

CAROLINA WATER SERVICE, INC. OF NORTH  
CAROLINA  
NCUC FORM W-1  
RATE CASE INFORMATION REPORT  
DOCKET NO. W-354, SUB 400

Part – VI

Support to Items W1-28

CAROLINA WATER SERVICE, INC. OF NORTH CAROLIN  
NCUC FORM W-1  
RATE CASE INFORMATION REPORT  
W-354, SUB 400  
ITEM 28(a) and (b)

Supporting Calculations for Growth Assumptions in Schedule E

Carolina Water Service, Inc. of North Carolina

	Sub 364	Sub 384	Sub 400	WSIP Year 1	WSIP Year 2	WSIP Year 3
	TY Ended 03/31/19	TY Ended 03/31/21	TY Ended 03/31/22			
<b><u>Uniform Water</u></b>						
Water Customers - Res < 1"	20,537	21,046	21,293	21,489	21,687	21,886
Year over Year Growth rate		2.48%	1.17%	0.92%	0.92%	0.92%
Four Year Average Growth Rate			0.92%			
Projected Water Customers - Res < 1"			21,293	21,489	21,687	21,886
			Rate Year Average	21,293	21,391	21,787
Add: Echota			599	599	599	599
Expense Growth Rate				0.46%	0.92%	0.92%
<b><u>Uniform Water Availability</u></b>						
Water Customers - Res < 1"	2,563	2,473	2,433	2,402	2,372	2,342
Year over Year Growth rate		-3.51%	-1.62%	-1.27%	-1.27%	-1.27%
Four Year Average Growth Rate			-1.27%			
Projected Water Customers - Availability			2,433	2,402	2,372	2,342
			Rate Year Average	2,433	2,418	2,357
<b><u>Uniform Sewer</u></b>						
Sewer Customers - Res < 1"	11,242	11,158	11,325	11,346	11,367	11,388
Year over Year Growth rate		-0.75%	1.50%	0.18%	0.18%	0.18%
Four Year Average Growth Rate			0.18%			
Projected Sewer Customers - Res < 1"			11,325	11,346	11,367	11,388
			Rate Year Average	11,325	11,335	11,377
Add: Seven Devils			149	149	149	149
Expense Growth Rate				0.09%	0.18%	0.18%
<b><u>Uniform Sewer Availability</u></b>						
Sewer Customers - Res < 1"	305	265	248	236	225	215
Year over Year Growth rate		-13.11%	-6.42%	-4.67%	-4.67%	-4.67%
Four Year Average Growth Rate			-4.67%			
Projected Sewer Customers - Availability			248	236	225	215
			Rate Year Average	248	242	220

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

W1-28 (a)  
Page 2 of 3

Supporting Calculations for Growth Assumptions in Schedule E

Carolina Water Service, Inc. of North Carolina

	Sub 364	Sub 384	Sub 400	WSIP Year 1	WSIP Year 2	WSIP Year 3	
	TY Ended 03/31/19	TY Ended 03/31/21	TY Ended 03/31/22				
<b><u>BFFHTC Water</u></b>							
Water Customers - Res < 1"	3,201	3,272	3,309	3,337	3,365	3,393	
Year over Year Growth rate		2.22%	1.13%	0.84%	0.84%	0.84%	
Four Year Average Growth Rate			0.84%				
Projected Water Customers - Res < 1"			3,309	3,337	3,365	3,393	
			Rate Year Average	3,309	3,323	3,351	3,379
Expense Growth Rate				0.42%	0.84%	0.84%	
<b><u>BFFHTC Water Availability</u></b>							
	969	901	890	872	854	837	
Year over Year Growth rate		-7.02%	-1.22%	-2.04%	-2.04%	-2.04%	
Four Year Average Growth Rate			-2.04%				
Projected Water Customers - Availability			890	872	854	837	
			Rate Year Average	890	881	863	845
<b><u>BFFH Sewer</u></b>							
Sewer Customers - Res < 1"	2,828	2,955	2,993	3,037	3,081	3,126	
Year over Year Growth rate		4.49%	1.29%	1.46%	1.46%	1.46%	
Four Year Average Growth Rate			1.46%				
Projected Sewer Customers - Res < 1"			2,993	3,037	3,081	3,126	
			Rate Year Average	2,993	3,015	3,059	3,103
Expense Growth Rate				0.73%	1.46%	1.46%	
<b><u>BFFH Sewer Availability</u></b>							
	969	903	891	873	856	838	
Year over Year Growth rate		-6.81%	-1.33%	-2.01%	-2.01%	-2.01%	
Four Year Average Growth Rate			-2.01%				
Projected Sewer Customers - Availability			891	873	856	838	
			Rate Year Average	891	882	864	847

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

W1-28 (a)  
Page 3 of 3

**Supporting Calculations for Growth Assumptions in Schedule E**

**Carolina Water Service, Inc. of North Carolina**

**Notes:** CWSNC took the number of residential water customers with a meter under 1" in size used in the Sub 364, Sub 384, and the current Sub 400 rate case in order to develop a four year average growth rate. CWSNC applied this average residential connection growth rate to WSIP rate years in order to account for additional growth over the WSIP period. CWSNC used the mid year average for each WSIP period for determinign billing determinants with the assumption that the growth would track relatively linearly through the WSIP periods. Over this same period CWSNC has seen a slight increase in average consumption under the previously approved rate design. Subsequent to the order issued 4/08/22, CWSNC had a shift in its rate design placing a higher cost on the volumetric component. CWSNC is assuming the conservation efforts due to the changed rate design will offset in entirety any potential increases in average usage. For the CWSNC Uniform Rate group, CWSNC added the additional ERCs associated with the acquisition of Echota and Seven Devils. CWSNC took the same data points in order to develop an assumption in the reduction of availability customers that are connecting to the system.

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

W1-28 (b)  
Page 1 of 2

**Rate Design and Ratios**

**Carolina Water Service, Inc. of North Carolina**

<b>CWSNC Revenue -Water</b>	<b>Ratio</b>	<b>Sub 384 Approved</b>	<b>Current Revenue at Present Rates</b>	<b>Base Case Proposed Revenue</b>	<b>WSIP Year 1 Proposed Revenue</b>	<b>WSIP Year 2 Proposed Revenue</b>	<b>WSIP Year 3 Proposed Revenue</b>
CWSNC Water - Fixed	40%	8,714,065	9,009,368	9,797,875	10,598,911	11,025,291	11,449,256
CWSNC Water - Volumetric	60%	13,071,670	13,820,592	14,700,941	15,903,563	16,533,194	17,161,305
Service Revenue Request	100%	21,785,735	22,829,960	24,498,816	26,502,473	27,558,485	28,610,561
Increase				1,668,856	3,672,513	1,056,012	1,052,076

<b>CWSNC Revenue - Sewer</b>	<b>Ratio</b>	<b>Sub 384 Approved</b>	<b>Current Revenue at Present Rates</b>	<b>Base Case Proposed Revenue</b>	<b>WSIP Year 1 Proposed Revenue</b>	<b>WSIP Year 2 Proposed Revenue</b>	<b>WSIP Year 3 Proposed Revenue</b>
CWSNC Sewer - Fixed	60%	10,409,637	10,762,555	11,588,952	12,879,692	13,619,037	14,416,804
CWSNC Sewer - Volumetric	40%	6,941,692	6,782,607	7,722,701	8,586,393	9,077,881	9,609,432
Service Revenue Request	100%	17,351,329	17,545,162	19,311,653	21,466,085	22,696,918	24,026,236
Increase				1,766,491	3,920,924	1,230,833	1,329,317

<b>BFFHTC Revenue -Water</b>	<b>Ratio</b>	<b>Sub 384 Approved</b>	<b>Current Revenue at Present Rates</b>	<b>Base Case Proposed Revenue</b>	<b>WSIP Year 1 Proposed Revenue</b>	<b>WSIP Year 2 Proposed Revenue</b>	<b>WSIP Year 3 Proposed Revenue</b>
BFFHTC Water - Fixed	40%	737,512	745,057	847,454	997,087	1,054,845	1,096,535
BFFHTC Water - Volumetric	60%	1,105,110	1,136,055	1,270,409	1,497,632	1,582,265	1,643,889
Service Revenue Request	100%	1,842,622	1,881,112	2,117,863	2,494,719	2,637,110	2,740,424
Increase				236,751	613,607	142,391	103,315

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

W1-28 (b)  
Page 2 of 2

<b>BFFHTC Revenue - Sewer</b>	<b>Ratio</b>	<b>Sub 384 Approved</b>	<b>Current Revenue at Present Rates</b>	<b>Base Case Proposed Revenue</b>	<b>WSIP Year 1 Proposed Revenue</b>	<b>WSIP Year 2 Proposed Revenue</b>	<b>WSIP Year 3 Proposed Revenue</b>
BFFHTC Sewer - Fixed	99.847%	2,601,186	2,629,629	3,026,333	3,268,823	3,521,588	3,656,684
BFFHTC Sewer - Volumetric	0.153%	3,376	4,024	4,632	5,042	5,376	5,604
Service Revenue Request Increase	100.000%	2,604,562	2,633,654	3,030,965	3,273,865	3,526,964	3,662,288
				397,311	640,211	253,099	135,324

**Notes:** CWSNC has designed rates using the same rate design assumptions and principles as settled upon and approved in the Sub 384 rate case and is not proposing any variation to that rate design. For water customers this results in a 40% fixed to 60% volumetric component for revenues and for Uniform Sewer customers this results in a 60% fixed to 40% volumetric component for revenues. CWSNC has consistently applied this rate design through all periods of the WSIP as well as the base case rate design.