding from the Duke parent company's commercial paper program through the Duke system money pool, and from direct borrowings from the money pool. As of 31 December 2021, the utility also had \$1.15 billion of direct borrowing capacity under Duke Energy's master five-year credit facility, of which \$841 million was available.

On 18 March 2022, Duke Energy upsized its master credit facility from \$8 billion to \$9 billion. Duke Energy Progress' current borrowing capacity under the facility is \$1.4 billion, with a maximum sublimit of \$1.575 billion. The master credit agreement terminates in March 2027. The facility does not contain a material adverse change clause for new borrowings and contains a single financial covenant requiring Duke Energy and its utility subsidiaries to maintain a consolidated debt to capitalization ratio of no more than 65%, except for Piedmont Natural Gas Company (Piedmont). The debt to capital covenant level for Piedmont is 70%. As of December 2021, Duke reported that all of the borrowing entities were in compliance with this covenant and we estimate Duke Energy Progress' ratio was about 53%.

Duke Energy Progress' nearest long-term debt maturities include \$500 million of first mortgage bonds due in May 2022 and \$350 million of account receivable securitization debt due in April 2023.

Rating methodology and scorecard factors

Exhibit 3

Methodology Scorecard Factors

Duke Energy Progress, LLC

Regulated Electric and Gas Utilities Industry Scorecard [1][2]			Current FY 12/31/2021		Moody's 12-18 Month Forward View As of Date Published [3]	
Factor 1 : Regulatory Framework (25%)			Measure	Score	Measure	Score
a) Legislative and Judicial Underpinnings of the Regulatory Framework			A	A	A	A
b) Consistency and Predictability of Regulation			Aa	Aa	Aa	Aa
Factor 2 : Ability to Recover Costs and Earn Returns (25%)						
a) Timeliness of Recovery of Operating and Capital Costs			A	A	A	A
b) Sufficiency of Rates and Returns			Baa	Baa	Baa	Baa
Factor 3 : Diversification (10%)						
a) Market Position			Baa	Baa	Baa	Baa
b) Generation and Fuel Diversity			A	A	A	A
Factor 4 : Financial Strength (40%)						
a) CFO pre-WC + Interest / Interest (3 Year Avg)			7.5x	Aa	6.8x - 7.2x	Aa
b) CFO pre-WC / Debt (3 Year Avg)			20.4%	Baa	20% - 22%	Baa
c) CFO pre-WC – Dividends / Debt (3 Year Avg)			16.8%	Baa	13% - 18%	Baa
d) Debt / Capitalization (3 Year Avg)			46.6%	Baa	40% - 48%	A
Rating:						
Scorecard-Indicated Outcome Before Notching Adjustment				A3		A3
HoldCo Structural Subordination Notching				0		0
a) Scorecard-Indicated Outcome				A3		A3
b) Actual Rating Assigned				A2		A2

[1] All ratios are based on 'Adjusted' financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations.

[2] As of 12/31/2021

[3] This represents Moody's forward view; not the view of the issuer; and unless noted in the text, does not incorporate significant acquisitions and divestitures.

Source: Moody's Financial Metrics

Appendix

Exhibit 4

Cash Flow and Credit Metrics [1]

CF Metrics	Dec-17	Dec-18	Dec-19	Dec-20	Dec-21
As Adjusted					
FFO	2,018	2,198	2,321	2,010	2,293
+/- Other	-71	-435	-168	-212	-53
CFO Pre-WC	1,947	1,763	2,153	1,798	2,240
+/- ΔWC	-524	93	86	230	-28
CFO	1,423	1,856	2,239	2,028	2,212
- Div	124	175	0	400	700
- Capex	1,943	2,448	2,529	1,949	2,020
FCF	-644	-767	-290	-321	-508
(CFO Pre-W/C) / Debt	23.7%	19.6%	22.4%	18.1%	20.6%
(CFO Pre-W/C - Dividends) / Debt	22.2%	17.7%	22.4%	14.1%	14.2%
FFO / Debt	24.6%	24.5%	24.2%	20.2%	21.1%
RCF / Debt	23.1%	22.5%	24.2%	16.2%	14.7%
Revenue	5,129	5,699	5,957	5,422	5,780
Interest Expense	333	362	350	284	320
Net Income	702	570	767	787	1,013
Total Assets	28,305	30,376	33,349	33,733	35,383
Total Liabilities	20,427	22,011	24,183	24,473	25,832
Total Equity	7,878	8,365	9,166	9,260	9,551

[1] All figures and ratios are calculated using Moody's estimates and standard adjustments. Periods are Financial Year-End unless indicated. LTM = Last Twelve Months

Source: Moody's Financial Metrics

Exhibit 5

Peer Comparison Table [1]

(In US millions)	Duke Energy Progress, LLC (P)A2 (Stable)			Dominion Energy South Carolina, Inc. Baa2 (Positive)			Duke Energy Carolinas, LLC A2 (Stable)			Georgia Power Company Baa1 (Stable)		
	FYE	FYE	FYE	FYE	FYE	LTM	FYE	FYE	FYE	FYE	FYE	LTM
	Dec-19	Dec-20	Dec-21	Dec-19	Dec-20	Sept-21	Dec-19	Dec-20	Dec-21	Dec-19	Dec-20	Sept-21
Revenue	5,957	5,422	5,780	1,929	2,739	2,987	7,395	7,015	7,102	8,408	8,309	8,990
CFO Pre-W/C	2,153	1,798	2,240	647	949	791	3,143	2,704	3,130	3,118	3,271	3,149
Total Debt	9,604	9,940	10,852	4,237	3,972	4,217	12,151	12,853	13,594	13,832	14,553	15,113
CFO Pre-W/C + Interest / Interest	7.1x	7.3x	8.0x	3.5x	5.1x	4.7x	7.3x	6.2x	6.5x	7.1x	7.2x	7.0x
CFO Pre-W/C / Debt	22.4%	18.1%	20.6%	15.3%	23.9%	18.8%	25.9%	21.0%	23.0%	22.5%	22.5%	20.8%
CFO Pre-W/C - Dividends / Debt	22.4%	14.1%	14.2%	14.6%	22.9%	13.6%	23.6%	16.4%	18.6%	11.1%	11.9%	10.1%
Debt / Capitalization	45.4%	46.2%	48.0%	48.6%	42.6%	43.7%	42.2%	43.1%	43.7%	43.1%	42.4%	42.3%

[1] All figures & ratios calculated using Moody's estimates & standard adjustments. FYE = Financial Year-End. LTM = Last Twelve Months. RUR* = Ratings under Review, where UPG = for upgrade and DNG = for downgrade

Source: Moody's Financial Metrics

Ratings

Exhibit 6

Category	Moody's Rating
DUKE ENERGY PROGRESS, LLC	
Outlook	Stable
Issuer Rating	A2
First Mortgage Bonds	Aa3
Senior Secured Shelf	(P)Aa3
Senior Unsecured Shelf	(P)A2
ULT PARENT: DUKE ENERGY CORPORATION	
Outlook	Stable
Issuer Rating	Baa2
Sr Unsec Bank Credit Facility	Baa2
Senior Unsecured	Baa2
Jr Subordinate	Baa3
Pref. Stock	Ba1
Commercial Paper	P-2
PARENT: PROGRESS ENERGY, INC.	
Outlook	Stable
Senior Unsecured	Baa1

Source: Moody's Investors Service

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REPORT NUMBER

1321387

MOODY'S
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CREDIT OPINION

26 August 2021

Update

✓ Rate this Research

RATINGS

Puget Sound Energy, Inc.

Domicile	Bellevue, Washington, United States
Long Term Rating	Baa1
Type	LT Issuer Rating - Dom Curr
Outlook	Stable

Please see the [ratings section](#) at the end of this report for more information. The ratings and outlook shown reflect information as of the publication date.

Contacts

Edna R Marinelarena +1.212.553.1383
AVP-Analyst
edna.marinelarena@moodys.com

Yulia Rakityanskaya +1.416.214.3627
Associate Analyst
yulia.rakityanskaya@moodys.com

Michael G. Haggarty +1.212.553.7172
Associate Managing Director
michael.haggarty@moodys.com

CLIENT SERVICES

Americas 1-212-553-1653
Asia Pacific 852-3551-3077
Japan 81-3-5408-4100
EMEA 44-20-7772-5454

Puget Sound Energy, Inc.

Update to credit analysis

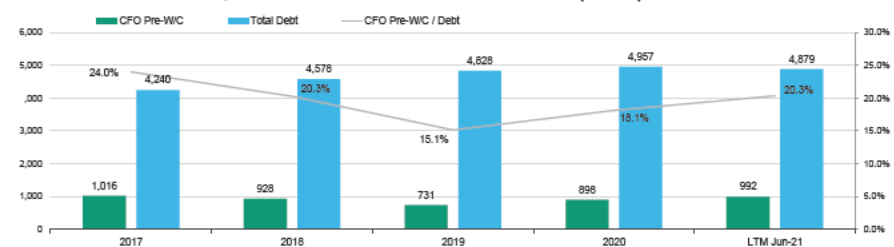
Summary

[Puget Sound Energy, Inc.](#)'s (PSE) credit profile reflects its low risk regulated utility operations with a number of credit supportive cost recovery mechanisms authorized by its primary regulator, the Washington Utilities and Transportation Commission (WUTC). Although the utility's 2020 rate case was contentious, our assessment of PSE's credit acknowledges the WUTC's stated objective to limit the customer rate impact during the uncertain economic conditions caused by the coronavirus pandemic. The outcome of PSE's next regulatory proceeding will be important to its credit profile going forward.

The company's cash flow from operations before changes in working capital (CFO pre-WC) to debt ratio has declined since 2017 because of a combination of factors including federal tax reform, higher debt and regulatory lag. The unfavorable July 2020 rate case outcome further delayed needed cash flow recovery. We expect credit metrics to remain in the high teens over the next several years as we anticipate Puget's management will take actions to prevent further deterioration of the company's metrics until the utility files its next rate case. The stable outlook reflects our expectation that this financial weakness will be temporary and that regulatory support for the utility will improve as the state's economic activity recovers. PSE's credit is also constrained by high holding company leverage at its parent, [Puget Energy, Inc.](#) (Puget).

Exhibit 1

Historical CFO Pre-WC, Total Debt and CFO Pre-WC to Debt (\$ MM)



Source: Moody's Financial Metrics

Credit Strengths

- » Credit supportive regulatory mechanisms
- » Washington legislation provides for additional credit positive regulatory tools for PSE's electric operations
- » Ring-fence type provisions help insulate utility from highly levered parent company

Credit Challenges

- » Increasing regulatory lag, exacerbated by unfavorable July 2020 rate case outcome
- » Declining credit metrics have recovered somewhat, but are expected to remain weak
- » PSE's dividends are required to service \$2 billion of holding company debt
- » Significant capital expenditures over the next 12-18 months

Rating Outlook

The stable outlook reflects our view that the PSE's financial profile, although weakened in recent years, will recover and that its CFO pre-W/C to debt ratio will be sustained in the 18%-19% range over the next two years as a result of management actions and our expectation of a more credit supportive outcome in its next rate case that will lead to more timely cash flow recovery.

Factors that Could Lead to an Upgrade

A rating upgrade could occur if there is an improvement in the Washington regulatory environment that supports a CFO pre-WC to debt ratio above 22% on a consistent basis, which would require a credit supportive outcome of its next rate case. A reduction in leverage at the parent holding company could also lead to a rating upgrade.

Factors that Could Lead to a Downgrade

A rating downgrade could occur if decisions from the WUTC continue to be inconsistent and unsupportive of credit quality, particularly with regard to the utility's next rate case. If PSE's CFO pre-WC to debt is sustained below 19%, if there is a material change in financial policies including extraordinary shareholder dividends, or if there is a rating downgrade of parent company Puget, a downgrade of PSE's rating could occur.

Key Indicators

Exhibit 2

Puget Sound Energy, Inc. [1]

	Dec-17	Dec-18	Dec-19	Dec-20	LTM Jun-21
CFO Pre-W/C + Interest / Interest	5.4x	4.8x	3.9x	4.5x	4.9x
CFO Pre-W/C / Debt	24.0%	20.3%	15.1%	18.1%	20.3%
CFO Pre-W/C – Dividends / Debt	18.5%	16.5%	11.7%	15.1%	17.3%
Debt / Capitalization	48.5%	49.9%	49.3%	49.0%	47.4%

[1] All ratios are based on 'Adjusted' financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations.

Source: Moody's Financial Metrics

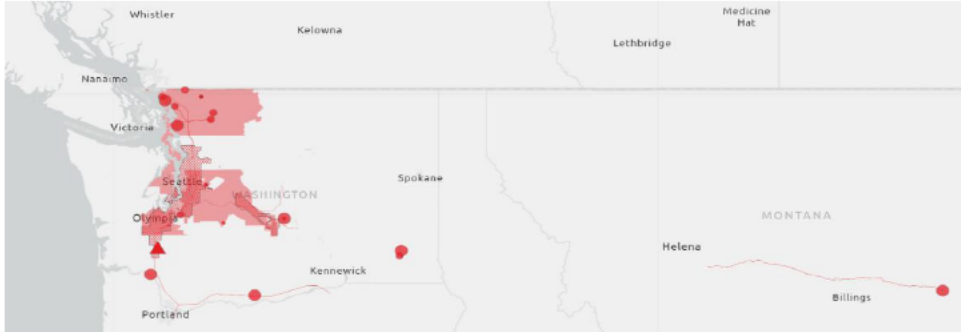
Profile

[Puget Sound Energy, Inc.](#) (PSE), the primary subsidiary of [Puget Energy, Inc.](#) (Puget), is an electric and natural gas utility serving about 1.2 million electric and around 856,000 natural gas customers in the State of Washington. PSE's electric rate base represents about 70% of its approximately \$8.0 billion total rate base.

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the ratings tab on the issuer/entity page on www.moodys.com for the most updated credit rating action information and rating history.

Exhibit 3

Puget's service territory in the Puget Sound Region of Western Washington

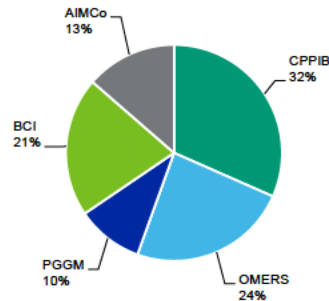


Source: S&P Global Market Intelligence

PSE is part of a complex ownership structure put in place following Puget's acquisition in 2009 by Puget Holdings LLC, which is now indirectly owned by a consortium of pension fund investors as shown in Exhibit 4. In July 2021, Macquarie Asset Management (MAM) and Ontario Teacher's Pension Plan Board reached an agreement to jointly acquire a 31.6% stake in Puget Holdings, LLC from Canada Pension Plan Investment Board (CPPIB, CPP Investments). The agreement is pending regulatory approvals.

Exhibit 4

Puget's ownership composition



Source: Puget Energy

Detailed credit considerations

Declining credit metrics have recovered somewhat, but are expected to remain weak

PSE's financial metrics have weakened since 2017 as a result of cash flow loss attributable to tax reform, changes in the utility's rate plan and significant capital expenditures. The company's metrics were particularly low in 2019 because of the adverse effects of an [Enbridge Inc.](#) (Enbridge, Baa1 stable) pipeline rupture and a colder than normal winter on purchased gas costs. These costs are being recovered over a three-year period instead of the usual one year time frame to reduce the impact on customers. In 2020, the company ended the year with a CFO pre-WC to debt ratio at 18%, an improvement over the 2019 low, but still weak compared to historic levels.

We had expected that, with the passage of the Clean Energy Transition Act (CETA) by the Washington legislature, PSE would see a more credit supportive regulatory outcomes. However, given unfavorable economic conditions, the WUTC's focus during PSE's 2020 rate case was on mitigating the economic impact of the coronavirus pandemic on PSE's customers. We continue to view the CETA and the most recent Washington legislative action as potentially credit positive, if the supportive provisions contained in the legislation are ever implemented.

Over the next 12 to 18 months, PSE's capital expenditures are significant, in line with 2019 and 2020 levels of around \$900 million. The utility's annual capital investments prior to 2017 were in the \$500 — \$700 million range. This high capex is primarily to fund strategic

and risk mitigation initiatives, including investments in electric and gas distribution upgrades, customer and system projects, generation and IT expenditures. We expect PSE to fund capex prudently with internally generated funds and a mix of debt and equity.

In the near-term, we see Puget's management to continue to take actions to mitigate the negative cash flow impact of the 2020 rate case outcome through a combination of O&M, capital expenditure and dividend reductions. Nevertheless, PSE's credit metrics will remain weak over the next two years, with a CFO pre-WC to debt ratio of around 18%-20%.

Credit supportive regulatory mechanisms but unfavorable rate case outcome

The WUTC affords PSE a number of credit supportive cost recovery mechanisms which include decoupling, an electric and gas conservation rider, an electric property tax tracker, a power cost adjustment mechanism (PCA) and a purchased gas adjustment mechanism (PGA). PSE's revenue decoupling mechanism helps PSE obtain greater fixed cost recovery in both its electric and gas segments. The PCA and PGA allow the company to directly pass the costs of purchased power and natural gas through to customers annually. PSE also has the option to utilize an expedited rate filing (ERF) or power cost only rate case (PCORC) to recover costs on an accelerated basis between general rate cases.

Although PSE has historically maintained a credit supportive relationship with the WUTC, recent regulatory outcomes have been inconsistent. In its most recent rate case order on 8 July 2020, the WUTC initially authorized an electric revenue increase of \$29.5 million or 1.6%, but also extended the amortization of certain regulatory assets, effectively reducing the revenue increase to \$857,000 or 0.05%. With respect to gas operations, the commission also extended regulatory asset amortization, lowering its authorized revenue increase of \$36.5 million or 4% to \$1.3 million or 0.15%.

On 31 July 2020, following a motion for clarification filed by PSE, the commission corrected errors related to excess deferred income taxes (EDIT) and power costs, resulting in effective rate increases of \$31 million and \$7.7 million for electric and gas respectively. This was still far below PSE's requested rate increases of \$139.9 million or 6.9% and \$65.5 million or 7.9% for electric and gas operations respectively. The commission also authorized a below industry average return on equity of 9.4%, slightly lower than the utility's requested and previously allowed ROE of 9.5%, and an equity capitalization of 48.5%, equal to the utility's request and previously authorized equity capitalization. PSE's approximately \$40 million attrition adjustment proposal to mitigate regulatory lag was rejected by the commission as not in the public interest. Furthermore, the utility's electric decoupling deferral was extended to two years from one year and its PGA deferral, already extended to two years from one year because of significant gas costs incurred during the 2018-2019 winter because of an Enbridge pipeline rupture and cold weather, was extended further to three years.

Other notable provisions of the rate case order include:

- » Approval of an end of period rate base valuation, approval of certain pro forma capital additions such as Get to Zero investments to improve the customer experience and advanced metering infrastructure (AMI) through the end of 2019.
- » A requirement that PSE continue deferring the recovery of a return on AMI investments, though deemed prudent, until the completion of the project when the benefits to all customers would be evaluated.
- » A requirement that PSE return unprotected excess deferred income taxes (EDIT) associated with tax reform over a three year amortization period and return 2019 and 2020 protected EDIT over a 12 month period.
- » Disallowance of recovery of \$7.2 million of costs to install SmartBurn controls at Colstrip units 3 and 4, citing a failure on PSE's part to maintain contemporaneous documentation of decision-making.

The commission's objective to limit customer rate increases in light of the uncertain economic environment caused by the coronavirus pandemic was an important driver of its decisions. The outcome of PSE's next regulatory proceeding, which is expected to be filed in early 2022, will be important to its credit profile going forward.

Washington legislation has the potential to enhance regulatory framework if implemented

The Washington regulatory framework has the potential to be enhanced with the passage of two key Senate bills (SB), SB 5116 and SB 5295 in 2019 and 2021, respectively. SB 5116, a clean energy bill with aggressive carbon transition targets, was enacted in 2019 and offered utilities the potential for important regulatory tools to recover associated costs. The bill requires electric utilities to eliminate coal-fired generation by 2025, transition the state's electricity supply to 80% renewables and 100% carbon neutral power by 2030

and be 100% carbon free by 2045. We viewed the law as credit positive because it includes the potential for enhanced cost recovery mechanisms that can improve utility financial performance and provides a legal and regulatory framework to reduce carbon exposure risks.

Compliance with the law will require significant investment and an overhaul of existing state electric infrastructure. However, the law acknowledges the WUTC's authority to implement performance and incentive based regulation, multiyear rate plans and other "flexible regulatory mechanisms" to achieve the state's public interest objectives. Importantly, the law also recognizes that the policy must include safeguards that do not impair the reliability of the electricity system nor impose unreasonable costs on utility customers. We discuss more details on SB 5116 in "[Washington approves clean energy bill, a credit positive for investor-owned utilities](#)" (16 May 2019).

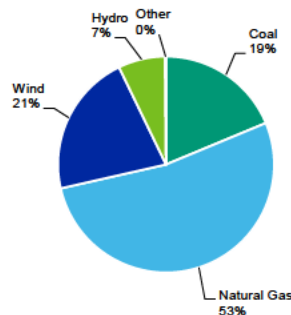
The more recently passed SB 5295 (enacted on 3 May 2021) followed the clean energy bill and aims at reforming the regulatory framework for utilities in the state by paving the way for multiyear rate plans (MYRP) and performance based ratemaking (PBR). We view the bill as credit positive as it could enhance the consistency and predictability of utility regulation. Specifically, we view the PBR construct as a credit supportive rate making mechanism because MYRPs with performance targets and the potential to earn performance incentives could reduce regulatory lag. It could also aid PSE's renewable transition, improve operational efficiency and enhance cash flow and profitability, all while considering customer cost and service. Nevertheless, the extent to which the new law will enhance the Washington regulatory framework and improve utility financial performance is subject to WUTC decisions, which have been historically inconsistent.

The bill requires the WUTC to develop, in collaboration with utilities and other interested stakeholders, a policy statement on alternatives to traditional cost of service rate making, including performance measures, incentives and penalty mechanisms. The WUTC must provide an update to the relevant legislative committees by 1 January 2022. Importantly, beginning 1 January 2022, utilities are required to include a proposal for a MYRP between two and four years in length in every general rate case filing. We discuss more details on SB 5295 in "[Legislation supporting multiyear rate plans has credit positive implications for Washington's investor owned utilities](#)" (10 May 2021).

Reduced exposure to Colstrip coal plant is credit positive

Units 1 and 2, the oldest units of the Colstrip coal-fired power plant in Rosebud County, MT, of which PSE owned 50%, were retired at the end of 2019. PSE currently owns a 25% stake in Units 3 and 4. The final order in PSE's 2019 rate case shortened the depreciable life for Colstrip 3 and 4 to 31 December 2025 aligning depreciation with the requirements of the Clean Energy Transformation Act. We view the closure of units 1 and 2 as credit positive from an environmental and sustainability perspective as it mitigates some of PSE's future environmental risk. PSE is committed to reducing its coal exposure as required by Washington state law and continues to work with all stakeholders on a transition plan.

Exhibit 5
Owned generation - 2020 (MW)



Source: Puget Energy 10K

ESG considerations

Environmental

Environmental considerations incorporated into our credit analysis for PSE are primarily related to carbon regulations. Puget and PSE are strongly positioned for carbon transition in the regulated utility sector with strategies and plans in place that substantially mitigate its carbon transition exposure. Following the retirement of Colstrip units 1 and 2, PSE's owned coal generation capacity was reduced considerably, reducing the utility's carbon transition risk. In addition, the state of Washington's clean energy transition legislation provides a legal and regulatory framework to reduce carbon exposure risks. Moody's framework for assessing carbon transition risk is discussed in "[Carbon transition risk for power generation varies widely by issuer](#)" (2 December 2020).

Social

Social risks are primarily related to demographic trends, safety, customer and regulatory relations. Similar to other utility peers, PSE has annual distribution and transmission capital expenditures that focus on electric and gas system safety, reliability and resiliency. The utility has a program aimed at improving the customer experience and is also investing in advanced metering infrastructure. These efforts help to manage social risks.

Governance

From a corporate governance perspective, including financial and risk management policies, are key to managing the company's environmental and social risk. Dividend policy is an important consideration from a governance perspective particularly given Puget's private ownership. PSE's dividend payout ratio averaged approximately 61% over the last five years. The company's owners have demonstrated a willingness to limit dividends in times of high capex and/or constrained cash flow.

Liquidity Analysis

PSE will maintain adequate liquidity for the next 12-18 months. The company's internal liquidity consists of cash flow from operations, which we expect to be close to \$1 billion through 2022. We project that the company will be free cash flow negative over the next twelve months after spending approximately \$900 million in capex and paying dividends to Puget (dividends were around \$146 million, a 34% payout ratio, for the twelve months ended 30 June 2021). PSE's negative free cash flow will be funded with a balanced mix of debt and equity.

PSE's external liquidity consists of a five-year \$800 million unsecured revolving credit facility that matures in October 2023. The facility, which includes an accordion feature that can increase its total size to \$1.4 billion upon bank approval, is used for short-term liquidity needs and as a backstop to the utility's commercial paper program. As of 30 June 2021, no amounts were outstanding under PSE's credit facility and \$231 million was outstanding under the commercial paper program.

The credit facility has a \$75 million sublimit for same day borrowings and the does not require a material adverse event representation for new money borrowings. The credit agreement also contains a financial covenant, for which debt to capitalization cannot exceed 65%. As of 30 June 2021, PSE was in compliance with all applicable covenants. Additionally, Puget has an \$800 million senior secured credit facility due in October 2023.

The company's next debt maturity is \$17 million of first mortgage bonds due in 2025, followed by \$300 million of senior secured notes due in 2027.

Structural considerations

The stronger credit profile at PSE relative to its parent, Puget, reflects the structural subordination that exists at Puget and dividend limitations imposed by the WUTC. As of 30 June 2021, Puget had approximately \$2.4 billion of standalone debt at the parent company, representing about 34% of total consolidated balance sheet debt, which includes a new issuance to refinance its September 2021 maturity. We expect parent company debt to return to 30% after repayment of this debt in September.

Due to the significant level of debt residing at Puget and with PSE being the sole source of cash flow to support Puget's debt service, regulatory protections and credit insulation are an important aspect in PSE's credit analysis.

Key among the ringfence-like mechanisms established when the WUTC approved the change in ownership in 2009 are: a required "golden share" vote to address concern about potential substantive consolidation of PSE in any parent bankruptcy or any voluntary filing by PSE; minimum required levels of PSE common equity to be maintained; and limits on PSE and parent distributions under certain circumstances. For example, dividend restrictions would apply if PSE's common equity ratio, calculated on a regulatory basis, is 44% or below (except to the extent a lower equity ratio is ordered by the WUTC) or if PSE's issuer rating falls below investment grade. If PSE's credit rating is below investment grade, PSE's ratio of EBITDA to interest expense, for the four most recently ended fiscal quarters prior to such date, must be equal to or greater than 3.0x.

Methodology and Scorecard

Exhibit 6

Methodology Scorecard Factors Puget Sound Energy, Inc.

Regulated Electric and Gas Utilities Industry [1][2]			Current LTM 6/30/2021		Moody's 12-18 Month Forward View As of Date Published [3]	
Factor 1 : Regulatory Framework (25%)	Measure	Score	Measure	Score	Measure	Score
a) Legislative and Judicial Underpinnings of the Regulatory Framework	A	A	A	A	A	A
b) Consistency and Predictability of Regulation	A	A	A	A	A	A
Factor 2 : Ability to Recover Costs and Earn Returns (25%)						
a) Timeliness of Recovery of Operating and Capital Costs	A	A	A	A	A	A
b) Sufficiency of Rates and Returns	Baa	Baa	Baa	Baa	Baa	Baa
Factor 3 : Diversification (10%)						
a) Market Position	Baa	Baa	Baa	Baa	Baa	Baa
b) Generation and Fuel Diversity	A	A	A	A	A	A
Factor 4 : Financial Strength (40%)						
a) CFO pre-WC + Interest / Interest (3 Year Avg)	4.4x	Baa	4.5x - 4.8x	A	4.5x - 4.8x	A
b) CFO pre-WC / Debt (3 Year Avg)	17.9%	Baa	18% - 20%	Baa	18% - 20%	Baa
c) CFO pre-WC - Dividends / Debt (3 Year Avg)	14.5%	Baa	14% - 17%	Baa	14% - 17%	Baa
d) Debt / Capitalization (3 Year Avg)	48.8%	Baa	48% - 50%	Baa	48% - 50%	Baa
Rating:						
Scorecard-Indicated Outcome Before Notching Adjustment		Baa1				Baa1
HoldCo Structural Subordination Notching						
a) Scorecard-Indicated Outcome		Baa1				Baa1
b) Actual Rating Assigned		Baa1				Baa1

[1] All ratios are based on 'Adjusted' financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations

[2] As of 6/30/2021(L)

[3] This represents Moody's forward view; not the view of the issuer; and unless noted in the text, does not incorporate significant acquisitions and divestitures

Source: Moody's Financial Metrics

Appendix

Exhibit 7

Peer Comparison Table {1}

(In US millions)	Puget Sound Energy, Inc. Baaf (Stable)			Indianapolis Power & Light Company Baaf (Stable)			Cleco Power LLC A3 (Stable)			Avista Corp. (P)/Baaf (Stable)			PacifiCorp A3 (Stable)		
	FYE	FYE	LTM	FYE	FYE	FYE	FYE	FYE	LTM	FYE	FYE	LTM	FYE	FYE	LTM
	Dec-19	Dec-20	Jun-21	Dec-18	Dec-19	Dec-20	Dec-19	Dec-20	Mar-21	Dec-19	Dec-20	Jun-21	Dec-19	Dec-20	Mar-21
Revenue	3,401	3,326	3,558	1,451	1,482	1,353	1,168	1,032	1,066	1,346	1,322	1,364	5,068	5,341	5,377
CFO Pre-W/C	731	898	992	419	408	377	316	182	153	355	381	361	1,470	1,481	1,549
Total Debt	4,828	4,957	4,879	1,846	1,847	1,886	1,598	1,791	1,851	2,372	2,492	2,577	8,004	8,879	8,882
CFO Pre-W/C + Interest / Interest	3.9x	4.5x	4.9x	7.2x	5.5x	5.2x	4.8x	3.3x	2.9x	4.3x	4.6x	4.4x	4.6x	4.4x	4.5x
CFO Pre-W/C / Debt	15.1%	18.1%	20.3%	22.7%	22.1%	20.0%	19.8%	10.2%	8.3%	15.0%	15.3%	14.0%	18.4%	16.7%	17.4%
CFO Pre-W/C - Dividends / Debt	11.7%	15.1%	17.3%	14.9%	13.4%	12.1%	18.5%	10.2%	8.3%	10.6%	10.9%	9.6%	16.2%	16.7%	17.4%
Debt / Capitalization	49.3%	49.0%	47.4%	52.2%	51.9%	52.0%	40.5%	42.3%	42.9%	49.2%	48.7%	48.9%	42.3%	43.0%	42.6%

[1] All figures & ratios calculated using Moody's estimates & standard adjustments. FYE = Financial Year-End. LTM = Last Twelve Months. RUR* = Ratings under Review, where UPG = for upgrade and DNG = for downgrade
Source: Moody's Financial Metrics

Exhibit 8

Cash Flow and Credit Metrics [1]

CF Metrics	Dec-17	Dec-18	Dec-19	Dec-20	LTM Jun-21
As Adjusted					
FFO	1,120	982	951	997	1,080
+/- Other	-103	-54	-221	-99	-88
CFO Pre-WC	1,016	928	731	898	992
+/- ΔWC	105	81	-107	-58	-75
CFO	1,122	1,008	623	841	917
- Div	232	174	165	149	146
- Capex	994	1,023	919	878	888
FCF	-105	-188	-460	-186	-117
(CFO Pre-W/C) / Debt	24.0%	20.3%	15.1%	18.1%	20.3%
(CFO Pre-W/C - Dividends) / Debt	18.5%	16.5%	11.7%	15.1%	17.3%
FFO / Debt	26.4%	21.5%	19.7%	20.1%	22.1%
RCF / Debt	20.9%	17.7%	16.3%	17.1%	19.1%
Revenue	3,460	3,346	3,401	3,326	3,558
Interest Expense	232	242	254	256	258
Net Income	320	242	272	258	411
Total Assets	11,872	12,263	12,610	13,024	13,206
Total Liabilities	8,235	8,598	8,612	8,854	8,846
Total Equity	3,637	3,665	3,998	4,170	4,360

[1] All figures and ratios are calculated using Moody's estimates and standard adjustments. Period are Financial Year-end unless indicated. LTM = Last Twelve Months
Source: Moody's Financial Metrics

Ratings

Exhibit 9

Category	Moody's Rating
PUGET SOUND ENERGY, INC.	
Outlook	Stable
Issuer Rating	Baa1
First Mortgage Bonds	A2
Senior Secured	A2
Commercial Paper	P-2
PARENT: PUGET ENERGY, INC.	
Outlook	Stable
Issuer Rating	Baa3
Senior Secured	Baa3
PUGET SOUND ENERGY, INC. (OLD)	
Outlook	No Outlook
First Mortgage Bonds	A2
Senior Secured	A2
WASHINGTON NATURAL GAS COMPANY	
Outlook	No Outlook
Bkd First Mortgage Bonds	A2

Source: Moody's Investors Service

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REPORT NUMBER

1298755

CLIENT SERVICES

Americas	1-212-553-1653
Asia Pacific	852-3551-3077
Japan	81-3-5408-4100
EMEA	44-20-7772-5454

Carolina Water Service, Inc. of North Carolina
Cost of Capital as of August 31, 2022
(With WSIP)

Item	Ratios	Cost Rate	Weighted Cost Rate	Pre-Tax Cost of Capital
Long-Term Debt	50.00%	4.64%	2.32%	2.32%
Common Equity	50.00%	9.25%	4.63%	6.02%
Total	100.00%		6.95%	8.34%

Pre-Tax Interest Coverage 3.6