

STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH

CAROLINA WATER SERVICE, INC. OF NORTH CAROLINA
DOCKET NO. W-354, SUB 356

TESTIMONY OF LINDSAY QUANT
ON BEHALF OF THE PUBLIC STAFF

SEPTEMBER 19, 2017

1 Q. PLEASE STATE FOR THE RECORD YOUR NAME, BUSINESS
2 ADDRESS, AND PRESENT POSITION.

3 A. My name is Lindsay Quant. My business address is 430 North
4 Salisbury Street, Dobbs Building, Raleigh, North Carolina. I am a
5 Utilities Engineer with the Public Staff's Water, Sewer &
6 Communications Division.

7

8 Q. BRIEFLY STATE YOUR QUALIFICATIONS AND EXPERIENCE
9 RELATING TO YOUR PRESENT POSITION WITH THE PUBLIC
10 STAFF.

11 A. I graduated from North Carolina State University, earning a Bachelor
12 of Science Degree in Civil Engineering. I am a licensed Professional
13 Engineer (State of North Carolina #042110). I am also certified as a
14 B-Well Operator (#130281) by the North Carolina Operators
15 Certification Board. I worked for the North Carolina Department of
16 Environmental Quality (NCDEQ), Public Water Supply Section for four

1 years and then joined the Public Staff in December 2016. I have
2 presented recommendations in water and sewer rate case
3 proceedings, new franchise applications, and other matters relating to
4 water and sewer utility regulation before the Commission.

5

6 **Q. WHAT ARE YOUR DUTIES IN YOUR PRESENT POSITION?**

7 A. My duties with the Public Staff are to monitor the operations of
8 regulated water and sewer utilities with regard to rates and service.
9 Included in these duties are field investigations to review, evaluate,
10 and recommend changes, when needed, in the design, construction,
11 and operations of regulated water and sewer utilities; presentation of
12 expert testimony in formal hearings; and presentation of information,
13 data, and recommendations to the Commission.

14

15 **Q. PLEASE DESCRIBE THE SCOPE OF YOUR INVESTIGATION IN**
16 **THIS CASE.**

17 A. On March 31, 2017, Carolina Water Service, Inc. of North Carolina
18 (CWSNC or Company) filed an application with the Commission to
19 increase its rates for providing water and sewer utility service in all of
20 its service areas in North Carolina except the Corolla Light and
21 Monteray Shores Service Area and the Elk River Development. I have
22 assisted Public Staff Engineer Gina Casselberry in review of customer
23 complaints, contact with the Department of Environmental Quality

1 (DEQ), Public Water Supply Section (PWSS), and review of Company
2 records. I have also assisted Public Staff Accountant Sonja Johnson
3 with review of expenses.

4
5 **Q. HAVE YOU RECOMMENDED ANY ADJUSTMENTS TO**
6 **EXPENSES RELATED TO WATER AND SEWER OPERATIONS?**

7 **A.** Yes, I have provided Public Staff Accountant Johnson with
8 recommendations for adjustments to testing expenses, chemical
9 expenses, purchased sewer and permit fees.

10
11 TESTING EXPENSES

12 My recommendation for testing expenses reflects new testing
13 requirements, changes to the number or frequency of each test, and
14 current testing costs, represented over the required frequency
15 (monthly, annually, and every three, six, or nine years) for each test
16 under the Safe Drinking Water Act and CWSNC's wastewater
17 permits. For CWSNC's uniform rate systems, I recommend testing
18 expenses of \$168,248 for water operations and \$266,405 for sewer
19 operations. For Bradfield Farms and Fairfield Harbor, I recommend
20 testing expenses of \$5,557 for water operations and \$21,922 for
21 sewer operations. My calculations are shown in Quant Exhibit No.
22 1.

23

CHEMICAL EXPENSES

Based on Company records and invoices, I recommend chemical expenses of \$243,711 for water operations and \$309,149 for sewer operations for CWSNC's uniform rate systems. I recommend chemical expenses of \$35,438 for water operations and \$29,611 for sewer operations for Fairfield Harbor and Bradfield Farms. CWSNC allocated their costs for water and sewer chemicals by equivalent residential connection (ERC). The ERC is based on meter size. The recommended total amount of chemical expense did not change from the total amount provided by the Company but the expenses have been redistributed. My calculations and recommendations reallocated those amounts to directly correspond to the specific water or sewer operation.

PURCHASED SEWER TREATMENT

Based on invoices provided by the Company, I have updated purchased sewer treatment to reflect gallons treated for the twelve months ended December 31, 2016. As of June 2016, Ridges at Mountain Harbour purchases 100 percent of its sewer treatment. I estimated an amount for 12 months based on the invoices provided over the past six months of operation. I also updated purchased sewer treatment for White Oak Plantation to reflect the Johnston County Public Utilities Department current rates. Johnston County

1 Public Utilities notified the Company of the rate increase in a letter
2 dated April 6, 2017. I recommend \$589,536 for purchased sewer
3 treatment. My calculations are shown in Quant Exhibit No. 2.

4
5 PERMIT FEES

6 Based on Company records and invoices, I recommend permit fees
7 of \$62,430 for water operations and \$53,362 for sewer operations for
8 CWSNC's uniform rate systems. I recommend permit fees of \$2,330
9 for water operations and \$3,498 for sewer operations for Fairfield
10 Harbor and Bradfield Farms. CWSNC allocated their costs for water
11 and sewer permit fees by ERC. My calculations and
12 recommendations reallocated those amounts to directly correspond
13 to the system specific water or sewer operation. My calculations are
14 shown in Quant Exhibit No. 3.

15
16 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

17 **A.** Yes, it does.

Drinking Water Testing

Carolina Water Service Areas (less Fairfield Harbour & Bradfield)

Water Analysis	# of Samples Required	Frequency	Tests Per Year	Cost Per Test	Annual Cost
Bacteriological	14	Monthly	168.00	\$20.00	\$3,360
Bacteriological	12	Monthly	144.00	\$21.00	\$3,024
Bacteriological	40	Monthly	480.00	\$22.00	\$10,560
Bacteriological	34	Monthly	408.00	\$25.00	\$10,200
Bacteriological	15	Monthly	180.00	\$26.25	\$4,725
Bacteriological	7	Monthly	84.00	\$35.00	\$2,940
Bacteriological	7	Monthly	84.00	\$50.00	\$4,200
HPC	4	Monthly	48.00	\$50.00	\$2,400
DBP stage 2	56	Every 3 yrs	18.67	\$153.61	\$2,867
DBP stage 2	44	Annual	44.00	\$153.61	\$6,759
DBP stage 2	26	Quarterly	104.00	\$153.61	\$15,975
Lead/Copper	730	Every 3 yrs	243.33	\$24.25	\$5,901
Lead/Copper	5	Annually	5.00	\$24.25	\$121
Asbestos	51	Every 9 yrs	5.67	\$123.00	\$697
Inorganics	220	Every 3 yrs	73.33	\$214.62	\$15,739
Chloride	2	Annual	2.00	\$13.00	\$26
Nitrate	212	Annual	212.00	\$13.00	\$2,756
Nitrate	8	Quarterly	32.00	\$13.00	\$416
VOC	190	Every 3 yrs	63.33	\$105.10	\$6,656
VOC	18	Annually	18.00	\$105.10	\$1,892
VOC	12	Quarterly	48.00	\$105.10	\$5,045
SOC - Complete	241	Every 3 yrs	80.33	\$613.72	\$49,302
SOC - Complete	1	annually	1.00	\$613.72	\$614
SOC (505 & 506)	5	annually	5.00	\$86.73	\$434
SOC (550)	1	Quarterly	4.00	\$86.73	\$347
Rads-Gross Alpha	171	Every 9 yrs	19.00	\$55.00	\$1,045
Rads-Gross Alpha	35	Every 6 yrs	5.83	\$55.00	\$321
Rads-Gross Alpha	5	Every 3 yrs	1.67	\$55.00	\$92
Rads-Gross Alpha	8	annually	8.00	\$55.00	\$440
Rads-Uranium	141	Every 9 yrs	15.67	\$50.00	\$783
Rads-Uranium	61	Every 6 yrs	10.17	\$50.00	\$508
Rads-Uranium	9	Every 3 yrs	3.00	\$50.00	\$150
Rads-Uranium	6	annually	6.00	\$50.00	\$300
Rads-Uranium	2	Quarterly	8.00	\$50.00	\$400
Combined Rad (228 & 226)	162	Every 9 yrs	18.00	\$170.00	\$3,060
Combined Rad (228 & 226)	32	Every 6 yrs	5.33	\$170.00	\$907
Combined Rad (228 & 226)	13	Every 3 yrs	4.33	\$170.00	\$737
Combined Rad (228 & 226)	11	annually	11.00	\$170.00	\$1,870
Combined Rad (228 & 226)	1	Quarterly	4.00	\$170.00	\$680

Total (All systems on Stage 2 DBP monitoring): \$168,248

Fairfield Harbour

Water Analysis	# of Samples Required	Frequency	Tests Per Year	Cost Per Test	Annual Cost
Bacteriological	5	Monthly	60.00	\$22.00	\$1,320
DBP stage 2	2	Annual	2.00	\$153.61	\$307
Lead/Copper	20	Every 3 yrs	6.67	\$24.25	\$162
Asbestos	1	Every 9 yrs	0.11	\$123.00	\$14
Inorganics	1	Every 3 yrs	0.33	\$214.62	\$72
Chloride	3	Annual	3.00	\$13.00	\$39
Nitrate	1	Annual	1.00	\$13.00	\$13
VOC	1	Every 3 yrs	0.33	\$105.10	\$35
SOC - Complete	2	Every 3 yrs	0.67	\$613.72	\$409
Rads-Gross Alpha	1	Every 9 yrs	0.11	\$55.00	\$6
Rads-Uranium	1	Every 9 yrs	0.11	\$50.00	\$6
Combined Rad (228 & 226)	1	Every 9 yrs	0.11	\$170.00	\$19

Total Fairfield Harbour: \$2,401

Bradfield Farms

Water Analysis	# of Samples Required	Frequency	Tests Per Year	Cost Per Test	Annual Cost
Bacteriological	3	Monthly	36.00	\$21.00	\$756
DBP stage 2	1	Annual	1.00	\$153.61	\$154
Lead/Copper	10	Every 3 yrs	3.33	\$24.25	\$81
Asbestos	1	Every 9 yrs	0.11	\$123.00	\$14
Inorganics	6	Every 3 yrs	2.00	\$214.62	\$429
Nitrate	6	Annual	6.00	\$13.00	\$78
VOC	6	Every 3 yrs	2.00	\$105.10	\$210
SOC - Complete	6	Every 3 yrs	2.00	\$613.72	\$1,227
Rads-Gross Alpha	4	Every 9 yrs	0.44	\$55.00	\$24
Rads-Gross Alpha	2	Every 6 yrs	0.33	\$55.00	\$18
Rads-Uranium	3	Every 9 yrs	0.33	\$50.00	\$17
Rads-Uranium	3	Every 6 yrs	0.50	\$50.00	\$25
Combined Rad (228 & 226)	5	Every 9 yrs	0.56	\$170.00	\$94
Combined Rad (228 & 226)	1	Every 6 yrs	0.17	\$170.00	\$28

Total Bradfield Farms: \$3,156

	Testing Costs 10	# of Samples Required	Frequency	Tests Per Year	Cost Per Test	Annual Cost
Abington	Wastewater Analysis					
	BOD	1	Weekly	52	\$ 25.00	\$ 1,300
	Total Suspended Solids (TSS)	1	Weekly	52	\$ 15.00	\$ 780
	Ammonia Nitrogen (NH ₃ as N)	1	Weekly	52	\$ 15.00	\$ 780
	Fecal Coliform	1	Weekly	52	\$ 10.00	\$ 520
	Total Nitrogen (NN/TKN) (Qtrly)	4	Annually	4	\$ 35.00	\$ 140
Amherst	Total Phosphorus (Qtrly)	4	Annually	4	\$ 15.00	\$ 60
	BOD	1	Weekly	52	\$ 22.31	\$ 1,160
	Total Suspended Solids (TSS)	1	Weekly	52	\$ 12.61	\$ 656
	Ammonia Nitrogen (NH ₃ as N)	1	Weekly	52	\$ 17.46	\$ 908
	Fecal Coliform	1	Weekly	52	\$ 18.43	\$ 958
	Total Nitrogen (NN/TKN)	2	Monthly	24	\$ 33.95	\$ 815
Ashley Hills	Total Phosphorus	2	Monthly	24	\$ 17.46	\$ 419
	Sludge Testing (for land application)	1	Annually	1	\$ 1,953.34	\$ 1,953
	BOD (3/week effluent)	3	Weekly	156	\$ 22.31	\$ 3,480
	BOD (1 @ each of 3 plants once per month)	3	Monthly	36	\$ 22.31	\$ 803
	Total Suspended Solids (TSS)	3	Weekly	156	\$ 12.61	\$ 1,967
	Ammonia Nitrogen (NH ₃ as N)	3	Weekly	156	\$ 17.46	\$ 2,724
Bear Paw	Fecal Coliform	3	Weekly	156	\$ 18.43	\$ 2,875
	Total Nitrogen (NN/TKN)	1	Weekly	52	\$ 33.95	\$ 1,765
	Total Phosphorus	2	Monthly	24	\$ 17.46	\$ 419
	BOD	1	Weekly	52	\$ 25.00	\$ 1,300
	Total Suspended Solids (TSS)	1	Weekly	52	\$ 15.00	\$ 780
	Ammonia Nitrogen (NH ₃ as N)	2	Monthly	24	\$ 20.00	\$ 480
Belvedere	Total Nitrogen (NN/TKN)	2	Annually	2	\$ 50.00	\$ 100
	Total Phosphorus	2	Annually	2	\$ 30.00	\$ 60
	WWTF Effluent: BOD (2/wk)	2	Weekly	104	\$ 25.00	\$ 2,600
	WWTF Effluent: Fecal Coliform (2/wk)	2	Weekly	104	\$ 25.00	\$ 2,600
	WWTF Effluent: Ammonia Nitrogen (2/wk)	2	Weekly	104	\$ 20.00	\$ 2,080
	WWTF Effluent: Total Nitrogen (NN/TKN) (2/wk)	2	Weekly	104	\$ 55.00	\$ 5,720
Belvedere	WWTF Effluent: Total Phosphorus (2/wk)	2	Weekly	104	\$ 20.00	\$ 2,080
	WWTF Effluent: TSS (2/wk)	2	Weekly	104	\$ 20.00	\$ 2,080
	WWTF Effluent: Chloride (3/yr)	3	Annually	3	\$ 20.00	\$ 60
	WWTF Effluent: TDS (3/yr)	3	Annually	3	\$ 20.00	\$ 60
	GWLS Eff: BOD (1/wk)	1	Weekly	52	\$ 25.00	\$ 1,300
	GWLS Eff: Fecal Coliform (1/wk)	1	Weekly	52	\$ 25.00	\$ 1,300
Belvedere	GWLS Eff: Ammonia Nitrogen (1/wk)	1	Weekly	52	\$ 20.00	\$ 1,040
	GWLS Eff: Total Nitrogen (NN/TKN) (1/wk)	1	Weekly	52	\$ 55.00	\$ 2,860
	GWLS Eff: Total Phosphorus (1/wk)	1	Weekly	52	\$ 20.00	\$ 1,040
	GWLS Eff: Chloride (3/yr)	3	Annually	3	\$ 20.00	\$ 60
	GWLS Eff: TDS (3/yr)	3	Annually	3	\$ 20.00	\$ 60
	Influent: BOD (3/yr)	3	Annually	3	\$ 25.00	\$ 75
Belvedere	Influent: Ammonia Nitrogen (3/yr)	3	Annually	3	\$ 20.00	\$ 60
	Influent: Total Nitrogen (NN/TKN) (3/yr)	3	Annually	3	\$ 55.00	\$ 165
	Influent: Total Phosphorus (3/yr)	3	Annually	3	\$ 20.00	\$ 60
	Influent: Chloride (3/yr)	3	Annually	3	\$ 20.00	\$ 60
	Influent: TDS (3/yr)	3	Annually	3	\$ 20.00	\$ 60
	Lab (Env Chemists) Sample Pick up fee (2/wk)	2	Weekly	104	\$ 10.00	\$ 1,040
Bent Creek	Monitoring Wells (9 total - 3/yr) Depth, Ammonia Nitrogen, Gallons, Odor, TDS, Temp, Chloride, pH, Total Phosphorus, Fecal Coliform, Nitrate Nitrogen	27	Annually	27	\$ 200.00	\$ 5,400
	BOD	1	Weekly	52	\$ 25.00	\$ 1,300
	Total Suspended Solids (TSS)	1	Weekly	52	\$ 10.00	\$ 520
	Ammonia Nitrogen (NH ₃ as N)	1	Weekly	52	\$ 18.00	\$ 936
	Fecal Coliform	1	Weekly	52	\$ 25.00	\$ 1,300
	Total Nitrogen (NN/TKN)	2	Annually	2	\$ 40.00	\$ 80
Brandywine Bay	Total Phosphorus	2	Annually	2	\$ 18.00	\$ 36
	Effluent: BOD (2/mth)	2	Monthly	24	\$ 25.00	\$ 600
	Effluent: Fecal Coliform (2/mth)	2	Monthly	24	\$ 25.00	\$ 600
	Effluent: Ammonia Nitrogen (2/mth)	2	Monthly	24	\$ 20.00	\$ 480
	Effluent: Nitrate Nitrogen (2/mth)	2	Monthly	24	\$ 25.00	\$ 600
	Effluent: TSS (2/mth)	2	Monthly	24	\$ 20.00	\$ 480
Brandywine Bay	Effluent: Chloride (3/yr)	3	Annually	3	\$ 20.00	\$ 60
	Effluent: TOC (3/yr)	3	Annually	3	\$ 20.00	\$ 60
	Effluent: TDS (3/yr)	3	Annually	3	\$ 20.00	\$ 60
	Influent: Chloride (3/yr)	3	Annually	3	\$ 20.00	\$ 60
	Influent: TOC (3/yr)	3	Annually	3	\$ 20.00	\$ 60
	Influent: TDS (3/yr)	3	Annually	3	\$ 20.00	\$ 60
Carolina Pines	Monitoring Wells (6 total - 3/yr) Depth, Gallons, Temp, pH, Color, Odor, TDS, Chloride, Total Phosphorus, TOC, Fecal Coliform, Nitrate Nitrogen	18	Annually	18	\$ 200.00	\$ 3,600
	VOC (Monitoring Wells; 6 total - 1/yr)	6	Annually	6	\$ 110.00	\$ 660
	Lab (Env Chemists) Sample Pick up fee	2	Monthly	24	\$ 10.00	\$ 240
	Field Lab Certification Testing (July)	1	Annually	1	\$ 653.63	\$ 654
	Field Lab Certification Testing (Sept) Low level TRC only	1	Annually	1	\$ 225.56	\$ 226
	Sludge Testing	1	Annually	1	\$ 375.00	\$ 375
Carolina Pines	BOD	1	Weekly	52	\$ 22.31	\$ 1,160
	Total Suspended Solids (TSS)	1	Weekly	52	\$ 12.61	\$ 656

	Testing Costs 10	# of Samples Required	Frequency	Tests Per Year	Cost Per Test	Annual Cost
	Wastewater Analysis					
	Ammonia Nitrogen (NH ₃ as N)	1	Weekly	52	\$ 17.46	\$ 908
	Total Nitrogen (NN/TKN)	1	Weekly	52	\$ 33.95	\$ 1,765
	Total Phosphorus	1	Weekly	52	\$ 17.46	\$ 908
	Enterococci	1	Weekly	52	\$ 32.01	\$ 1,665
	Sludge Testing (for land application)	1	Annually	1	\$ 375.00	\$ 375
Danby/Lamplighter South	BOD	1	Weekly	52	\$ 38.00	\$ 1,976
	Total Suspended Solids (TSS)	1	Weekly	52	\$ 11.00	\$ 572
	Ammonia Nitrogen (NH ₃ as N)	1	Weekly	52	\$ 28.00	\$ 1,456
	E. Coli	2	Weekly	104	\$ 35.00	\$ 3,640
	Total Phosphorus (permit change from 1/wk to 1/mth)	1	Monthly	12	\$ 28.00	\$ 336
	Lab (Prism) Environmental Fee for Sample Disposal	1	Weekly	52	\$ 3.00	\$ 156
	Field Lab Certification (SC)	1	Annually	1	\$ 360.64	\$ 361
	Instream Biological Assessment	1	Every 5 yrs	0.2	\$ 1,680.00	\$ 336
Hemby	BOD	1	Weekly	52	\$ 20.00	\$ 1,040
	Total Suspended Solids (TSS)	1	Weekly	52	\$ 12.00	\$ 624
	Ammonia Nitrogen (NH ₃ as N)	1	Weekly	52	\$ 19.00	\$ 988
	Fecal Coliform (Effluent, Upstream & Downstream)	3	Weekly	156	\$ 25.00	\$ 3,900
	Total Nitrogen (NN/TKN) (Qtrly)	4	Annually	4	\$ 52.00	\$ 208
	Total Phosphorus (Qtrly)	4	Annually	4	\$ 26.00	\$ 104
	Field Lab Certification Testing	1	Annually	1	\$ 585.87	\$ 586
Hestron Park	Effluent: BOD (1/mth)	1	Monthly	12	\$ 25.00	\$ 300
	Effluent: Fecal Coliform (1/mth)	1	Monthly	12	\$ 25.00	\$ 300
	Effluent: Ammonia Nitrogen (1/mth)	1	Monthly	12	\$ 20.00	\$ 240
	Effluent: Nitrate Nitrogen (1/mth)	1	Monthly	12	\$ 25.00	\$ 300
	Effluent: TSS (1/mth)	1	Monthly	12	\$ 20.00	\$ 240
	Effluent: TDS (3/yr)	3	Annually	36	\$ 20.00	\$ 720
	Effluent: Chloride (3/yr)	3	Annually	36	\$ 20.00	\$ 720
	Influent: TDS (3/yr)	3	Annually	3	\$ 20.00	\$ 60
	Influent: Chloride (3/yr)	3	Annually	3	\$ 20.00	\$ 60
	Monitoring Wells (5 total - 3/yr) Depth, Gallons, Temp, pH, Odor, TDS, Chloride, TOC, Fecal Coliform, Nitrate Nitrogen, Ammonia Nitrogen (Mar, Jul, Nov)	15	Annually	15	\$ 215.00	\$ 3,225
	VOC (Monitoring wells; 5 total - 1/yr November)	5	Annually	5	\$ 110.00	\$ 550
	Sludge Testing (for land application)	1	Annually	1	\$ 375.00	\$ 375
	Lab (Env Chemists) Sample Pick up fee	1	Monthly	12	\$ 10.00	\$ 120
Hound Ears	BOD	1	Weekly	52	\$ 16.00	\$ 832
	Total Suspended Solids (TSS)	1	Weekly	52	\$ 9.60	\$ 499
	Ammonia Nitrogen (NH ₃ as N)	1	Weekly	52	\$ 14.40	\$ 749
	Fecal Coliform	1	Weekly	52	\$ 13.60	\$ 707
	Oil and Grease (2/mth)	2	Monthly	24	\$ 35.00	\$ 840
	Total Kjeldahl Nitrogen (TKN)	2	Annually	2	\$ 44.00	\$ 88
	Total Phosphorus	2	Annually	2	\$ 35.00	\$ 70
Kings Grant (Raleigh)	BOD	1	Weekly	52	\$ 22.31	\$ 1,160
	Total Suspended Solids (TSS)	1	Weekly	52	\$ 12.61	\$ 656
	Ammonia Nitrogen (NH ₃ as N)	1	Weekly	52	\$ 17.46	\$ 908
	Fecal Coliform	1	Weekly	52	\$ 18.43	\$ 958
	Total Nitrogen (NN/TKN)	1	Weekly	52	\$ 33.95	\$ 1,765
	Total Phosphorus	2	Monthly	24	\$ 17.46	\$ 419
	Chronic Toxicity (Qtrly)	4	Annually	4	\$ 400.00	\$ 1,600
	Sludge Testing (for land application)	1	Annually	1	\$ 1,953.34	\$ 1,953
Olde Point	Effluent: BOD (2/mth Apr-Oct)	2	Monthly	14	\$ 25.00	\$ 350
	Effluent: BOD (1/mth Nov-Mar)	1	Monthly	5	\$ 25.00	\$ 125
	Effluent: TSS (2/mth Apr-Oct)	2	Monthly	14	\$ 20.00	\$ 280
	Effluent: TSS (1/mth Nov-Mar)	1	Monthly	5	\$ 20.00	\$ 100
	Effluent: Ammonia Nitrogen (2/mth Apr-Oct)	2	Monthly	14	\$ 20.00	\$ 280
	Effluent: Ammonia Nitrogen (1/mth Nov-Mar)	1	Monthly	5	\$ 20.00	\$ 100
	Effluent: Fecal Coliform (2/mth Apr-Oct)	2	Monthly	14	\$ 25.00	\$ 350
	Effluent: Fecal Coliform (1/mth Nov-Mar)	1	Monthly	5	\$ 25.00	\$ 125
	Effluent: Chloride (3/yr)	3	Annually	3	\$ 20.00	\$ 60
	Effluent: Nitrate Nitrogen (3/yr)	3	Annually	3	\$ 25.00	\$ 75
	Effluent: TDS (3/yr)	3	Annually	3	\$ 20.00	\$ 60
	Effluent: TOC (3/yr)	3	Annually	3	\$ 20.00	\$ 60
	Influent: Chloride (3/yr)	3	Annually	3	\$ 20.00	\$ 60
	Influent: Nitrate Nitrogen (3/yr)	3	Annually	3	\$ 25.00	\$ 75
	Influent: TDS (3/yr)	3	Annually	3	\$ 20.00	\$ 60
	Influent: TOC (3/yr)	3	Annually	3	\$ 20.00	\$ 60
	Influent: Enterococci (3/yr)	3	Annually	3	\$ 40.00	\$ 120
	Monitoring Wells (3 total - 3/yr) Depth, Gallons, Temp, pH, Color, Odor, TDS, Chloride, Orthophosphate, TOC, Fecal Coliform, Nitrate Nitrogen, Ammonia Nitrogen	9	Annually	9	\$ 220.00	\$ 1,980
	VOC (Monitoring wells; 3 total - 1/yr)	3	Annually	3	\$ 110.00	\$ 330
	Sludge Testing (for land application)	1	Annually	1	\$ 375.00	\$ 375
The Harbour/The Point	Chloride (1/mth per discharge)	3	Monthly	36	\$ 19.80	\$ 713
	Lead (1/mth per discharge)	3	Monthly	36	\$ 11.00	\$ 396
	Manganese (1/mth per discharge)	3	Monthly	36	\$ 11.00	\$ 396
	Turbidity (1/mth per discharge)	3	Monthly	36	\$ 19.80	\$ 713

	Testing Costs 10	# of Samples Required	Frequency	Tests Per Year	Cost Per Test	Annual Cost
	Wastewater Analysis					
	TDS (2/mth per discharge)	6	Monthly	72	\$ 11.00	\$ 792
	TSS (2/mth per discharge)	6	Monthly	72	\$ 11.00	\$ 792
	Processing & Disposal Fee (2/month per discharge)	6	Monthly	72	\$ 3.00	\$ 216
	Copper (1/qtr per discharge)	12	Annually	12	\$ 22.00	\$ 264
	Iron (1/qtr per discharge)	12	Annually	12	\$ 22.00	\$ 264
	Zinc (1/qtr per discharge)	12	Annually	12	\$ 11.00	\$ 132
	Chronic Toxicity (1/qtr per discharge)					
	(cost includes \$50/sample courier fee)	12	Annually	12	\$ 484.50	\$ 5,814
Queens Harbor	BOD	1	Weekly	52	\$ 20.00	\$ 1,040
	Total Suspended Solids (TSS)	1	Weekly	52	\$ 12.00	\$ 624
	Ammonia Nitrogen (NH ₃ as N)	1	Weekly	52	\$ 19.00	\$ 988
	Fecal Coliform	1	Weekly	52	\$ 20.00	\$ 1,040
	Total Nitrogen (NN/TKN) (Qtrly)	4	Annually	4	\$ 52.00	\$ 208
	Total Phosphorus (Qtrly)	4	Annually	4	\$ 26.00	\$ 104
	Sample Pick-up Fee (Weekly)	1	Weekly	52	\$ 15.00	\$ 780
Regalwood	BOD	3	Weekly	156		
	Total Suspended Solids (TSS)	3	Weekly	156		
	Ammonia Nitrogen (NH ₃ as N)	1	Weekly	52	\$ 1,200.00	\$ 14,400
	Enterococci	3	Weekly	156		
	Total Nitrogen (NN/TKN) (Qtrly)	4	Annually	4		
	Total Phosphorus	1	Weekly	52		
	Sludge Testing (for land application)	1	Annually	1	\$ 375.00	\$ 375
River Pointe Estates	BOD	1	Weekly	52	\$ 20.00	\$ 1,040
	Total Suspended Solids (TSS)	1	Weekly	52	\$ 12.00	\$ 624
	Ammonia Nitrogen (NH ₃ as N)	2	Monthly	24	\$ 19.00	\$ 456
	Fecal Coliform	1	Weekly	52	\$ 20.00	\$ 1,040
	Total Nitrogen (NN/TKN) (Qtrly)	4	Annually	4	\$ 52.00	\$ 208
	Total Phosphorus (Qtrly)	4	Annually	4	\$ 26.00	\$ 104
Saddlewood	BOD	1	Weekly	52	\$ 20.00	\$ 1,040
	Total Suspended Solids (TSS)	1	Weekly	52	\$ 12.00	\$ 624
	Ammonia Nitrogen (NH ₃ as N)	1	Weekly	52	\$ 19.00	\$ 988
	Fecal Coliform	1	Weekly	52	\$ 20.00	\$ 1,040
Sugar Mountain	BOD	3	Weekly	156	\$ 16.00	\$ 2,496
	Total Suspended Solids (TSS)	3	Weekly	156	\$ 9.60	\$ 1,498
	Ammonia Nitrogen (NH ₃ as N)	3	Weekly	156	\$ 14.40	\$ 2,246
	Fecal Coliform	3	Weekly	156	\$ 13.60	\$ 2,122
	Total Nitrogen (NN/TKN) (2/yr)	2	Annually	2	\$ 44.00	\$ 88
	Total Phosphorus (2/yr)	2	Annually	2	\$ 35.00	\$ 70
	Chronic Toxicity (Qtrly)	4	Annually	4	\$ 375.00	\$ 1,500
	Field Lab Certification Testing	1	Annually	1	\$ 327.60	\$ 328
White Oak Est	BOD	3	Weekly	156		
	Total Suspended Solids (TSS)	3	Weekly	156		
	Ammonia Nitrogen (NH ₃ as N)	1	Weekly	52	\$ 1,200.00	\$ 14,400
	Enterococci	3	Weekly	156		
	Total Nitrogen (NN/TKN) (Qtrly)	4	Annually	4		
	Total Phosphorus	1	Weekly	52		
	Sludge Testing (for land application)	1	Annually	1	\$ 375.00	\$ 375
Willowbrook	BOD	1	Weekly	52	\$ 22.31	\$ 1,160
	Total Suspended Solids (TSS)	1	Weekly	52	\$ 12.61	\$ 656
	Ammonia Nitrogen (NH ₃ as N)	1	Weekly	52	\$ 17.46	\$ 908
	Fecal Coliform	1	Weekly	52	\$ 18.43	\$ 958
	Total Nitrogen (NN/TKN)	1	Weekly	52	\$ 33.95	\$ 1,765
	Total Phosphorus	2	Monthly	24	\$ 17.46	\$ 419
	Chronic Toxicity (Qtrly)	4	Annually	4	\$ 400.00	\$ 1,600
	Gross Alpha (Qtrly)	4	Annually	4	\$ 450.00	\$ 1,800
	Combined Radium (Qtrly)					
	Gross Beta (Qtrly)					
	Uranium (Qtrly)					
	Sludge Testing (for land application)	1	Annually	1	\$ 1,932.00	\$ 1,932
Wolf Laurel	BOD	1	Weekly	52	\$ 16.00	\$ 832
	Total Suspended Solids (TSS)	1	Weekly	52	\$ 9.60	\$ 499
	Ammonia Nitrogen (NH ₃ as N)	1	Weekly	52	\$ 14.40	\$ 749
	Fecal Coliform	1	Weekly	52	\$ 13.60	\$ 707
	Turbidity	1	Weekly	52	\$ 10.00	\$ 520
					Total 182	\$ 198,111
Nags Head	Effluent: BOD (1/wk, May-Aug)	1	Weekly	16	\$ 25.00	\$ 400
	Effluent: BOD (2/mth) Sep-Apr	2	Monthly	16	\$ 25.00	\$ 400
	Effluent: Fecal Coliform (1/wk) May-Aug	1	Weekly	16	\$ 25.00	\$ 400
	Effluent: Fecal Coliform (2/mth) Sep-Apr	2	Monthly	16	\$ 25.00	\$ 400
	Effluent: Ammonia Nitrogen (1/wk) May-Aug	1	Weekly	16	\$ 20.00	\$ 320
	Effluent: Ammonia Nitrogen (2/mth) Sep-Apr	2	Monthly	16	\$ 20.00	\$ 320
	Effluent: Total Nitrogen (NN/TKN) (1/wk) May-Aug	1	Weekly	16	\$ 50.00	\$ 800
	Effluent: Total Nitrogen (NN/TKN) (2/mth) Sep-Apr	2	Monthly	16	\$ 50.00	\$ 800
	Effluent: TSS (1/wk) May-Aug	1	Weekly	16	\$ 20.00	\$ 320
	Effluent: TSS (2/mth) Sep-Apr	2	Monthly	16	\$ 20.00	\$ 320
	Effluent: Total Phosphorus (1/wk) May-Aug	1	Weekly	16	\$ 25.00	\$ 400

	Testing Costs 10	# of Samples Required	Frequency	Tests Per Year	Cost Per Test	Annual Cost
	Wastewater Analysis					
	Effluent: Total Phosphorus (2/mth) Sep-Apr	2	Monthly	16	\$ 25.00	\$ 400
	Effluent: Chloride (3/yr)	3	Annually	3	\$ 20.00	\$ 60
	Effluent: TDS (3/yr)	3	Annually	3	\$ 20.00	\$ 60
	Effluent: TOC (3/yr)	3	Annually	3	\$ 20.00	\$ 60
	Influent: Chlorides (3/yr)	3	Annually	3	\$ 20.00	\$ 60
	Influent: TDS (3/yr)	3	Annually	3	\$ 20.00	\$ 60
	Influent: TOC (3/yr)	3	Annually	3	\$ 20.00	\$ 60
	Influent: Nitrate Nitrogen (3/yr)	3	Annually	3	\$ 25.00	\$ 75
	Monitoring Wells (4 total - 3/yr) Color, Depth, Ammonia Nitrogen, Gallons, Odor, TOC, TDS, Chloride, fecal Coliform, Nitrate Nitrogen, Temp, pH	12	Annually	12	\$ 215.00	\$ 2,580
	VOC (4 Monitoring wells - 1/yr)	4	Annually	4	\$ 110.00	\$ 440
	Sludge Testing (for land application)	1	Annually	1	\$ 1,700.00	\$ 1,700
Corolla Light	*Plant #1 Effluent: BOD, Fecal Coliform, Ammonia Nitrogen, Total Nitrogen, Total Phosphorus, TSS (1/week May-Aug)	1	Weekly	16	\$ 130.00	\$ 2,080
	**Plant #1 Effluent: BOD, Fecal Coliform, Ammonia Nitrogen, Total Nitrogen, Total Phosphorus, TSS (2/month Sept-April)	2	Monthly	16	\$ 130.00	\$ 2,080
	***Plant #1 Effluent: TOC, Chlorides, TDS (3/yr)	3	Annually	3	\$ 60.00	\$ 180
	Plant #1 Influent: TOC, Chlorides, Nitrate Nitrogen, TDS (3/yr) (decrease from 4/yr. Added Nitrates, dropped Total Phosphorus)	3	Annually	3	\$ 75.00	\$ 225
	Monitoring Wells (Plant #1) (7 total - 3/yr) Color, Depth, Gallons, TDS, Temperature, Chloride, pH, TOC, Ammonia Nitrogen, Fecal Coliform, Odor (decrease from 4/yr)	21	Annually	21	\$ 235.00	\$ 4,935
	VOC (Monitoring wells; Plant #1; 7 total - 1/yr)	7	Annually	7	\$ 110.00	\$ 770
	Plant #2 Effluent & Influent: BOD (2), TSS (2), Fecal Coliform (1), (2/month, June-Sept)	8	Annually	8	\$ 90.00	\$ 720
	Monitoring Wells (Plant #2) (5 total - 2/yr) Color, Depth, Gallons, TDS, Temperature, Chloride, pH, TOC, Ammonia Nitrogen, Total Coliforms, Nitrate Nitrogen, Orthophosphate, TSS	10	Annually	10	\$ 225.00	\$ 2,250
	Monitoring Wells (Plant #2) (5 total - 1/yr November only) Color, Depth, Gallons, TDS, Temperature, Chloride, pH, TOC, Ammonia Nitrogen, Total Coliforms, Nitrate Nitrogen, Orthophosphate, TSS, TOX	5	Annually	5	\$ 335.00	\$ 1,675
	Plant #1 Sludge Testing (for land application)	1	Annually	1	\$ 500.00	\$ 500
	Plant #2 Sludge Testing (for land application)	1	Annually	1	\$ 500.00	\$ 500
Monterey Shores	*Effluent: BOD, Ammonia Nitrogen, Total Nitrogen, Total Phosphorus, TSS, Fecal Coliform	1	Weekly	52	\$ 130.00	\$ 6,760
	Effluent: Chlorides, TDS	3	Annually	3	\$ 40.00	\$ 120
	Influent: TOC, TDS, Chlorides, Nitrate Nitrogen	3	Annually	3	\$ 75.00	\$ 225
	GWLS Effluent: BOD, Ammonia Nitrogen, Fecal Coliform, Total Nitrogen, Total Phosphorus	1	Weekly	52	\$ 115.00	\$ 5,980
	GWLS Effluent: TDS, Chlorides, TOC	3	Annually	3	\$ 60.00	\$ 180
	Monitoring Wells (2 total - 3 per yr) Color, Depth, Ammonia Nitrogen, Gallons, TDS, Temp, Chloride, pH, Total Phosphorus, TOC, Nitrate Nitrogen, Fecal Coliform	6	Annually	6	\$ 250.00	\$ 1,500
	VOC (Monitoring wells; Plant #1; 2 total - 1/yr)	2	Annually	2	\$ 110.00	\$ 220
	Sludge testing (for land application)	1	Annually	1	\$ 500.00	\$ 500
					Total OBX	\$ 41,835
Fairfield Sapphire Valley	BOD	1	Weekly	52		
	Total Suspended Solids (TSS)	1	Weekly	52	\$ 235.00	\$ 2,820
	Ammonia Nitrogen (NH ₃ as N)	1	Weekly	52		
	Fecal Coliform	1	Weekly	52		
	Total Nitrogen (NN/TKN)	2	Annually	2	\$ 35.00	\$ 70
	Total Phosphorus	2	Annually	2	\$ 18.00	\$ 36
					Total BU 183 (less Fairfield Harbour)	\$ 2,926
Carolina Trace	BOD	3	Weekly	156	\$ 22.31	\$ 3,480
	Total Suspended Solids (TSS)	3	Weekly	156	\$ 12.61	\$ 1,967
	Ammonia Nitrogen (NH ₃ as N)	3	Weekly	156	\$ 17.46	\$ 2,724
	Fecal Coliform	3	Weekly	156	\$ 18.43	\$ 2,875
	Total Nitrogen (NN/TKN)	1	Quarterly	4	\$ 33.95	\$ 136
	Total Phosphorus	1	Quarterly	4	\$ 17.46	\$ 70
	Chronic Toxicity (Qtrly)	1	Annually	4	\$ 400.00	\$ 1,600
	Field Lab Certification Testing	1	Annually	1	\$ 515.69	\$ 516
					Total 187	\$ 13,368
Connestee Falls	Plant #1: BOD (1/wk)	1	Weekly	52	\$ 25.00	\$ 1,300
	Plant #1: TSS (1/wk)	1	Weekly	52	\$ 10.00	\$ 520
	Plant #1: Fecal Coliform (1/wk)	1	Weekly	52	\$ 25.00	\$ 1,300
	Plant #1: Ammonia Nitrogen (2/mth)	2	Monthly	24	\$ 18.00	\$ 432
	Plant #1: Total Phosphorus (2/yr)	2	Annually	2	\$ 18.00	\$ 36
	Plant #1: Total Nitrogen (NN/TKN) (2/yr)	2	Annually	2	\$ 40.00	\$ 80
	Plant #2: BOD (1/wk)	1	Weekly	52	\$ 25.00	\$ 1,300
	Plant #2: TSS (1/wk)	1	Weekly	52	\$ 10.00	\$ 520
	Plant #2: Fecal Coliform (1/wk)	1	Weekly	52	\$ 25.00	\$ 1,300

	Testing Costs 10	# of Samples	Frequency	Tests	Cost	Annual
	Wastewater Analysis	Required		Per Year	Per Test	Cost
	Plant #2: Ammonia Nitrogen (2/mth)	2	Monthly	24	\$ 18.00	\$ 432
					Total 188	\$ 7,220
Elk River	BOD	1	Weekly	52	\$ 16.00	\$ 832
	Total Suspended Solids (TSS)	1	Weekly	52	\$ 9.60	\$ 499
	Ammonia Nitrogen (NH ₃ as N)	1	Weekly	52	\$ 14.40	\$ 749
	Fecal Coliform	1	Weekly	52	\$ 13.60	\$ 707
	Total Nitrogen (NN/TKN)	2	Annually	2	\$ 44.00	\$ 88
	Total Phosphorus	2	Annually	2	\$ 35.00	\$ 70
					Total 181	\$ 2,945

Fairfield Harbor and Bradfield Farms

	Testing Costs 10	# of Samples R	Frequency	Tests Per Year	Cost Per Test	Annual Cost
	Wastewater Analysis					
Fairfield Harbor	BOD	3	Weekly	156	\$ 22.31	\$ 3,480
	Total Suspended Solids (TSS)	3	Weekly	156	\$ 12.61	\$ 1,967
	Ammonia Nitrogen (NH ₃ as N)	3	Weekly	156	\$ 17.46	\$ 2,724
	Enterococci	3	Weekly	156	\$ 32.01	\$ 4,994
	Total Nitrogen (NN/TKN)	1	Weekly	52	\$ 33.95	\$ 1,765
	Total Phosphorus (Qtrly)	1	Weekly	52	\$ 17.46	\$ 908
					Total Fairfield Harbour	\$ 15,838
Bradfield Farms	BOD	1	Weekly	52	\$ 20.00	\$ 1,040
	Total Suspended Solids (TSS)	1	Weekly	52	\$ 12.00	\$ 624
	Ammonia Nitrogen (NH ₃ as N)	1	Weekly	52	\$ 19.00	\$ 988
	Fecal Coliform	3	Weekly	156	\$ 20.00	\$ 3,120
	Total Nitrogen (NN/TKN)	1	Quarterly	4	\$ 52.00	\$ 208
	Total Phosphorus	1	Quarterly	4	\$ 26.00	\$ 104
					Total 191	\$ 6,084

Grand total \$ 288,327

Totals:
Uniform \$ 266,405
FH & BF \$ 21,922

W-354, Sub 356
 Test Year Ending December 31, 2016
 Purchased Sewer

Quant
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Service Area	Invoices	Adjustments	Public Staff Corrected Invoices	Company Ledger ¹ Total	Company's Adjustment for Dec Accrual	Company's Adjustment for Jan Credit	
White Oak Plantation ²	\$89,190.81	5,150.22	\$94,341.03	92,290.81	7,600.00	4,500.00	89,190.81
Mt. Carmel ³	\$128,813.19	(1,342.36)	\$127,470.83	128,242.01	10,200.00	10,100.00	128,142.01
Kings Grant	\$20,254.92		\$20,254.92	19,645.92	1,800.00	2,400.00	20,245.92
College park	\$32,023.36		\$32,023.36	31,768.11	3,900.00	7,707.05	35,575.16
Ridges at Mtn Harbour ⁴	\$2,334.62	3,952.00	\$6,286.62	3,534.62	1,200.00		2,334.62
Fairfield Mountain	\$309,159.00		\$309,159.00	338,359.00	67,700.00	38,500.00	309,159.00
Total	\$581,775.90		\$589,535.76	613,840.47	92,400.00	63,207.05	584,647.52

Notes:

1. The ledger totals include the estimated 13th month aka December total
2. Adjustment of \$5,150.22 due to increase rates (letter from Johnston Co. dated April 6, 2017)
3. Past Due charges were removed as adjustments
4. Invoices only available for approximately 6 months, adjustment included to estimate a full year

System	Rate Division	Invoice Amount
Bradfield Farms W	BF/FH	\$870.00
Carolina Trace Utilities Inc W	CWS-NC Uniform	\$1,460.00
CWS - NC Cost Center	CWS-NC Uniform	\$39,185.00
CWS Systems Inc Cost Center	BF/FH	\$1,460.00
CWS Systems Inc Cost Center	CWS-NC Uniform	\$11,570.00
Eastwood Forest	CWS-NC Uniform	\$135.00
Elk River Utilities W	CWS-NC Uniform	\$780.00
Heather Glen	CWS-NC Uniform	\$860.00
Heather Glen - Boiler Inspection	CWS-NC Uniform	\$540.00
Hidden Hollow	CWS-NC Uniform	\$135.00
Hidden Hollow	CWS-NC Uniform	\$135.00
Linsey Pointe	CWS-NC Uniform	\$135.00
Meadow Glen	CWS-NC Uniform	\$135.00
Olde Point W	CWS-NC Uniform	\$35.00
Olde Point W	CWS-NC Uniform	\$135.00
Sandy Trail	CWS-NC Uniform	\$135.00
Sugar Mountain W	CWS-NC Uniform	\$150.00
The Point	CWS-NC Uniform	\$860.00
Westwood Forest	CWS-NC Uniform	\$135.00
Wilders Village	CWS-NC Uniform	\$270.00
Wood Trace - Backwash	CWS-NC Uniform	\$860.00
Treasure Cove	CWS-NC Uniform	\$135.00
The Harbour	CWS-NC Uniform	\$860.00
The Farm	CWS-NC Uniform	\$135.00
The Harbour	CWS-NC Uniform	\$85.00
The Harbour	CWS-NC Uniform	\$85.00
Amherst	CWS-NC Uniform	\$135.00
The Harbour	CWS-NC Uniform	\$185.00
Ransdale Forest	CWS-NC Uniform	\$35.00
Lonesome Valley	CWS-NC Uniform	\$135.00
Treasure Cove	CWS-NC Uniform	\$135.00
Old Point	CWS-NC Uniform	\$135.00
Meadow Glen	CWS-NC Uniform	\$135.00
Lindsey Point	CWS-NC Uniform	\$135.00
Lonesome Valley	CWS-NC Uniform	\$305.00
Golf View S/D	CWS-NC Uniform	\$660.00
Sassafras Ridge	CWS-NC Uniform	\$135.00
Connestee Falls	CWS-NC Uniform	\$1,350.00

Invoices Total:
\$64,760.00

Uniform \$62,430.00
Bradfield Farms & Fairfield Harbor \$2,330.00

System	Rate Division	Invoice Amount
Ashley Hills CWS NC	CWS-NC Uniform	\$5,595.50
Ashley Hills CWS NC	CWS-NC Uniform	\$860.00
Ashley Hills CWS NC	CWS-NC Uniform	\$5,595.50
Ashley Hills CWS NC	CWS-NC Uniform	\$5,595.50
Bear Paw Resort S	CWS-NC Uniform	\$860.00
Belvedere Plantation S	CWS-NC Uniform	\$810.00
Bent Creek S	CWS-NC Uniform	\$860.00
Bradfield Farms/Larkhaven S	BF/FH	\$860.00
Bradfield Farms/Larkhaven S	BF/FH	\$810.00
Brandywine Bay S	CWS-NC Uniform	\$810.00
Brandywine Bay S	CWS-NC Uniform	\$1,310.00
Carolina Pines Utilities Inc	CWS-NC Uniform	\$860.00
Carolina Trace Utilities Inc S	CWS-NC Uniform	\$860.00
Corolla Light S	CWS-NC Uniform	\$750.00
Corolla Light S	CWS-NC Uniform	\$1,310.00
Danby S	CWS-NC Uniform	\$1,330.00
Elk River Utilities S	CWS-NC Uniform	\$860.00
Fairfield Harbour S	BF/FH	\$968.38
Fairfield Harbour S	BF/FH	\$860.00
Hestron Park S	CWS-NC Uniform	\$1,310.00
Hound Ears S	CWS-NC Uniform	\$860.00
Independent/Hemby	CWS-NC Uniform	\$860.00
Kings Grant - Raleigh	CWS-NC Uniform	\$860.00
Kings Grant - Raleigh	CWS-NC Uniform	\$560.50
Kings Grant - Raleigh	CWS-NC Uniform	\$560.50
Kings Grant - Raleigh	CWS-NC Uniform	\$560.50
Kynwood Abington S	CWS-NC Uniform	\$860.00
Monteray Shores S	CWS-NC Uniform	\$1,310.00
Nags Head	CWS-NC Uniform	\$810.00
Nags Head	CWS-NC Uniform	\$1,310.00
Nero Utility Services Inc S	CWS-NC Uniform	\$603.00
Nero Utility Services Inc S	CWS-NC Uniform	\$860.00
Nero Utility Services Inc S	CWS-NC Uniform	\$603.25
Nero Utility Services Inc S	CWS-NC Uniform	\$603.25
Queens Harbor S	CWS-NC Uniform	\$860.00
Regalwood	CWS-NC Uniform	\$860.00
Riverpointe S	CWS-NC Uniform	\$860.00
Saddlewood S	CWS-NC Uniform	\$860.00
Sapphire Valley S	CWS-NC Uniform	\$860.00
Sugar Mountain S	CWS-NC Uniform	\$860.00
Transylvania Utilities Inc S	CWS-NC Uniform	\$860.00
Transylvania Utilities Inc S	CWS-NC Uniform	\$860.00
White Oak Estates	CWS-NC Uniform	\$810.00
White Oak Estates	CWS-NC Uniform	\$860.00
Willowbrook S	CWS-NC Uniform	\$3,154.00
Willowbrook S	CWS-NC Uniform	\$860.00
Wolf Laurel S	CWS-NC Uniform	\$860.00

Carolina Water Service Inc. of North Carolina
Docket No. W-354, Sub 356
Sewer Permits

Quant
Exhibit 3
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System	Rate Division	Invoice Amount
Amherst S/D	CWS-NC Uniform	\$603.00
Amherst S/D	CWS-NC Uniform	\$860.00
Amherst S/D	CWS-NC Uniform	\$603.25
Amherst S/D	CWS-NC Uniform	\$603.25
Hemby Acres	CWS-NC Uniform	\$860.00
Abington	CWS-NC Uniform	\$860.00

Invoices Total:
56,859.88

Uniform: 53,361.50
Bradfield Farms & Fairfield Harbor: 3,498.38

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Sep 19 2017