

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 [A]	Cost Rates [B]	Retention Factor [C]	Gross Revenue Effect [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	<u>100.00%</u>			<u>0.091153</u>
	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	<u>100.00%</u>			<u>0.091153</u>
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%)	<u>0.001300</u>	<u>0.001300</u>		
15	Balance (L12 - L13 - L14)	0.998700	0.998700		
16	State income tax (L12 x 2.5%)	<u>0.024968</u>	<u>0.024968</u>		
17	Balance (L15 - L16)	0.973732	0.973732		
18	Federal income tax (L17 x 21%)	<u>0.204484</u>	<u>0.204484</u>		
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-2a
Updated 09/19/2022

Water
Rate Base Return

CWS - NC Uniform

Line No.	Description	Capitalization Ratio [A]	Original Cost Base [B]	Embedded Cost [C]	Overall Cost Rate [D]	Net Operating Income [E]
Present Rates:						
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
Proposed Rates - Base Case:						
5	Debt	50.00%	36,188,863	4.64%	2.32%	\$1,679,163
6	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
Proposed Rates - WSIP Rate Year 1:						
8	Debt	50.00%	40,304,544	4.64%	2.32%	\$1,870,131
9	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
Proposed Rates - WSIP Rate Year 2:						
11	Debt	50.00%	44,627,386	4.64%	2.32%	\$2,070,711
12	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
Proposed Rates - WSIP Rate Year 3:						
14	Debt	50.00%	48,036,345	4.64%	2.32%	\$2,228,886
15	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

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Sewer
Rate Base Return

CWS - NC Uniform

Line No.	Description	Capitalization Ratio [A]	Original Cost Base [B]	Embedded Cost [C]	Overall Cost Rate [D]	Net Operating Income [E]
8	Present Rates:					
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	<u>100.00%</u>	<u>\$68,082,808</u>		<u>5.25%</u>	<u>\$3,573,653</u>
	Proposed Rates - Base Case:					
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	<u>100.00%</u>	<u>\$68,083,364</u>		<u>7.55%</u>	<u>\$5,136,890</u>
	Proposed Rates - WSIP Rate Year 1:					
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	<u>100.00%</u>	<u>\$75,544,568</u>		<u>7.67%</u>	<u>\$5,794,268</u>
	Proposed Rates - WSIP Rate Year 2:					
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	<u>100.00%</u>	<u>\$88,963,534</u>		<u>7.67%</u>	<u>\$6,823,503</u>
	Proposed Rates - WSIP Rate Year 3:					
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	<u>100.00%</u>	<u>#####</u>		<u>7.67%</u>	<u>\$7,757,435</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 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]

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-3a
Updated 09/19/2022

Water		CWS - NC Uniform								
Total Revenue Requirement		Retention Factors	Base Case	Base Case	WSIP	WSIP	WSIP	WSIP	WSIP	WSIP
Line No.	Description	[A]	Deductions	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
			[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]
<u>Operating revenue deductions:</u>										
1	Maintenance expenses		4,714,438		4,950,991		5,045,856		5,141,706	
2	General expenses		9,722,041		10,271,647		10,601,760		10,939,937	
3	Depreciation expense		4,035,064		4,257,285		4,514,717		4,709,887	
4	Amortization of CIAC		(733,560)		(733,560)		(733,560)		(733,560)	
5	Amortization of PAA		(117,358)		(117,358)		(117,358)		(117,358)	
6	Amortization of ITC		(265)		(265)		(265)		(265)	
7	TOTI		496,860		521,377		542,480		563,294	
8	Total operating revenue deductions	0.998700	18,117,219	18,140,802	19,150,117	19,175,045	19,853,630	19,879,473	20,503,641	20,530,331
<u>Net operating income for a return:</u>										
9	Debt service return	0.998700	\$1,679,163	1,681,349	\$1,870,131	1,872,565	\$2,070,711	2,073,406	\$2,228,886	2,231,788
10	Equity return	0.769248	\$3,781,736	4,916,147	\$4,312,586	5,606,236	\$4,775,130	6,207,530	\$5,139,889	6,681,706
11										
12										
13	Adjustment for revenues not subject to GRT	0.998700	0	0	0	0	0	0	0	0
14										
15	Revenue requirement			\$24,738,298		\$26,653,846		\$28,160,409		\$29,443,825
<u>Sewer</u>										
Total Revenue Requirement		CWS - NC Uniform								
Line No.	Description	Retention Factors	Base Case	Base Case	WSIP	WSIP	WSIP	WSIP	WSIP	WSIP
		[A]	Deductions	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
			[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]
<u>Operating revenue deductions:</u>										
16	Maintenance expenses		4,417,838		4,705,136		4,791,618		4,678,863	
17	General expenses		5,738,882		6,059,254		6,239,834		6,423,810	
18	Depreciation expense		3,456,269		3,667,345		3,999,605		4,341,053	
19	Amortization of CIAC		(625,462)		(625,462)		(625,462)		(625,462)	
20	Amortization of PAA		(17,433)		(17,433)		(17,433)		(17,433)	
21	Amortization of ITC		(254)		(254)		(254)		(254)	
22	TOTI		335,412		352,963		372,101		390,965	
23	Total operating revenue deductions	0.998700	13,305,252	13,322,571	14,141,549	14,159,957	14,760,010	14,779,222	15,191,542	15,211,317
<u>Net operating income for a return:</u>										
24	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
25	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
26										
27										
28	Adjustment for revenues not subject to GRT	0.998700	0	0	0	0	0	0	0	0
29										
30	Revenue requirement			\$19,528,620		\$21,168,879		\$23,033,138		\$24,594,944
31										

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-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