

Utility Discussion Materials

Town of Pittsboro, North Carolina

PITTSBORO
North Carolina

October 24, 2016

Topics for Discussion

- Historical Financial Performance

- Current Wastewater Capacity and Projected Flows

- Overview of Wooten Study Results

- Overview of Projected Costs of Service
 - 1) Sanford Wastewater Treatment Contract Overview

 - 2) Forcemain & Equalization Basin Costs

 - 3) Existing Wastewater System Costs

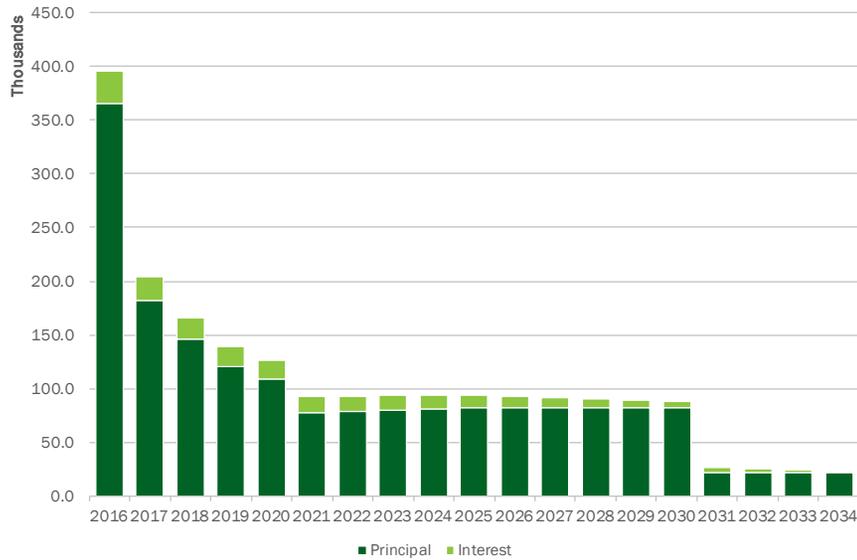
- Cost of Service Comparison

Historical Financial Performance

Existing Debt Profile

Water & Sewer Fund

Debt Service



Estimated as of 6/30/2015

Type	Par Amount
Wastewater	\$1,507,785
Water	\$317,403
Total	\$1,825,188

Existing Debt Service

FY	Principal	Interest	Total	10-Year Payout Ratio
Total	1,825,188	226,410	2,051,598	
2016	365,727	29,932	395,659	72.5%
2017	182,095	21,948	204,043	71.3%
2018	146,033	20,151	166,184	73.7%
2019	120,931	18,237	139,168	77.6%
2020	109,352	16,706	126,058	83.1%
2021	77,805	15,383	93,188	90.2%
2022	78,805	14,490	93,295	92.0%
2023	79,805	13,545	93,350	94.1%
2024	80,805	12,548	93,353	96.7%
2025	81,805	11,498	93,303	100.0%
2026	82,805	10,395	93,200	100.0%
2027	82,805	9,240	92,045	100.0%
2028	82,805	8,085	90,890	100.0%
2029	82,805	6,930	89,735	100.0%
2030	82,805	5,775	88,580	100.0%
2031	22,000	4,620	26,620	100.0%
2032	22,000	3,465	25,465	100.0%
2033	22,000	2,310	24,310	100.0%
2034	22,000	1,155	23,155	100.0%

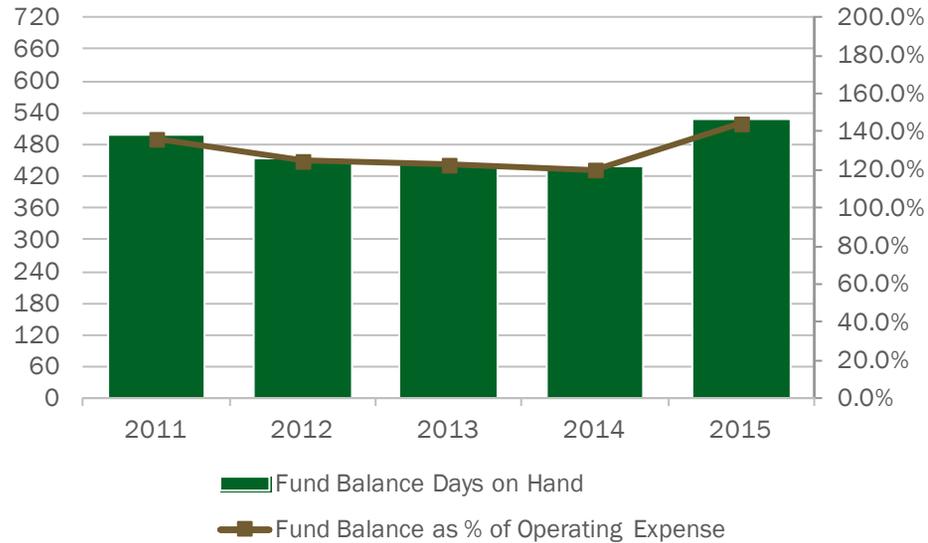
Historical Water & Sewer Financial Operations

Water & Sewer Fund and Water & Sewer Capital Reserve Fund

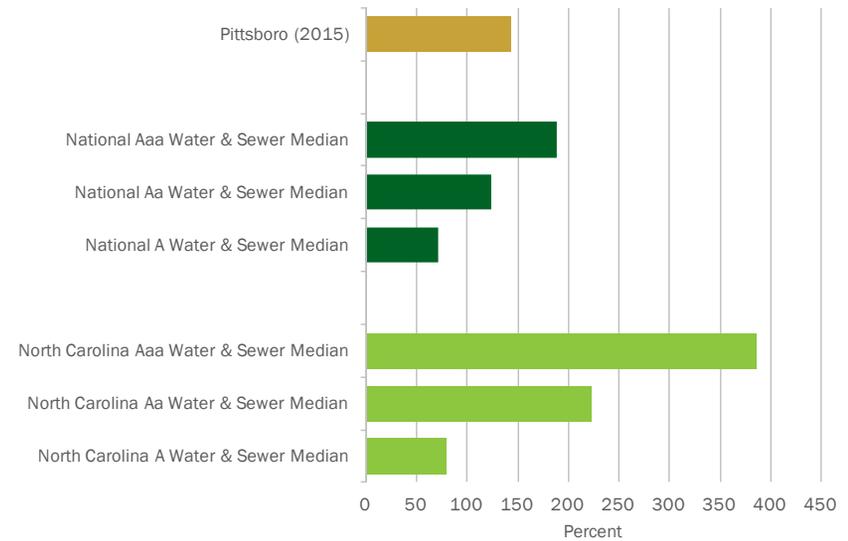
Fiscal Year	2011	2012	2013	2014	2015
	Audited	Audited	Audited	Audited	Audited
1 Revenues	2,882,136	2,819,545	2,627,611	2,887,633	3,392,295
2 Expenditures	1,894,923	1,988,090	1,984,494	2,173,912	2,254,473
3 Net Revenue Available for Debt Service	987,213	831,455	643,117	713,721	1,137,822
4					
5 Total Debt Service	359,096	406,365	452,363	491,994	475,285
6					
7 Net Revenue after Debt Service	628,117	425,090	190,754	221,727	662,537
8					
9 Capital Outlay	(76,494)	(22,590)	(46,179)	(32,356)	(10,412)
10 Other Sources (Uses) of Funds	(329,176)	(506,528)	(187,998)	(12,000)	(10,000)
11					
12 System Surplus (Deficit)	222,447	(104,028)	(43,423)	177,371	642,125
13					
14 Ending Fund Balance	2,580,935	2,476,907	2,433,484	2,610,855	3,252,980
15					
16 Total Debt Service Coverage	2.75x	2.05x	1.42x	1.45x	2.39x
17 Fund Balance as % of Operating Expense	136.2%	124.6%	122.6%	120.1%	144.3%
18 Fund Balance Days on Hand	497	455	448	438	527

Note: Includes both the Water & Sewer Fund and the Water & Sewer Capital Reserve Fund.

Liquidity



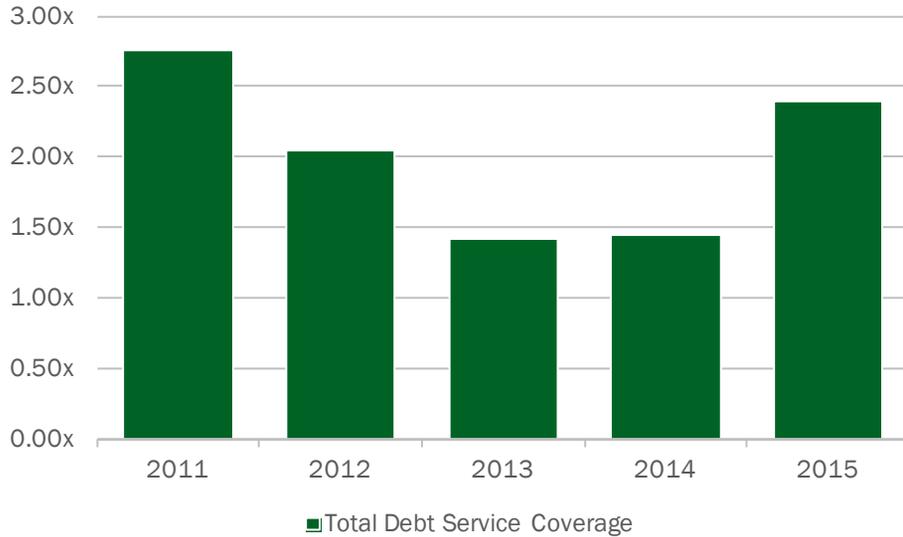
Peer Comparative: Unrestricted Cash as a % of O&M



- Cumulative Funds available after Operations and Debt Service needs
- Days Cash on Hand = Unrestricted Cash ÷ (Operating Expenditures ÷ 365)
- Unrestricted Cash as % of O&M = Unrestricted Cash ÷ Operating Expenditures
- Standard and Poor's criteria for Water and Sewer Credit defines categories of Days Cash on Hand as:
 - <30 days: Low
 - 30 - 60 days: Adequate
 - 60 - 120 days: Good
 - > 120 days: **Strong**

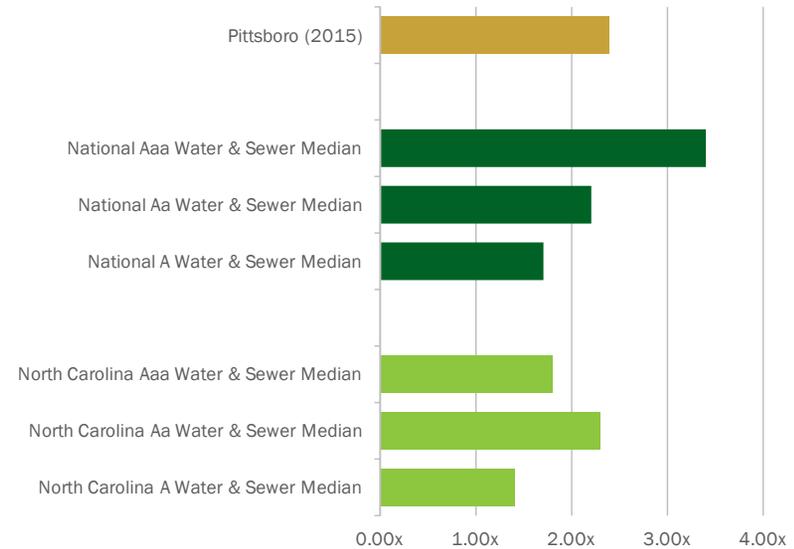
Debt Service Coverage Ratio

Debt Service Coverage Ratio (“DSCR”)



- Measure of ability to meet operating and debt service obligations.
- $DSCR = \text{Net Revenue Available for Debt service} \div \text{Annual Debt Service}$.
- Standard and Poor’s criteria for Water and Sewer Credit defines categories of Debt Service Coverage Ratio as:
 - <1.0x: Insufficient
 - 1.0x – 1.25x: Adequate
 - 1.26x – 1.50x: Good
 - **>1.50x: Strong**

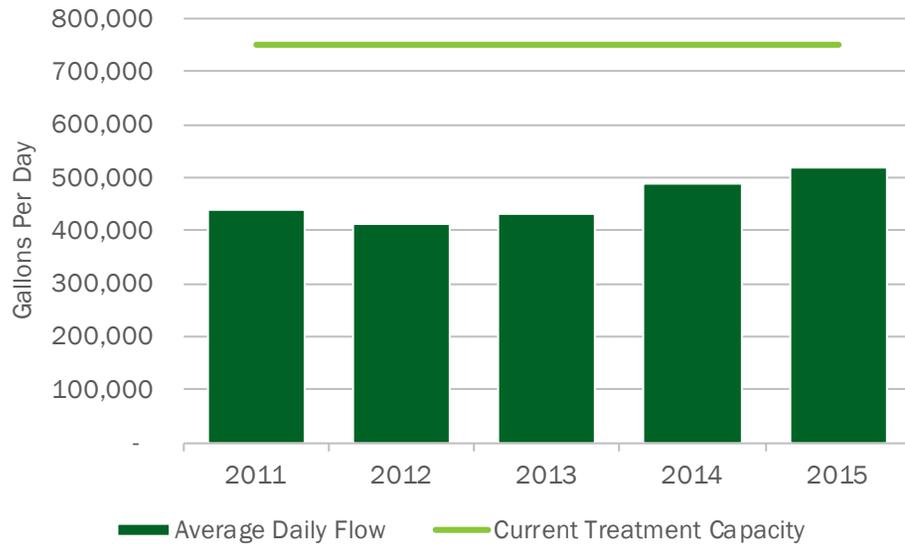
Peer Comparative: Debt Service Coverage Ratio



Current Wastewater Capacity and Projected Flows

Historical and Current Wastewater Flows

Historical Flows



Average Daily Flow

Fiscal Year	Flow (Gallons)	Growth
2011	439,155	n/a
2012	413,510	-5.84%
2013	432,196	4.52%
2014	489,336	13.22%
2015	520,000	6.27%

Note: Historical monthly flow figures provided by Wooten were used to calculate Fiscal Year totals.

Current Flows

- The current annual average wastewater flow from the Town is approximately 0.5 MGD.
- Peak daily flows can reach 1.4 MGD and the three-day sustained peak flow is 1.2 MGD.

Current Wastewater Treatment Capacity

- In 2013, the Town and NCDENR agreed to increase permitted discharge capacity into Robeson Creek. This approach included:
 - A 0.499 MGD increase in discharge to Robeson Creek to a permitted capacity of 1.249 MGD, and
 - Reduced the total discharge to the Haw River to 1.971 MGD accordingly.
- These adjustments maintained the Town's allowable permitted discharge of 3.22 MGD.
- The Town's current Wastewater Treatment Plant is sized for 0.75 MGD of flows.

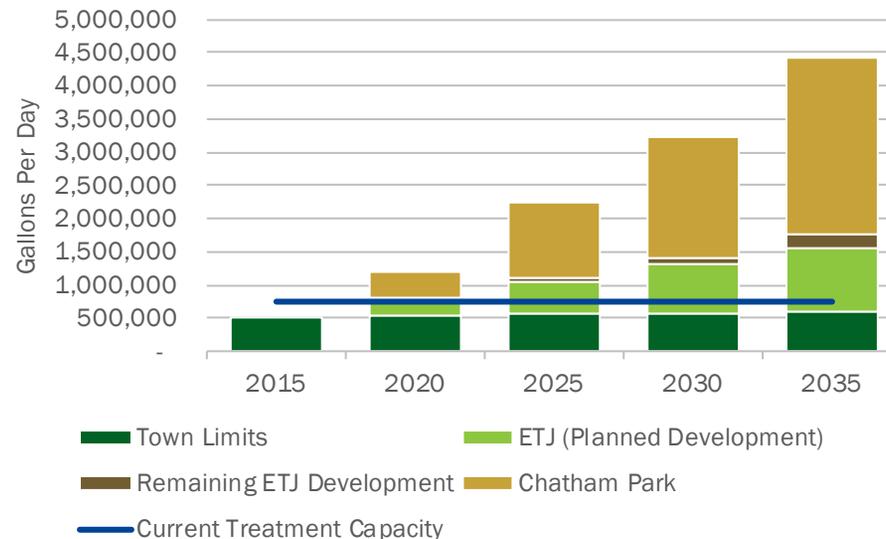
Pittsboro Projected Wastewater Flows

- Future flow projections indicate an annual average wastewater flow increase for the Town and Chatham Park combined of 0.15 to 0.2 MGD per year.

A	B	C	D	E	F	G	H	I	J
Year	Town Limits	ETJ (Planned Development)	Remaining ETJ Development	Town / ETJ	Compound Annual Growth	Chatham Park	Compound Annual Growth	Total Flow Projections	Compound Annual Growth
2015	520,000	-	-	520,000	n/a	-	n/a	520,000	n/a
2020	540,000	241,300	18,500	799,800	8.99%	387,000	n/a	1,186,800	17.94%
2025	561,000	482,600	55,400	1,099,000	6.56%	1,158,000	24.51%	2,257,000	13.72%
2030	583,000	724,000	92,200	1,399,200	4.95%	1,831,000	9.60%	3,230,200	7.43%
2035	606,200	965,300	184,500	1,756,000	4.65%	2,660,000	7.76%	4,416,000	6.45%

Note: Wastewater Flow Projection (GPD)

Note: Projected flows are shown on a calendar year basis. Throughout this analysis, projected Fiscal Year Flows are assumed to track Calendar Year Flows.



Overview of Wooten Study Results

February 2016 PER Report

August 2016 Modified Alternative 4 Memorandum

Future Wastewater Treatment Capacity

Overview of Wooten Capacity Study

- As part of the Town's potential involvement in the proposed Chatham Park Development, a capacity study was conducted by The Wooten Company to identify the various Alternatives the Town has to provide Wastewater treatment in the coming years. The study presented 4 Alternatives for the Town to consider:
 - Alternative 1:
 - Town's existing WWTP – 0.75 MGD
 - Alternative 2:
 - Refurbish the Town's existing WWTP – 0.75 MGD
 - Pump Station to send to Sanford – 2.00 MGD
 - Future Regional WWTP – 1.75 MGD
 - Total – 4.50 MGD
 - Alternative 3:
 - Expand the Town's existing WWTP – 1.249 MGD
 - Decentralized WRF – 0.25 – 0.50 MGD
 - Future Regional WWTP – 1.25 – 2.75 MGD
 - Total – 2.749 – 4.499 MGD
 - Alternative 4:
 - Decommission the Town's existing WWTP – 0.00 MGD
 - Pump Station to send to Sanford – 2.00 MGD
 - Future Regional WWTP – 1.25 – 2.50 MGD
 - Total – 3.25 – 4.50 MGD

Capacity Study Conclusions and Status

- Based upon the information prepared in the report, it was concluded that Alternatives 2 and 4 were the most cost effective Alternatives for the Town.
- After completion of the initial report, Wooten developed a Modified Alternative 4 in conjunction with the Town.
 - The Modified Alternative 4 would include pumping to Sanford, utilizing the existing WWTP as an equalization basin, and the ability to continue facilitating reclaimed water sales to 3M through the construction of a decentralized wastewater reclamation facility by Chatham park.
- Modified Alternative 4 is the current alternative under consideration.

Modified Alternative 4 Components

Overview of Modified Alternative 4

- The Town of Pittsboro will pump wastewater to the City of Sanford (2.00 MGD).

- Treatment of wastewater at the existing WWTP will cease.

- The Town will continue to operate the existing equalization basins at the WWTP for storage of peak storm flows and existing Activated Sludge Package Plants 1 and 2 will be converted to additional equalization storage.
 - The peak daily volume capacity would be approximately 4.1 million gallons.

- Chatham Park will develop a 0.25 MGD decentralized Wastewater Reclamation Facility with an ability to expand up to 0.50 MGD.
 - The Town will allow Chatham Park to discharge up to 250,000 GPD of treated effluent at the Robeson Creek discharge.
 - A portion of this reclaimed will be pumped from the existing infrastructure at the Town's WWTP to 3M in order to meet contractual requirements.

Modified Alternative 4 Costs

- Upon implementation of the initial phase of Modified Alternative 4, the Town is anticipated to have the following costs:
 - 1) Sanford Wastewater Treatment Contract
 - a. Treatment Charges
 - b. Wastewater Capacity Charge

 - 2) Forcemain and Equalization Basin Costs
 - a. Capital / Debt Service
 - b. Operations & Maintenance

 - 3) Existing System Costs
 - a. Debt Service
 - b. Administrative
 - c. Public Utility Maintenance (Collection System)
 - d. Capital Outlay

Overview of Projected Costs of Service

1) Sanford Wastewater Treatment Contract Overview

Sanford Wastewater Treatment Contract Overview

- The Town of Pittsboro and the City of Sanford are considering an Agreement that would provide the Town of Pittsboro with up to 2 MGD of Wastewater treatment capacity in the City of Sanford's Big Buffalo Creek Wastewater Treatment Plant.

- In consideration for the 2 MGD of Wastewater treatment capacity, the following concepts have been discussed:
 - Treatment Charge: Billed at cost based upon a rate per 1,000 gallons.

 - Capacity Charge of \$7,357,494 to be paid over time with interest:
 - Option 1: Fixed Annual Payments
 - Option 2: Variable payments charged at a fixed rate per 1,000 gallons for up to 25 years

Sanford Rate Component 1: Annual Treatment Cost

Annual Treatment Charge

- The first component of the Pittsboro rate structure currently under consideration is associated with the annual treatment cost for the City of Sanford.
- Sanford will determine the net total operating cost (“TC”) of for each fiscal year as follows:
 - The net total operating cost will be determined by taking the total operating expenses of the Water Reclamation Facility less any expenses associated with operating the pretreatment program (except those applicable to Pittsboro) along with any non-treatment related capital expenses (i.e. vehicle replacement expenses.)
 - TC = total operating expenses – [pretreatment costs (except those applicable to Pittsboro) + non-treatment related capital expenses]
- The net total operating cost as determined above shall be divided by the wastewater flow per 1,000 gallons (“TF”) treated at the Sanford Water Reclamation Facility for the previous year to determine a Wastewater Treatment Charge Unit Cost.
- Annual Wastewater Treatment Charge Unit Cost Calculation:
 - Unit Cost per 1,000 Gallons = (TC) ÷ (TF/1000) per 1,000 Gallons
- The rate for any fiscal year will be determined in the preceding November based upon the prior fiscal year’s audited results (i.e. FY 2020 treatment charges will be established by November 2018 (FY 2019) based upon audited FY 2018 financials.

Sanford Historical Cost per 1,000 Gallons

Line Item	FY 2014	FY 2015	FY 2016
1 Salary and Wages	\$ 638,165	\$ 601,459	\$ 640,821
2 401K	30,142	29,934	31,777
3 FICA	46,159	43,976	46,955
4 Insurance	91,769	98,093	97,218
5 Retirement	42,309	41,888	42,390
6 Unemployment Insurance	2,822	-	-
7 Employee Training	2,550	2,713	3,426
8 Professional Services	164,614	135,536	163,329
9 Telephone	17,336	22,449	22,050
10 Cell Phones	2,312	2,625	2,142
11 Printing	-	280	-
12 Maintenance & Repair - Buildings	1,503	3,126	881
13 Maintenance & Repair - Equipment	62,339	49,438	97,271
14 Maintenance & Repair - Auto	3,771	3,142	1,316
15 Utilities	422,329	404,016	369,100
16 Building & Equipment Rental	2,192	2,700	2,811
17 Postage	498	840	597
18 Fuel & Vehicle Supplies	11,212	4,676	3,664
19 Chemicals	40,476	43,573	54,375
20 Department Supplies & Material	35,493	48,338	41,232
21 Department Supplies / Computer	1,394	1,400	-
22 Uniforms	3,829	3,617	4,101
23 Sludge Removal	124,989	130,864	166,636
24 Contractual Services	-	82,596	55,842
25 Dues & Subscriptions	6,251	6,281	835
26 Insurance & Bonds	33,617	36,599	35,114
27 Miscellaneous	888	484	498
28 Capital Outlay - Vehicles	34,844	34,342	22,264
29 Capital - Machinery & Equipment	13,236	8,198	11,961
30 Capital - Adjustments	-	31,698	-
31 Total Utility Fund Water Reclamation	\$ 1,837,039	\$ 1,874,883	\$ 1,918,607
32 Less Capital Vehicles	(34,844)	(34,342)	(22,264)
33 Expenses Less Cost of Vehicles	\$ 1,802,196	\$ 1,840,541	\$ 1,896,343
34 Less: Pre-Treatment Cost	(126,878)	(131,621)	(133,307)
35 Expenses Less Vehicles and Pre-Treatment Cost	\$ 1,675,318	\$ 1,708,921	\$ 1,763,036
36 Gallons of Flow	1,485,976,000	1,450,023,000	1,728,123,000
37 Cost per 1,000 Gallons	\$ 1.13	\$ 1.18	\$ 1.02

- Note: The 3 Year Average Cost per 1,000 Gallons is \$1.11.

Sanford Rate Component 1: Annual Treatment Cost

Projected Annual Treatment Costs

Projected Treatment Charges based on FY 2014 Cost Per 1,000 Gallons							
A	B	C	D	E	F	G	H
Fiscal Year	Sanford Cost / 1,000 Gallons	Sanford Flow - Town Limits (1,000 Gallons) ¹	Total Treatment Cost - Town Limits	Sanford Flow - Town Limits & ETJ (1,000 Gallons) ²	Total Treatment Cost - Town Limits & ETJ	Sanford Flow - Town Limits, ETJ & Chatham Park (1,000 Gallons) ³	Total Treatment Cost - Town Limits, ETJ & Chatham Park
2020	\$ 1.13	197,100	\$ 222,214	291,927	\$ 329,124	433,182	\$ 488,378
2021	\$ 1.13	198,610	\$ 223,916	311,084	\$ 350,722	492,608	\$ 555,375
2022	\$ 1.13	200,131	\$ 225,631	331,498	\$ 373,737	560,186	\$ 631,564
2023	\$ 1.13	201,664	\$ 227,360	353,252	\$ 398,263	637,034	\$ 718,205
2024	\$ 1.13	203,209	\$ 229,101	376,433	\$ 424,397	724,425	\$ 816,731
2025	\$ 1.13	204,765	\$ 230,856	401,135	\$ 452,247	730,000	\$ 823,016

Projected Treatment Charges based on FY 2015 Cost Per 1,000 Gallons							
A	B	C	D	E	F	G	H
Fiscal Year	Sanford Cost / 1,000 Gallons	Sanford Flow - Town Limits (1,000 Gallons) ¹	Total Treatment Cost - Town Limits	Sanford Flow - Town Limits & ETJ (1,000 Gallons) ²	Total Treatment Cost - Town Limits & ETJ	Sanford Flow - Town Limits, ETJ & Chatham Park (1,000 Gallons) ³	Total Treatment Cost - Town Limits, ETJ & Chatham Park
2020	\$ 1.18	197,100	\$ 232,292	291,927	\$ 344,050	433,182	\$ 510,525
2021	\$ 1.18	198,610	\$ 234,071	311,084	\$ 366,627	492,608	\$ 580,561
2022	\$ 1.18	200,131	\$ 235,864	331,498	\$ 390,686	560,186	\$ 660,205
2023	\$ 1.18	201,664	\$ 237,670	353,252	\$ 416,324	637,034	\$ 750,775
2024	\$ 1.18	203,209	\$ 239,491	376,433	\$ 443,644	724,425	\$ 853,769
2025	\$ 1.18	204,765	\$ 241,325	401,135	\$ 472,757	730,000	\$ 860,339

Projected Treatment Charges based on FY 2016 Cost Per 1,000 Gallons							
A	B	C	D	E	F	G	H
Fiscal Year	Sanford Cost / 1,000 Gallons	Sanford Flow - Town Limits (1,000 Gallons) ¹	Total Treatment Cost - Town Limits	Sanford Flow - Town Limits & ETJ (1,000 Gallons) ²	Total Treatment Cost - Town Limits & ETJ	Sanford Flow - Town Limits, ETJ & Chatham Park (1,000 Gallons) ³	Total Treatment Cost - Town Limits, ETJ & Chatham Park
2020	\$ 1.02	197,100	\$ 201,082	291,927	\$ 297,825	433,182	\$ 441,933
2021	\$ 1.02	198,610	\$ 202,622	311,084	\$ 317,369	492,608	\$ 502,560
2022	\$ 1.02	200,131	\$ 204,174	331,498	\$ 338,195	560,186	\$ 571,503
2023	\$ 1.02	201,664	\$ 205,738	353,252	\$ 360,388	637,034	\$ 649,904
2024	\$ 1.02	203,209	\$ 207,314	376,433	\$ 384,038	724,425	\$ 739,061
2025	\$ 1.02	204,765	\$ 208,902	401,135	\$ 409,239	730,000	\$ 744,748

¹ FY 2020 Flow assumed to grow at 0.78% annually.

² FY 2020 Flow assumed to grow at 6.61% annually.

³ FY 2020 Flow assumed to grow at 12.10% annually. FY 2025 is capped at 2.0 MGD.

Note: Totals may not foot due to rounding.

Sanford Rate Component 2: Capacity Charge

Option 1: Fixed Annual Payments

Capacity Charge

- Pittsboro shall pay to Sanford a Capacity Charge to partially reimburse Sanford for certain capital improvements to the Sanford Water Reclamation Facility constructed prior to the Effective Date of this Agreement. Pittsboro agrees to pay a proportionate share of said costs calculated at 16.67% of the principal balance of Sanford's long term bond indebtedness as of June 30, 2016 amortized over a term of not more than 25 years at 3.51% payable as follows:
 - In equal annual installments beginning on the first anniversary of the connection of the Pittsboro force main to the Sanford Water Reclamation Facility; or
 - As a "Unit Price" for each 1,000 U.S. gallons of Wastewater transmitted by Pittsboro to Sanford's Water Reclamation Facility. The unit price shall be calculated so as to repay the capacity charge over a term of 25 years with interest as aforesaid upon the projected flow on a monthly basis as billed by Sanford.
 - The Capacity Charge may be prepaid in whole or in part at any time by Pittsboro.
- For purposes of calculating the Capacity Charge in this analysis, Option 1: Fixed Annual Payments is utilized. A detailed analysis of the Fixed Rate vs. Variable Rate Capacity Charge Options is included in Appendix C.

Option 1 Capacity Charge Calculation – Fixed Annual Payments

A	B	C	D	E
Fiscal Year	Principal	Interest	Total Payment	Principal Balance
2019	\$ -	\$ -	\$ -	\$ 7,357,494
2020	188,645	258,248	446,893	7,168,849
2021	195,267	251,627	446,893	6,973,582
2022	202,121	244,773	446,893	6,771,461
2023	209,215	237,678	446,893	6,562,246
2024	216,559	230,335	446,893	6,345,687
2025	224,160	222,734	446,893	6,121,527
2026	232,028	214,866	446,893	5,889,499
2027	240,172	206,721	446,893	5,649,327
2028	248,602	198,291	446,893	5,400,725
2029	257,328	189,565	446,893	5,143,397
2030	266,360	180,533	446,893	4,877,037
2031	275,709	171,184	446,893	4,601,328
2032	285,387	161,507	446,893	4,315,941
2033	295,404	151,490	446,893	4,020,537
2034	305,773	141,121	446,893	3,714,764
2035	316,505	130,388	446,893	3,398,259
2036	327,615	119,279	446,893	3,070,644
2037	339,114	107,780	446,893	2,731,530
2038	351,017	95,877	446,893	2,380,514
2039	363,337	83,556	446,893	2,017,176
2040	376,091	70,803	446,893	1,641,086
2041	389,291	57,602	446,893	1,251,794
2042	402,955	43,938	446,893	848,839
2043	417,099	29,794	446,893	431,739
2044	431,739	15,154	446,893	-
Total	\$ 7,357,494	\$ 3,814,843	\$ 11,172,337	

Note: Assumes 25 level payments at 3.51%.

Overview of Projected Costs of Service

2) Forcemain & Equalization Basin Costs

State Revolving Fund Loan Capital Cost

- In order to implement Modified Alternative 4, the Town will need to construct the following:
 - Lift Station (Forcemain) to deliver wastewater to Sanford’s Big Buffalo Creek Wastewater Treatment Plant
 - Convert the existing WWTP to an Equalization Basin

- The total cost of designing, constructing, and financing the facility is estimated to be \$19,669,000.

- These capital costs are anticipated to be funded through a State Revolving Fund Loan.

Item	Cost
1 New Lift Station	
2 Three Pumps with Motors and VFDs	\$ 525,000
3 Control Panel	50,000
4 Fencing	10,000
5 Gavel	8,000
6 Backup Generator with ATS	250,000
7 We Well	195,000
8 Additional Dry Well	120,000
9 Vale Vault with Flow Meter	40,000
10 Odor Control System	80,000
11 Electrical Improvements	300,000
12 Pump Monorail Hoists	50,000
13 Above Ground Building, 30x30 ft., One Story	250,000
14 Headwork Improvements	750,000
15 18' C-905 PVC Force Main	6,200,000
16 18" RJDl Force Main	50,000
17 18' DI Force Main	20,000
18 18" Fusible PVC Force Main via Directional Drill	750,000
19 30" Steel Encasement Bored & Jacked w/ Carrier Pipe	1,500,000
20 18' Plug Valve	350,000
21 Pigging Stations	250,000
22 Air Release Valves	60,000
23 Gravel Driveway Repairs	15,000
24 Erosion Control	250,000
25 Traffic Control	75,000
26 Rock Excavation	940,000
27 Select Backfill	625,000
28 Asphalt Repairs	75,000
29 New EQ Pumps & Piping in New Sanford Pump Station at WWTP Site	90,000
30 Reclaimed 9' DI Water Main, 250 LF, New Box Connection	40,000
31 New EQ System Metering / Instrumentation	55,000
32 Tank Conversion, Equipment Changes / Additions	866,000
33 UV Upgrade (Redundancy)	140,000
34 Contract Bonds, Insurance, Mobilization	750,000
35 Subtotal	\$ 15,729,000
36 Capital Contingencies (10%)	1,573,000
37 Subtotal	\$ 17,302,000
38 Project Administration (CWSRF Loan Fee, Permitting, Engineering, Construction Admin, Loan Admin, Bond Counsel)	2,116,000
39 Additional for FONSI Requirements	25,000
40 Easements (after DOT deletion of controlled access)	226,000
41 Subtotal Administration Costs	\$ 2,367,000
42 Total Estimated Capital Cost	\$ 19,669,000

State Revolving Fund Loan Overview

Overview

- The Town has secured a Letter of Intent to Fund from the Clean Water State Revolving Fund program for a loan with a maximum interest rate of 1.84% and a 20-year final maturity.
- Under the State Revolving Fund loan, principal is repaid on a level basis beginning the May 1 after the placed in service date. Interest is paid each May 1 and November 1 beginning six months after the placed in service date.
- For purposes of this analysis, it is assumed that the Project is completed in May 2019 and the Town makes its first debt service payments in FY 2020.
- A summary of the key assumptions are below:
 - Amount: \$19,669,000
 - Interest Rate: 1.84%
 - Amortization: 20-year Level Principal
 - First Interest: November 1, 2019
 - First Principal: May 1, 2020
 - Final Maturity: May 1, 2039

Estimated Debt Service Payments

Fiscal Year	Principal	Interest	Total
Total	\$ 19,669,000	\$ 3,800,051	\$ 23,469,051
2020	\$ 983,450	\$ 361,910	\$ 1,345,360
2021	983,450	343,814	1,327,264
2022	983,450	325,719	1,309,169
2023	983,450	307,623	1,291,073
2024	983,450	289,528	1,272,978
2025	983,450	271,432	1,254,882
2026	983,450	253,337	1,236,787
2027	983,450	235,241	1,218,691
2028	983,450	217,146	1,200,596
2029	983,450	199,050	1,182,500
2030	983,450	180,955	1,164,405
2031	983,450	162,859	1,146,309
2032	983,450	144,764	1,128,214
2033	983,450	126,668	1,110,118
2034	983,450	108,573	1,092,023
2035	983,450	90,477	1,073,927
2036	983,450	72,382	1,055,832
2037	983,450	54,286	1,037,736
2038	983,450	36,191	1,019,641
2039	983,450	18,095	1,001,545

Forcemain & Equalization Projected Incremental Operating Costs

- Wooten has projected the estimated incremental operating costs associated with the implementation of Modified Alternative 4 to be approximately \$450,000.
- The following additional operations (beyond the original Alternative 4 operation) included in the cost estimate are listed below:
 - Continue to operate the existing reclaimed water system with the existing components. Assumes the reclaimed water flow will be 55,000 gallons per day and that Chatham Park will meet all Robeson Creek discharge limits for water that is not reclaimed.
 - Operate the new EQ storage system for approximately 10 days a month to estimate electrical and labor costs above the original Alternative 4. Electrical cost estimated to be \$0.10/kW-hr.
 - The average pumping flow from the new pump station is estimated to be an average of 1.25 mgd from 2019 to 2025. Electrical pumping costs are based on this daily flow amount.
 - It is estimated that labor requirements for the modified alternative will be 2.5 full time operators for the EQ system, the new pump station and the reclaimed water system. It is also assumed the Town will be responsible for all NPDES discharge paperwork (as is the case now).
 - City of Sanford charges are not included in O&M annual cost estimate.

	Estimated Annual O&M Costs	Annual Cost
1	Labor: Hours/Week; 2.5 People; 40 Hours/Week	\$ 200,000
2	Payroll Taxes	10,000
3	Professional Services	3,000
4	Telephone and Postage	4,000
5	Travel & Training	2,000
6	Dues and Subscriptions	3,500
7	Insurance	10,000
8	Supplies	15,000
9	Contracted Services	15,000
10	Vehicle Maintenance & Repair	25,600
11	Annual Power Cost	106,700
12	General Fuel (gallons)	1,000
13	Calibrations (Flow Meter, Level Sensor, etc.)	2,000
14	Pump Maintenance	10,000
15	Force Main Maintenance	8,000
16	Odor Control Chemicals, \$ per MG	26,000
17	Other Operating Expenditures	11,300
18	Base Annual O&M Cost	\$ 453,100

Overview of Projected Costs of Service

3) Existing Wastewater System Costs

Existing Wastewater System Costs

Existing System Costs

- Upon implementation of Modified Alternative 4, it is anticipated that the Town will continue to incur the following costs associated with the current Wastewater System:
 - Debt Service
 - Administrative
 - Public Utility Maintenance (Collection System)
 - Capital Outlay

- The Town may pursue additional capital investments including upgrades related to Inflow and Infiltration in its current collection system. These potential costs have been excluded from this analysis as they are assumed to be applicable to any option the Town considers.

Existing & Projected Wastewater System Costs

A	B	C	D	E	F	G
Fiscal Year	Administrative Costs ¹	Wastewater Treatment Plant Costs	Public Utility Maintenance ¹	Debt Service	Capital Outlay ²	Total Wastewater Costs
2015	\$ 191,578	\$ 608,783	\$ 216,508	\$ 348,637	\$ 1,771	\$ 1,367,276
2016	197,325	627,046	223,003	294,036	1,771	1,343,181
2017	203,245	645,858	229,693	165,802	18,225	1,262,823
2018	209,342	665,234	236,584	127,838	18,225	1,257,223
2019	215,622	685,191	243,682	101,182	18,225	1,263,902
2020	222,091	-	250,992	94,651	18,225	585,959
2021	228,754	-	258,522	80,619	18,225	586,120
2022	235,616	-	266,278	80,684	18,225	600,803
2023	242,685	-	274,266	80,718	18,225	615,894
2024	249,965	-	282,494	80,719	18,225	631,403
2025	257,464	-	290,969	80,689	18,225	647,347

¹ Current Operating Costs are assumed to be divided equally between the Town's Water and Wastewater Systems. FY 2016 and beyond is grown by 3% annually.

² Capital Outlay is assumed to be divided equally between the Town's Water and Wastewater Systems, where applicable. FY 2017 and beyond is held constant at FY 2017 Budget level.

Cost of Service Comparison

Current Town Cost of Wastewater Treatment Service

- Based upon historical audited financials and historical flows provided by the Wooten Report, Davenport has calculated the Town's cost of wastewater treatment service per 1,000 gallons for FY 2011 – 2015 below:

Fiscal Year	2011 Actual	2012 Actual	2013 Actual	2014 Actual	2015 Actual
1 Administrative Costs ¹	\$ 82,084	\$ 104,919	\$ 118,004	\$ 194,817	\$ 191,578
2 Wastewater Treatment Plant Costs	531,509	564,694	517,150	541,834	608,783
3 Public Utility Maintenance ¹	215,478	230,031	220,065	212,575	216,508
4 Debt Service ²	227,100	276,335	350,377	363,157	348,637
5 Capital Outlay ³	76,494	17,300	-	3,393	1,771
6 Total Wastewater Costs	\$ 1,132,665	\$ 1,193,279	\$ 1,205,595	\$ 1,315,775	\$ 1,367,276
7					
8 Historical Flow (1,000 Gallons)	160,292	150,931	157,752	178,608	189,800
9					
10 Estimated Cost / 1,000 Gallons	\$ 7.07	\$ 7.91	\$ 7.64	\$ 7.37	\$ 7.20

¹ Current Operating Costs are assumed to be divided equally between the Town's Water and Wastewater Systems.

² Existing Debt Service is assumed to be divided between the Town's Water and Wastewater Systems based on information provided by the Town.

³ Capital Outlay is assumed to be divided equally between the Town's Water and Wastewater Systems, where applicable.

Note: Prior to FY 2017, Administrative Costs do not include certain costs associated with billing and collections.

Projected Cost of Service: Modified Alternative 4

Existing Town Limit Flow Only

Fiscal Year	2020	2021	2022	2023	2024	2025
1) Sanford Wastewater Treatment Contract Cost						
2 Treatment Charge per 1,000 Gallons ¹	\$ 1.11	\$ 1.11	\$ 1.11	\$ 1.11	\$ 1.11	\$ 1.11
3 Treatment Charge (\$)	218,529	220,203	221,890	223,589	225,302	227,028
4 Capacity Charge	446,893	446,893	446,893	446,893	446,893	446,893
5 Total Sanford Contract Cost	\$ 665,423	\$ 667,097	\$ 668,783	\$ 670,483	\$ 672,195	\$ 673,921
2) Forcemain & Equalization Basin Costs						
8 Capital Costs - Revolving Loan Debt Service	\$ 1,345,360	\$ 1,327,264	\$ 1,309,169	\$ 1,291,073	\$ 1,272,978	\$ 1,254,882
9 Operating Costs ^{2,3}	453,100	466,693	480,694	495,115	509,968	525,267
10 Total Forcemain & Equalization Basin Costs	\$ 1,798,460	\$ 1,793,957	\$ 1,789,862	\$ 1,786,188	\$ 1,782,946	\$ 1,780,149
3) Existing System Costs						
13 Administrative Costs ²	\$ 222,091	\$ 228,754	\$ 235,616	\$ 242,685	\$ 249,965	\$ 257,464
14 Public Utility Maintenance ²	250,992	258,522	266,278	274,266	282,494	290,969
15 Debt Service	94,651	80,619	80,684	80,718	80,719	80,689
16 Capital Outlay ⁴	18,225	18,225	18,225	18,225	18,225	18,225
17 Total Existing System Costs	\$ 585,959	\$ 586,120	\$ 600,803	\$ 615,894	\$ 631,403	\$ 647,347
19 Grand Total	\$ 3,049,842	\$ 3,047,173	\$ 3,059,449	\$ 3,072,564	\$ 3,086,544	\$ 3,101,418
21 Projected Flow (1,000 Gallons) - Town Limits⁵	197,100	198,610	200,131	201,664	203,209	204,765
23 Cost per 1,000 Gallons	\$ 15.47	\$ 15.34	\$ 15.29	\$ 15.24	\$ 15.19	\$ 15.15

¹ Assumed to be constant at the average Sanford Treatment Charge from FY 2014 - 2016.

² Future Town Wastewater Costs are assumed to grow at 3.00% annually.

³ Certain costs in the Wooten projections may be variable based upon flow. For purposes of this analysis, all costs are assumed to grow at an inflationary rate of 3.00%.

⁴ Capital Outlay is assumed to be held constant at the FY 2017 Budget level.

⁵ Estimated based upon projections provided in the Wooten Report and information from Wooten Staff.

Projected Cost of Service: Modified Alternative 4

Existing Town Limits & ETJ Flow

Fiscal Year	2020	2021	2022	2023	2024	2025
1) Sanford Wastewater Treatment Contract Cost						
2 Treatment Charge per 1,000 Gallons ¹	\$ 1.11	\$ 1.11	\$ 1.11	\$ 1.11	\$ 1.11	\$ 1.11
3 Treatment Charge (\$)	323,666	344,906	367,539	391,658	417,360	444,748
4 Capacity Charge	446,893	446,893	446,893	446,893	446,893	446,893
5 Total Sanford Contract Cost	\$ 770,560	\$ 791,799	\$ 814,433	\$ 838,552	\$ 864,253	\$ 891,641
2) Forcemain & Equalization Basin Costs						
8 Capital Costs - Revolving Loan Debt Service	\$ 1,345,360	\$ 1,327,264	\$ 1,309,169	\$ 1,291,073	\$ 1,272,978	\$ 1,254,882
9 Operating Costs ^{2,3}	453,100	466,693	480,694	495,115	509,968	525,267
10 Total Forcemain & Equalization Basin Costs	\$ 1,798,460	\$ 1,793,957	\$ 1,789,862	\$ 1,786,188	\$ 1,782,946	\$ 1,780,149
3) Existing System Costs						
13 Administrative Costs ²	\$ 222,091	\$ 228,754	\$ 235,616	\$ 242,685	\$ 249,965	\$ 257,464
14 Public Utility Maintenance ²	250,992	258,522	266,278	274,266	282,494	290,969
15 Debt Service	94,651	80,619	80,684	80,718	80,719	80,689
16 Capital Outlay ⁴	18,225	18,225	18,225	18,225	18,225	18,225
17 Total Existing System Costs	\$ 585,959	\$ 586,120	\$ 600,803	\$ 615,894	\$ 631,403	\$ 647,347
19 Grand Total	\$ 3,154,978	\$ 3,171,876	\$ 3,205,098	\$ 3,240,633	\$ 3,278,602	\$ 3,319,137
21 Projected Flow (1,000 Gallons) - Town Limits & ETJ⁵	291,927	311,084	331,498	353,252	376,433	401,135
23 Cost per 1,000 Gallons	\$ 10.81	\$ 10.20	\$ 9.67	\$ 9.17	\$ 8.71	\$ 8.27

¹ Assumed to be constant at the average Sanford Treatment Charge from FY 2014 - 2016.

² Future Town Wastewater Costs are assumed to grow at 3.00% annually.

³ Certain costs in the Wooten projections may be variable based upon flow. For purposes of this analysis, all costs are assumed to grow at an inflationary rate of 3.00%.

⁴ Capital Outlay is assumed to be held constant at the FY 2017 Budget level.

⁵ Estimated based upon projections provided in the Wooten Report and information from Wooten Staff.

Projected Cost of Service: Modified Alternative 4

Existing Town Limits, ETJ, & Chatham Park Flow

Fiscal Year	2020	2021	2022	2023	2024	2025
1) Sanford Wastewater Treatment Contract Cost						
2 Treatment Charge per 1,000 Gallons ¹	\$ 1.11	\$ 1.11	\$ 1.11	\$ 1.11	\$ 1.11	\$ 1.11
3 Treatment Charge (\$)	480,279	546,166	621,091	706,295	803,187	809,368
4 Capacity Charge	446,893	446,893	446,893	446,893	446,893	446,893
5 Total Sanford Contract Cost	\$ 927,172	\$ 993,059	\$ 1,067,984	\$ 1,153,188	\$ 1,250,081	\$ 1,256,261
2) Forcemain & Equalization Basin Costs						
8 Capital Costs - Revolving Loan Debt Service	\$ 1,345,360	\$ 1,327,264	\$ 1,309,169	\$ 1,291,073	\$ 1,272,978	\$ 1,254,882
9 Operating Costs ^{2,3}	453,100	466,693	480,694	495,115	509,968	525,267
10 Total Forcemain & Equalization Basin Costs	\$ 1,798,460	\$ 1,793,957	\$ 1,789,862	\$ 1,786,188	\$ 1,782,946	\$ 1,780,149
3) Existing System Costs						
13 Administrative Costs ²	\$ 222,091	\$ 228,754	\$ 235,616	\$ 242,685	\$ 249,965	\$ 257,464
14 Public Utility Maintenance ²	250,992	258,522	266,278	274,266	282,494	290,969
15 Debt Service	94,651	80,619	80,684	80,718	80,719	80,689
16 Capital Outlay ⁴	18,225	18,225	18,225	18,225	18,225	18,225
17 Total Existing System Costs	\$ 585,959	\$ 586,120	\$ 600,803	\$ 615,894	\$ 631,403	\$ 647,347
19 Grand Total	\$ 3,311,591	\$ 3,373,136	\$ 3,458,650	\$ 3,555,270	\$ 3,664,430	\$ 3,683,758
21 Projected Flow (1,000 Gallons) - Town Limits, ETJ & Chatham Park⁵	433,182	492,608	560,186	637,034	724,425	730,000
23 Cost per 1,000 Gallons	\$ 7.64	\$ 6.85	\$ 6.17	\$ 5.58	\$ 5.06	\$ 5.05

¹ Assumed to be constant at the average Sanford Treatment Charge from FY 2014 - 2016.

² Future Town Wastewater Costs are assumed to grow at 3.00% annually.

³ Certain costs in the Wooten projections may be variable based upon flow. For purposes of this analysis, all costs are assumed to grow at an inflationary rate of 3.00%.

⁴ Capital Outlay is assumed to be held constant at the FY 2017 Budget level.

⁵ Estimated based upon projections provided in the Wooten Report and information from Wooten Staff. FY 2025 is capped at 2.0 MGD.

Projected Cost of Service Under Sanford Proposal

Summary & Other Considerations

Fiscal Year	2015	2020	2021	2022	2023	2024	2025
1 Modified Alternative 4 Projected Cost of Service							
2 Existing Town Flows Only (Page 26)	\$ 7.20	\$ 15.47	\$ 15.34	\$ 15.29	\$ 15.24	\$ 15.19	\$ 15.15
3 % Change from FY 2015 Cost of Service		114.8%	113.0%	112.2%	111.5%	110.8%	110.3%
4							
5 Existing Town & ETJ Flows (Page 27)	\$ 7.20	\$ 10.81	\$ 10.20	\$ 9.67	\$ 9.17	\$ 8.71	\$ 8.27
6 % Change from FY 2015 Cost of Service		50.0%	41.5%	34.2%	27.3%	20.9%	14.9%
7							
8 Existing Town, ETJ, & Chatham Park Flows (Page 28)	\$ 7.20	\$ 7.64	\$ 6.85	\$ 6.17	\$ 5.58	\$ 5.06	\$ 5.05
9 % Change from FY 2015 Cost of Service		6.1%	-4.9%	-14.3%	-22.5%	-29.8%	-30.0%

Variables that Could Improve these Results

- Outside Contributions to Revolving Loan Debt Service
- Increased Flows and Connections
- Other Revenue Sources for the System (e.g. Access Fees, Capital Recovery Fees, Connection Fees)
- Available Fund Balance / Revenue Stabilization Fund
- Reduction in Sanford Annual Treatment Cost per 1,000 Gallons
- Reduction in Operating Cost of the existing Pittsboro Wastewater System
- Reduction in Operating Cost for Forcemain and Equalization Basin
- Reduction of Inflow and Infiltration in Town System
- Increased Reclaimed Water Usage / Sales
- Refinancing of Existing Debt Obligations for Debt Service Savings
- Increased Interest Earnings on System Reserves
- Changes in the Town's Rate Structure
- Other Revenue Sources or Expenditure Reductions
- Other Unidentified Factors

Variables that Could Negatively Impact these Results

- Reduction in Existing Flows
- Slower Growth in Projected Flows
- Increase in Sanford Annual Treatment Cost per 1,000 Gallons
- Increase in Operating Cost of the existing Pittsboro System
- Increase in Operating Cost for Forcemain and Equalization Basin
- Additional Capital Investment in the Pittsboro Wastewater System or Sanford Wastewater Treatment Plant, including new debt service
- Increase of Inflow and Infiltration in Town System
- Reduced Reclaimed Water Usage / Sales
- Unanticipated Costs associate with Modified Alternative 4
- More Stringent Regulatory Requirements
- Increased level of Pretreatment Requirements
- Change in Town Rate Structure
- Other Unidentified Factors

Estimated Average Monthly Wastewater Residential Bill PITTSBORO North Carolina

FY 2015 Estimated Average Monthly Residential Bill

- The chart below outlines the estimated average monthly residential bill for an in-Town customer based upon an estimated average monthly residential usage of 3,200 gallons (meters less than or equal to 1 inch).

1	FY 2015 Average Monthly Usage (Gallons)	3,200
2		
3	Fixed Monthly Charge	\$ 14.00
4		
5	Variable Monthly Charges (1,000 Gallons)	
6	0 to 2,000 Gallons	\$ 6.89
7	Monthly Charge (2,000 Gallons)	\$ 13.78
8		
9	2,001 to 6,000 Gallons	\$ 8.30
10	Monthly Charge (1,200 Gallons)	\$ 9.96
11		
12	Total Estimated Monthly Charge	\$ 37.74

Estimated Average FY 2020 Bill Based on Projections

- In order to provide perspective on the potential change to the average monthly bill for an in-Town residential user, the chart below assumes the average monthly bill will increase at the same level as the projected cost of service increase under Modified Alternative 4 (page 29).

1	FY 2015 Average Monthly Bill	\$ 37.74
2		
3	Existing Town Flows Only	
4	% Growth in Cost of Service FY 15-20	114.8%
5	Estimated FY 2020 Average Monthly Bill	\$ 81.06
6		
7	Existing Town Flows & ETJ	
8	% Growth in Cost of Service FY 15-20	50.0%
9	Estimated FY 2020 Average Monthly Bill	\$ 56.62
10		
11	Existing Town Flows, ETJ and Chatham Park	
12	% Growth in Cost of Service FY 15-20	6.1%
13	Estimated FY 2020 Average Monthly Bill	\$ 40.05

Appendix A

Existing Debt Detail

Existing Debt – Wastewater

\$1,216,085
2010 DENR

FY	Coupon	Principal	Interest	Total
Total		912,075	-	912,075
2016	0.000%	60,805	-	60,805
2017	0.000%	60,805	-	60,805
2018	0.000%	60,805	-	60,805
2019	0.000%	60,805	-	60,805
2020	0.000%	60,805	-	60,805
2021	0.000%	60,805	-	60,805
2022	0.000%	60,805	-	60,805
2023	0.000%	60,805	-	60,805
2024	0.000%	60,805	-	60,805
2025	0.000%	60,805	-	60,805
2026	0.000%	60,805	-	60,805
2027	0.000%	60,805	-	60,805
2028	0.000%	60,805	-	60,805
2029	0.000%	60,805	-	60,805
2030	0.000%	60,805	-	60,805
2031		-	-	-
2032		-	-	-
2033		-	-	-
2034		-	-	-

2010 BB&T IPC

FY	Coupon	Principal	Interest	Total
Total		26,247	278	26,525
2016	2.490%	26,247	278	26,525
2017		-	-	-
2018		-	-	-
2019		-	-	-
2020		-	-	-
2021		-	-	-
2022		-	-	-
2023		-	-	-
2024		-	-	-
2025		-	-	-
2026		-	-	-
2027		-	-	-
2028		-	-	-
2029		-	-	-
2030		-	-	-
2031		-	-	-
2032		-	-	-
2033		-	-	-
2034		-	-	-

2011 Central Electric Membership Corporation

FY	Coupon	Principal	Interest	Total
Total		60,000	-	60,000
2016	0.000%	48,000	-	48,000
2017	0.000%	12,000	-	12,000
2018		-	-	-
2019		-	-	-
2020		-	-	-
2021		-	-	-
2022		-	-	-
2023		-	-	-
2024		-	-	-
2025		-	-	-
2026		-	-	-
2027		-	-	-
2028		-	-	-
2029		-	-	-
2030		-	-	-
2031		-	-	-
2032		-	-	-
2033		-	-	-
2034		-	-	-

Dated Date: 10/29/2010

Next Call: unknown

Purpose: Wastewater

Insurance: unknown

Coupon Dates: May 1

Maturity Date: May 1

Dated Date: 12/10/2010

Next Call: unknown

Purpose: Wastewater

Insurance: unknown

Coupon Dates: Jun 10 / Dec 10

Maturity Date: Jun 10 / Dec 10

Dated Date: 9/26/2011

Next Call: unknown

Purpose: Wastewater

Insurance: unknown

Coupon Dates: Quarterly

Maturity Date: Quarterly

Existing Debt – Wastewater

2012 BB&T IPC					\$523,000 1994 USDA					\$2,500,000 General Obligation Refunding Bonds, Series 2001				
FY	Coupon	Principal	Interest	Total	FY	Coupon	Principal	Interest	Total	FY	Coupon	Principal	Interest	Total
Total		127,260	3,361	130,621	Total		223,941	127,398	351,339	Total		78,158	1,876	80,034
2016	1.770%	50,217	2,031	52,248	2016	5.250%	7,954	11,757	19,711	2016	4.800%	78,158	1,876	80,034
2017	1.770%	51,110	1,139	52,249	2017	5.250%	8,566	11,339	19,905	2017		-	-	-
2018	1.770%	25,933	191	26,124	2018	5.250%	9,178	10,889	20,067	2018		-	-	-
2019		-	-	-	2019	5.250%	9,178	10,408	19,586	2019		-	-	-
2020		-	-	-	2020	5.250%	9,790	9,926	19,716	2020		-	-	-
2021		-	-	-	2021	5.250%	10,402	9,412	19,814	2021		-	-	-
2022		-	-	-	2022	5.250%	11,013	8,866	19,879	2022		-	-	-
2023		-	-	-	2023	5.250%	11,625	8,288	19,913	2023		-	-	-
2024		-	-	-	2024	5.250%	12,237	7,677	19,914	2024		-	-	-
2025		-	-	-	2025	5.250%	12,849	7,035	19,884	2025		-	-	-
2026		-	-	-	2026	5.250%	13,461	6,360	19,821	2026		-	-	-
2027		-	-	-	2027	5.250%	13,461	5,654	19,115	2027		-	-	-
2028		-	-	-	2028	5.250%	13,461	4,947	18,408	2028		-	-	-
2029		-	-	-	2029	5.250%	13,461	4,240	17,701	2029		-	-	-
2030		-	-	-	2030	5.250%	13,461	3,533	16,994	2030		-	-	-
2031		-	-	-	2031	5.250%	13,461	2,827	16,288	2031		-	-	-
2032		-	-	-	2032	5.250%	13,461	2,120	15,581	2032		-	-	-
2033		-	-	-	2033	5.250%	13,461	1,413	14,874	2033		-	-	-
2034		-	-	-	2034	5.250%	13,461	707	14,168	2034		-	-	-

Dated Date:	9/26/2012	Next Call:	unknown	Dated Date:	11/1/1994	Next Call:	Current	Dated Date:	7/1/2001	Next Call:	6/1/2011
Purpose:	Hillsboro Street Wastewater Insurance:	unknown	Purpose:	Wastewater	Insurance:	n/a	Purpose:	Wastewater	Insurance:	n/a	
Coupon Dates:	Semi-annual	Maturity Date:	Semi-annual	Coupon Dates:	Jun 1	Maturity Date:	Jun 1	Coupon Dates:	Jun 1 / Dec 1	Maturity Date:	Jun 1

Existing Debt – Wastewater

BB&T Contract

FY	Coupon	Principal	Interest	Total
Total		51,503	2,151	53,654
2016		6,229	484	6,713
2017		12,634	792	13,426
2018		12,873	553	13,426
2019		13,116	259	13,375
2020		6,651	63	6,714
2021				-
2022				-
2023				-
2024				-
2025				-
2026				-
2027				-
2028				-
2029				-
2030				-
2031				-
2032				-
2033				-
2034				-

First Citizens Loan

FY	Coupon	Principal	Interest	Total
Total		28,601	1,064	29,665
2016		-	-	-
2017		7,155	262	7,417
2018		7,017	399	7,416
2019		7,148	268	7,416
2020		7,281	135	7,416
2021				-
2022				-
2023				-
2024				-
2025				-
2026				-
2027				-
2028				-
2029				-
2030				-
2031				-
2032				-
2033				-
2034				-

Dated Date: unknown

Next Call: unknown

Purpose: Wastewater

Insurance: unknown

Coupon Dates: unknown

Maturity Date: unknown

Dated Date: unknown

Next Call: unknown

Purpose: Wastewater

Insurance: unknown

Coupon Dates: unknown

Maturity Date: unknown

Existing Debt – Water

\$523,000
1994 USDA

FY	Coupon	Principal	Interest	Total
Total		142,059	80,817	222,876
2016	5.250%	5,046	7,458	12,504
2017	5.250%	5,434	7,194	12,628
2018	5.250%	5,822	6,909	12,731
2019	5.250%	5,822	6,602	12,424
2020	5.250%	6,210	6,297	12,507
2021	5.250%	6,598	5,971	12,569
2022	5.250%	6,987	5,624	12,611
2023	5.250%	7,375	5,257	12,632
2024	5.250%	7,763	4,871	12,634
2025	5.250%	8,151	4,463	12,614
2026	5.250%	8,539	4,035	12,574
2027	5.250%	8,539	3,586	12,125
2028	5.250%	8,539	3,138	11,677
2029	5.250%	8,539	2,690	11,229
2030	5.250%	8,539	2,242	10,781
2031	5.250%	8,539	1,793	10,332
2032	5.250%	8,539	1,345	9,884
2033	5.250%	8,539	897	9,436
2034	5.250%	8,539	448	8,987

\$2,500,000
General Obligation Refunding Bonds, Series 2001

FY	Coupon	Principal	Interest	Total
Total		76,842	5,564	82,406
2016	4.800%	76,842	5,564	82,406
2017		-	-	-
2018		-	-	-
2019		-	-	-
2020		-	-	-
2021		-	-	-
2022		-	-	-
2023		-	-	-
2024		-	-	-
2025		-	-	-
2026		-	-	-
2027		-	-	-
2028		-	-	-
2029		-	-	-
2030		-	-	-
2031		-	-	-
2032		-	-	-
2033		-	-	-
2034		-	-	-

Dated Date: 11/1/1994

Next Call: Current

Purpose: Water

Insurance: n/a

Coupon Dates: Jun 1

Maturity Date: Jun 1

Dated Date: 7/1/2001

Next Call: 6/1/2011

Purpose: Water

Insurance: n/a

Coupon Dates: Jun 1 / Dec 1

Maturity Date: Jun 1

Existing Debt – Water

BB&T Contract

FY	Coupon	Principal	Interest	Total
Total		51,502	2,151	53,653
2016		6,229	484	6,713
2017		12,634	792	13,426
2018		12,873	554	13,427
2019		13,116	259	13,375
2020		6,650	62	6,712
2021				-
2022				-
2023				-
2024				-
2025				-
2026				-
2027				-
2028				-
2029				-
2030				-
2031				-
2032				-
2033				-
2034				-

First Citizens Loan

FY	Coupon	Principal	Interest	Total
Total		47,000	1,750	48,750
2016		-	-	-
2017		11,757	430	12,187
2018		11,532	656	12,188
2019		11,746	441	12,187
2020		11,965	223	12,188
2021				-
2022				-
2023				-
2024				-
2025				-
2026				-
2027				-
2028				-
2029				-
2030				-
2031				-
2032				-
2033				-
2034				-

Dated Date: unknown

Next Call: unknown

Purpose: Water

Insurance: unknown

Coupon Dates: unknown

Maturity Date: unknown

Dated Date: unknown

Next Call: unknown

Purpose: Water

Insurance: unknown

Coupon Dates: unknown

Maturity Date: unknown

Appendix B

Annual Flow Projections

Annual Flow Projections

Fiscal Year	Town Limits			Town Limits & ETJ			Town Limits, ETJ & Chatham Park		
	Gallons Per Day	Annual Gallons	City of Sanford Allocation ¹	Gallons Per Day	Annual Gallons	City of Sanford Allocation ¹	Gallons Per Day	Annual Gallons	City of Sanford Allocation ¹
1 2015	520,000	189,800,000	189,800,000	520,000	189,800,000	189,800,000	520,000	189,800,000	189,800,000
2 2016	523,940	191,238,043	191,238,043	566,760	206,867,287	206,867,287	613,307	223,857,189	223,857,189
3 2017	527,910	192,686,982	192,686,982	617,724	225,469,307	225,469,307	723,358	264,025,507	264,025,507
4 2018	531,909	194,146,899	194,146,899	673,271	245,744,067	245,744,067	853,155	311,401,517	311,401,517
5 2019	535,939	195,617,877	195,617,877	733,814	267,841,984	267,841,984	1,006,243	367,278,548	367,278,548
6 2020	540,000	197,100,000	197,100,000	799,800	291,927,000	291,927,000	1,186,800	433,182,000	433,182,000
7 2021	544,136	198,609,695	198,609,695	852,285	311,083,891	311,083,891	1,349,610	492,607,712	492,607,712
8 2022	548,304	200,130,954	200,130,954	908,213	331,497,900	331,497,900	1,534,755	560,185,690	560,185,690
9 2023	552,504	201,663,864	201,663,864	967,812	353,251,520	353,251,520	1,745,299	637,034,297	637,034,297
10 2024	556,736	203,208,517	203,208,517	1,031,322	376,432,662	376,432,662	1,984,727	724,425,317	724,425,317
11 2025	561,000	204,765,000	204,765,000	1,099,000	401,135,000	401,135,000	2,257,000	823,805,000	730,000,000
12 2026	565,333	206,346,385	206,346,385	1,153,385	420,985,345	420,985,345	2,424,773	885,042,231	730,000,000
13 2027	569,699	207,939,983	207,939,983	1,210,460	441,817,993	441,817,993	2,605,018	950,831,509	730,000,000
14 2028	574,098	209,545,887	209,545,887	1,270,360	463,681,554	463,681,554	2,798,661	1,021,511,207	730,000,000
15 2029	578,532	211,164,195	211,164,195	1,333,225	486,627,043	486,627,043	3,006,698	1,097,444,854	730,000,000
16 2030	583,000	212,795,000	212,795,000	1,399,200	510,708,000	510,708,000	3,230,200	1,179,023,000	730,000,000
17 2031	587,568	214,462,268	214,462,268	1,464,228	534,443,259	534,443,259	3,438,661	1,255,111,208	730,000,000
18 2032	592,172	216,142,599	216,142,599	1,532,278	559,281,620	559,281,620	3,660,575	1,336,109,765	730,000,000
19 2033	596,811	217,836,096	217,836,096	1,603,491	585,274,348	585,274,348	3,896,810	1,422,335,561	730,000,000
20 2034	601,487	219,542,862	219,542,862	1,678,014	612,475,094	612,475,094	4,148,290	1,514,125,936	730,000,000
21 2035	606,200	221,263,000	221,263,000	1,756,000	640,940,000	640,940,000	4,416,000	1,611,840,000	730,000,000
22 2036	606,200	221,263,000	221,263,000	1,756,000	640,940,000	640,940,000	4,416,000	1,611,840,000	730,000,000
23 2037	606,200	221,263,000	221,263,000	1,756,000	640,940,000	640,940,000	4,416,000	1,611,840,000	730,000,000
24 2038	606,200	221,263,000	221,263,000	1,756,000	640,940,000	640,940,000	4,416,000	1,611,840,000	730,000,000
25 2039	606,200	221,263,000	221,263,000	1,756,000	640,940,000	640,940,000	4,416,000	1,611,840,000	730,000,000
26 2040	606,200	221,263,000	221,263,000	1,756,000	640,940,000	640,940,000	4,416,000	1,611,840,000	730,000,000
27 2041	606,200	221,263,000	221,263,000	1,756,000	640,940,000	640,940,000	4,416,000	1,611,840,000	730,000,000
28 2042	606,200	221,263,000	221,263,000	1,756,000	640,940,000	640,940,000	4,416,000	1,611,840,000	730,000,000
29 2043	606,200	221,263,000	221,263,000	1,756,000	640,940,000	640,940,000	4,416,000	1,611,840,000	730,000,000
30 2044	606,200	221,263,000	221,263,000	1,756,000	640,940,000	640,940,000	4,416,000	1,611,840,000	730,000,000
31 2045	606,200	221,263,000	221,263,000	1,756,000	640,940,000	640,940,000	4,416,000	1,611,840,000	730,000,000
32 2046	606,200	221,263,000	221,263,000	1,756,000	640,940,000	640,940,000	4,416,000	1,611,840,000	730,000,000
33 2047	606,200	221,263,000	221,263,000	1,756,000	640,940,000	640,940,000	4,416,000	1,611,840,000	730,000,000
34 2048	606,200	221,263,000	221,263,000	1,756,000	640,940,000	640,940,000	4,416,000	1,611,840,000	730,000,000
35 2049	606,200	221,263,000	221,263,000	1,756,000	640,940,000	640,940,000	4,416,000	1,611,840,000	730,000,000

¹ City of Sanford Allocation is capped at 2 MGD or 730,000,000 Gallons per year.

Note: Future years beyond FY 2035 are assumed to remain flat at the 2035 level.

Note: Wooten Report provides projections for FY 2020, 2025, 2030, and 2035. Interim years are estimated based upon the applicable compound annual growth rate.

Note: Projected flows are shown on a calendar year basis. Projected Fiscal Year Flows are assumed to track Calendar Year Flows.

Appendix C

Sanford Rate Component 2: Capacity Charge Case Details

Sanford Rate Component 2: Capacity Charge

Option 1: Fixed Annual Payments

Capacity Charge

- Pittsboro shall pay to Sanford a Capacity Charge to partially reimburse Sanford for certain capital improvements to the Sanford Water Reclamation Facility constructed prior to the Effective Date of this Agreement. Pittsboro agrees to pay a proportionate share of said costs calculated at 16.67% of the principal balance of Sanford's long term bond indebtedness as of June 30, 2016 amortized over a term of not more than 25 years at 3.51% payable as follows:
 - In equal annual installments beginning on the first anniversary of the connection of the Pittsboro force main to the Sanford Water Reclamation Facility.

Option 1 Capacity Charge Calculation – Fixed Annual Payments

A	B	C	D	E
Fiscal Year	Principal	Interest	Total Payment	Principal Balance
2019	\$ -	\$ -	\$ -	\$ 7,357,494
2020	188,645	258,248	446,893	7,168,849
2021	195,267	251,627	446,893	6,973,582
2022	202,121	244,773	446,893	6,771,461
2023	209,215	237,678	446,893	6,562,246
2024	216,559	230,335	446,893	6,345,687
2025	224,160	222,734	446,893	6,121,527
2026	232,028	214,866	446,893	5,889,499
2027	240,172	206,721	446,893	5,649,327
2028	248,602	198,291	446,893	5,400,725
2029	257,328	189,565	446,893	5,143,397
2030	266,360	180,533	446,893	4,877,037
2031	275,709	171,184	446,893	4,601,328
2032	285,387	161,507	446,893	4,315,941
2033	295,404	151,490	446,893	4,020,537
2034	305,773	141,121	446,893	3,714,764
2035	316,505	130,388	446,893	3,398,259
2036	327,615	119,279	446,893	3,070,644
2037	339,114	107,780	446,893	2,731,530
2038	351,017	95,877	446,893	2,380,514
2039	363,337	83,556	446,893	2,017,176
2040	376,091	70,803	446,893	1,641,086
2041	389,291	57,602	446,893	1,251,794
2042	402,955	43,938	446,893	848,839
2043	417,099	29,794	446,893	431,739
2044	431,739	15,154	446,893	-
Total	\$ 7,357,494	\$ 3,814,843	\$ 11,172,337	

Note: Assumes 25 level payments at 3.51%.

Sanford Rate Component 2: Capacity Charge

Option 2: Variable Annual Payments

Capacity Charge

- Pittsboro shall pay to Sanford a Capacity Charge to partially reimburse Sanford for certain capital improvements to the Sanford Water Reclamation Facility constructed prior to the Effective Date of this Agreement. Pittsboro agrees to pay a proportionate share of said costs calculated at 16.67% of the principal balance of Sanford's long term bond indebtedness as of June 30, 2016 amortized over a term of not more than 25 years at 3.51% payable as follows:
 - As a "Unit Price" for each 1,000 U.S. gallons of Wastewater transmitted by Pittsboro to Sanford's Water Reclamation Facility. The unit price shall be calculated so as to repay the capacity charge over a term of 25 years with interest as aforesaid upon the projected flow on a monthly basis as billed by Sanford.
 - The Capacity Charge may be prepaid in whole or in part at any time by Pittsboro.
- Based upon Davenport's understanding of this Option, the fixed unit charge would be set at the outset of the Agreement and annual payments would be based upon actual flows.
 - It is further assumed that if the annual payment based upon actual flows is not sufficient to repay the interest accrued on the outstanding balance, the difference in interest will accrue to the balance of the Capacity Charge.
 - If there is a balance remaining on the Capacity Charge at the end of the 25 year term, it is assumed that amount is due and payable to Sanford.

Option 2 Capacity Charge Calculation – Cases Analyzed

- In order to provide perspective on how these payments could evolve under various flows, the following Cases have been analyzed:
 - Base Case: Town Limit, ETJ and Chatham Park Flows as Projected
 - Sensitivity Case 1: Only Town Limit Flows Materialize as Projected
 - Sensitivity Case 2: Only Town Limit and ETJ Flows Materialize as Projected
 - Sensitivity Case 3: Town Limit, ETJ and Chatham Park Flows Reduced by 1/3 Over the First 10 Years
 - Sensitivity Case 4: Town Limit, ETJ and Chatham Park Flows at Maximum 2 MGD Beginning in FY 2020

Sanford Rate Component 2: Capacity Charge

Option 2 Base Case: Town Limit, ETJ and Chatham Park Flows as Projected

A	B	C	D	E	F	G	H	I
FY	Flow (1,000 gal)	Unit Price	Payment	Rate	Principal	Interest	Total	Balance Outstanding
2019								7,357,494
2020	433,182	\$ 0.65	282,764	3.51%	24,516	258,248	282,764	7,332,978
2021	492,608	\$ 0.65	321,555	3.51%	64,167	257,388	321,555	7,268,810
2022	560,186	\$ 0.65	365,667	3.51%	110,532	255,135	365,667	7,158,278
2023	637,034	\$ 0.65	415,831	3.51%	164,575	251,256	415,831	6,993,703
2024	724,425	\$ 0.65	472,876	3.51%	227,398	245,479	472,876	6,766,305
2025	730,000	\$ 0.65	476,515	3.51%	239,018	237,497	476,515	6,527,287
2026	730,000	\$ 0.65	476,515	3.51%	247,408	229,108	476,515	6,279,880
2027	730,000	\$ 0.65	476,515	3.51%	256,092	220,424	476,515	6,023,788
2028	730,000	\$ 0.65	476,515	3.51%	265,080	211,435	476,515	5,758,707
2029	730,000	\$ 0.65	476,515	3.51%	274,385	202,131	476,515	5,484,323
2030	730,000	\$ 0.65	476,515	3.51%	284,016	192,500	476,515	5,200,307
2031	730,000	\$ 0.65	476,515	3.51%	293,985	182,531	476,515	4,906,322
2032	730,000	\$ 0.65	476,515	3.51%	304,303	172,212	476,515	4,602,019
2033	730,000	\$ 0.65	476,515	3.51%	314,985	161,531	476,515	4,287,034
2034	730,000	\$ 0.65	476,515	3.51%	326,041	150,475	476,515	3,960,994
2035	730,000	\$ 0.65	476,515	3.51%	337,485	139,031	476,515	3,623,509
2036	730,000	\$ 0.65	476,515	3.51%	349,330	127,185	476,515	3,274,179
2037	730,000	\$ 0.65	476,515	3.51%	361,592	114,924	476,515	2,912,587
2038	730,000	\$ 0.65	476,515	3.51%	374,284	102,232	476,515	2,538,304
2039	730,000	\$ 0.65	476,515	3.51%	387,421	89,094	476,515	2,150,883
2040	730,000	\$ 0.65	476,515	3.51%	401,019	75,496	476,515	1,749,863
2041	730,000	\$ 0.65	476,515	3.51%	415,095	61,420	476,515	1,334,768
2042	730,000	\$ 0.65	476,515	3.51%	429,665	46,850	476,515	905,103
2043	730,000	\$ 0.65	476,515	3.51%	444,746	31,769	476,515	460,357
2044	730,000	\$ 0.65	476,515	3.51%	460,357	16,159	476,515	0
Total			11,389,002		7,357,494	4,031,508	11,389,002	
Summary								
Total Annual Principal Payments			7,357,494					
Total Annual Interest Payments			4,031,508					
Total			11,389,002					
FY 2044 Balloon Payment			0					
Grand Total			11,389,002					

Sanford Rate Component 2: Capacity Charge

Summary Comparison

A	B	C	D	E	F	G
Fiscal Year	Option 1	Option 2: Variable Annual Payments Based on Flow				
	Fixed Annual Payment	Base Case	Sensitivity Case 1 ¹	Sensitivity Case 2 ¹	Sensitivity Case 3 ¹	Sensitivity Case 4 ¹
Description			Only Town Limit Flows Materialize	Only Town Limit and ETJ Flows Materialize	Town Limit, ETJ and Chatham Park Flows Reduced by 1/3 Over the First 10 Years	Town Limit, ETJ and Chatham Park Flows at Maximum 2 MGD Beginning in FY 2020
Estimated Payments						
1 2020	446,893	\$ 282,764	\$ 128,659	\$ 190,559	\$ 188,509	\$ 476,515
2 2021	446,893	321,555	129,645	203,063	214,370	476,515
3 2022	446,893	365,667	130,638	216,389	243,778	476,515
4 2023	446,893	415,831	131,638	230,589	277,221	476,515
5 2024	446,893	472,876	132,647	245,720	315,251	476,515
6 2025	446,893	476,515	133,663	261,845	358,498	476,515
7 2026	446,893	476,515	134,695	274,803	385,147	476,515
8 2027	446,893	476,515	135,735	288,401	413,777	476,515
9 2028	446,893	476,515	136,783	302,673	444,535	476,515
10 2029	446,893	476,515	137,840	317,651	477,579	476,515
11 2030	446,893	476,515	138,904	333,370	476,515	476,515
12 2031	446,893	476,515	139,993	348,864	476,515	476,515
13 2032	446,893	476,515	141,089	365,077	476,515	476,515
14 2033	446,893	476,515	142,195	382,044	476,515	476,515
15 2034	446,893	476,515	143,309	399,800	476,515	476,515
16 2035	446,893	476,515	144,432	418,381	476,515	476,515
17 2036	446,893	476,515	144,432	418,381	476,515	476,515
18 2037	446,893	476,515	144,432	418,381	476,515	476,515
19 2038	446,893	476,515	144,432	418,381	476,515	476,515
20 2039	446,893	476,515	144,432	418,381	476,515	476,515
21 2040	446,893	476,515	144,432	418,381	476,515	476,515
22 2041	446,893	476,515	144,432	418,381	476,515	476,515
23 2042	446,893	476,515	144,432	418,381	476,515	303,336
24 2043	446,893	476,515	144,432	418,381	476,515	-
25 2044	446,893	476,515	144,432	418,381	476,515	-
26 Total Annual Repayments	\$ 11,172,337	\$ 11,389,002	\$ 3,481,750	\$ 8,544,654	\$ 10,466,398	\$ 10,786,675
27 FY 2044 Balloon Payment	-	0	12,049,333	4,851,621	1,877,200	0
28 Total Repayment	\$ 11,172,337	\$ 11,389,002	\$ 15,531,084	\$ 13,396,275	\$ 12,343,597	\$ 10,786,675

¹ Assumes that the unit cost is set at \$0.65 at the outset of the Agreement based upon the projected flows as shown in the Base Case.

Sanford Rate Component 2: Capacity Charge

Option 2 Sensitivity Case 1: Only Town Limit Flows Materialize

A	B	C	D	E	F	G	H	I
FY	Flow (1000 gal)	Unit Price ¹	Payment	Rate	Principal	Interest	Total	Balance Outstanding
2019								7,357,494
2020	197,100	\$ 0.65	128,659	3.51%	(129,589)	258,248	128,659	7,487,083
2021	198,610	\$ 0.65	129,645	3.51%	(133,152)	262,797	129,645	7,620,235
2022	200,131	\$ 0.65	130,638	3.51%	(136,833)	267,470	130,638	7,757,067
2023	201,664	\$ 0.65	131,638	3.51%	(140,635)	272,273	131,638	7,897,702
2024	203,209	\$ 0.65	132,647	3.51%	(144,563)	277,209	132,647	8,042,265
2025	204,765	\$ 0.65	133,663	3.51%	(148,621)	282,284	133,663	8,190,886
2026	206,346	\$ 0.65	134,695	3.51%	(152,805)	287,500	134,695	8,343,691
2027	207,940	\$ 0.65	135,735	3.51%	(157,128)	292,864	135,735	8,500,820
2028	209,546	\$ 0.65	136,783	3.51%	(161,595)	298,379	136,783	8,662,415
2029	211,164	\$ 0.65	137,840	3.51%	(166,211)	304,051	137,840	8,828,626
2030	212,795	\$ 0.65	138,904	3.51%	(170,981)	309,885	138,904	8,999,607
2031	214,462	\$ 0.65	139,993	3.51%	(175,894)	315,886	139,993	9,175,500
2032	216,143	\$ 0.65	141,089	3.51%	(180,971)	322,060	141,089	9,356,471
2033	217,836	\$ 0.65	142,195	3.51%	(186,217)	328,412	142,195	9,542,688
2034	219,543	\$ 0.65	143,309	3.51%	(191,639)	334,948	143,309	9,734,328
2035	221,263	\$ 0.65	144,432	3.51%	(197,243)	341,675	144,432	9,931,571
2036	221,263	\$ 0.65	144,432	3.51%	(204,166)	348,598	144,432	10,135,737
2037	221,263	\$ 0.65	144,432	3.51%	(211,333)	355,764	144,432	10,347,070
2038	221,263	\$ 0.65	144,432	3.51%	(218,750)	363,182	144,432	10,565,820
2039	221,263	\$ 0.65	144,432	3.51%	(226,428)	370,860	144,432	10,792,248
2040	221,263	\$ 0.65	144,432	3.51%	(234,376)	378,808	144,432	11,026,624
2041	221,263	\$ 0.65	144,432	3.51%	(242,603)	387,035	144,432	11,269,227
2042	221,263	\$ 0.65	144,432	3.51%	(251,118)	395,550	144,432	11,520,345
2043	221,263	\$ 0.65	144,432	3.51%	(259,932)	404,364	144,432	11,780,278
2044	221,263	\$ 0.65	144,432	3.51%	(269,056)	413,488	144,432	12,049,333
Total			3,481,750		(4,691,839)	8,173,590	3,481,750	
Summary								
			Total Annual Principal Payments		(4,691,839)			
			Total Annual Interest Payments		8,173,590			
			Total		3,481,750			
			FY 2044 Balloon Payment		12,049,333			
			Grand Total		15,531,084			

¹ Assumes that the unit cost is set at \$0.65 at the outset of the Agreement based upon the projected flows as shown in the Base Case.

Sanford Rate Component 2: Capacity Charge

Option 2 Sensitivity Case 2: Only Town Limit and ETJ Flows Materialize

A	B	C	D	E	F	G	H	I
FY	Flow (1000 gal)	Unit Price ¹	Payment	Rate	Principal	Interest	Total	Balance Outstanding
2019								7,357,494
2020	291,927	\$ 0.65	190,559	3.51%	(67,690)	258,248	190,559	7,425,184
2021	311,084	\$ 0.65	203,063	3.51%	(57,561)	260,624	203,063	7,482,744
2022	331,498	\$ 0.65	216,389	3.51%	(46,255)	262,644	216,389	7,529,000
2023	353,252	\$ 0.65	230,589	3.51%	(33,679)	264,268	230,589	7,562,679
2024	376,433	\$ 0.65	245,720	3.51%	(19,730)	265,450	245,720	7,582,408
2025	401,135	\$ 0.65	261,845	3.51%	(4,297)	266,143	261,845	7,586,706
2026	420,985	\$ 0.65	274,803	3.51%	8,509	266,293	274,803	7,578,196
2027	441,818	\$ 0.65	288,401	3.51%	22,407	265,995	288,401	7,555,789
2028	463,682	\$ 0.65	302,673	3.51%	37,465	265,208	302,673	7,518,324
2029	486,627	\$ 0.65	317,651	3.51%	53,758	263,893	317,651	7,464,567
2030	510,708	\$ 0.65	333,370	3.51%	71,364	262,006	333,370	7,393,203
2031	534,443	\$ 0.65	348,864	3.51%	89,362	259,501	348,864	7,303,840
2032	559,282	\$ 0.65	365,077	3.51%	108,712	256,365	365,077	7,195,128
2033	585,274	\$ 0.65	382,044	3.51%	129,495	252,549	382,044	7,065,633
2034	612,475	\$ 0.65	399,800	3.51%	151,796	248,004	399,800	6,913,837
2035	640,940	\$ 0.65	418,381	3.51%	175,705	242,676	418,381	6,738,132
2036	640,940	\$ 0.65	418,381	3.51%	181,872	236,508	418,381	6,556,260
2037	640,940	\$ 0.65	418,381	3.51%	188,256	230,125	418,381	6,368,004
2038	640,940	\$ 0.65	418,381	3.51%	194,864	223,517	418,381	6,173,141
2039	640,940	\$ 0.65	418,381	3.51%	201,703	216,677	418,381	5,971,437
2040	640,940	\$ 0.65	418,381	3.51%	208,783	209,597	418,381	5,762,654
2041	640,940	\$ 0.65	418,381	3.51%	216,111	202,269	418,381	5,546,543
2042	640,940	\$ 0.65	418,381	3.51%	223,697	194,684	418,381	5,322,846
2043	640,940	\$ 0.65	418,381	3.51%	231,549	186,832	418,381	5,091,297
2044	640,940	\$ 0.65	418,381	3.51%	239,676	178,705	418,381	4,851,621
Total			8,544,654		2,505,873	6,038,781	8,544,654	
Summary								
			Total Annual Principal Payments		2,505,873			
			Total Annual Interest Payments		6,038,781			
			Total		8,544,654			
			FY 2044 Balloon Payment		4,851,621			
			Grand Total		13,396,275			

¹ Assumes that the unit cost is set at \$0.65 at the outset of the Agreement based upon the projected flows as shown in the Base Case.

Sanford Rate Component 2: Capacity Charge

Option 2 Sensitivity Case 3: Town Limit, ETJ and Chatham Park Flows Reduced by 1/3 Over the First 10 Years

A	B	C	D	E	F	G	H	I
FY	Flow (1000 gal)	Unit Price ¹	Payment	Rate	Principal	Interest	Total	Balance Outstanding
2019								7,357,494
2020	288,788	\$ 0.65	188,509	3.51%	(69,739)	258,248	188,509	7,427,233
2021	328,405	\$ 0.65	214,370	3.51%	(46,326)	260,696	214,370	7,473,558
2022	373,457	\$ 0.65	243,778	3.51%	(18,544)	262,322	243,778	7,492,102
2023	424,690	\$ 0.65	277,221	3.51%	14,248	262,973	277,221	7,477,854
2024	482,950	\$ 0.65	315,251	3.51%	52,778	262,473	315,251	7,425,076
2025	549,203	\$ 0.65	358,498	3.51%	97,878	260,620	358,498	7,327,198
2026	590,028	\$ 0.65	385,147	3.51%	127,963	257,185	385,147	7,199,235
2027	633,888	\$ 0.65	413,777	3.51%	161,084	252,693	413,777	7,038,151
2028	681,007	\$ 0.65	444,535	3.51%	197,496	247,039	444,535	6,840,655
2029	731,630	\$ 0.65	477,579	3.51%	237,472	240,107	477,579	6,603,183
2030	730,000	\$ 0.65	476,515	3.51%	244,744	231,772	476,515	6,358,439
2031	730,000	\$ 0.65	476,515	3.51%	253,334	223,181	476,515	6,105,105
2032	730,000	\$ 0.65	476,515	3.51%	262,226	214,289	476,515	5,842,879
2033	730,000	\$ 0.65	476,515	3.51%	271,430	205,085	476,515	5,571,448
2034	730,000	\$ 0.65	476,515	3.51%	280,958	195,558	476,515	5,290,491
2035	730,000	\$ 0.65	476,515	3.51%	290,819	185,696	476,515	4,999,672
2036	730,000	\$ 0.65	476,515	3.51%	301,027	175,488	476,515	4,698,645
2037	730,000	\$ 0.65	476,515	3.51%	311,593	164,922	476,515	4,387,052
2038	730,000	\$ 0.65	476,515	3.51%	322,530	153,986	476,515	4,064,522
2039	730,000	\$ 0.65	476,515	3.51%	333,851	142,665	476,515	3,730,671
2040	730,000	\$ 0.65	476,515	3.51%	345,569	130,947	476,515	3,385,102
2041	730,000	\$ 0.65	476,515	3.51%	357,698	118,817	476,515	3,027,404
2042	730,000	\$ 0.65	476,515	3.51%	370,254	106,262	476,515	2,657,150
2043	730,000	\$ 0.65	476,515	3.51%	383,249	93,266	476,515	2,273,901
2044	730,000	\$ 0.65	476,515	3.51%	396,701	79,814	476,515	1,877,200
Total			10,466,398		5,480,294	4,986,103	10,466,398	
Summary								
			Total Annual Principal Payments		5,480,294			
			Total Annual Interest Payments		4,986,103			
			Total		10,466,398			
			FY 2044 Balloon Payment		1,877,200			
			Grand Total		12,343,597			

¹ Assumes that the unit cost is set at \$0.65 at the outset of the Agreement based upon the projected flows as shown in the Base Case.

Sanford Rate Component 2: Capacity Charge

Option 2 Sensitivity Case 4: Town Limit, ETJ and Chatham Park Flows at Maximum 2 MGD Beginning in FY 2020

A	B	C	D	E	F	G	H	I
FY	Flow (1000 gal)	Unit Price ¹	Payment	Rate	Principal	Interest	Total	Balance Outstanding
2019								7,357,494
2020	730,000	\$ 0.65	476,515	3.51%	218,267	258,248	476,515	7,357,494
2021	730,000	\$ 0.65	476,515	3.51%	225,929	258,248	476,515	6,913,298
2022	730,000	\$ 0.65	476,515	3.51%	233,859	242,657	476,515	6,679,439
2023	730,000	\$ 0.65	476,515	3.51%	242,067	234,448	476,515	6,437,372
2024	730,000	\$ 0.65	476,515	3.51%	250,564	225,952	476,515	6,186,809
2025	730,000	\$ 0.65	476,515	3.51%	259,358	217,157	476,515	5,927,450
2026	730,000	\$ 0.65	476,515	3.51%	268,462	208,054	476,515	5,658,988
2027	730,000	\$ 0.65	476,515	3.51%	277,885	198,630	476,515	5,381,103
2028	730,000	\$ 0.65	476,515	3.51%	287,639	188,877	476,515	5,093,465
2029	730,000	\$ 0.65	476,515	3.51%	297,735	178,781	476,515	4,795,730
2030	730,000	\$ 0.65	476,515	3.51%	308,185	168,330	476,515	4,487,545
2031	730,000	\$ 0.65	476,515	3.51%	319,003	157,513	476,515	4,168,542
2032	730,000	\$ 0.65	476,515	3.51%	330,200	146,316	476,515	3,838,343
2033	730,000	\$ 0.65	476,515	3.51%	341,790	134,726	476,515	3,496,553
2034	730,000	\$ 0.65	476,515	3.51%	353,786	122,729	476,515	3,142,767
2035	730,000	\$ 0.65	476,515	3.51%	366,204	110,311	476,515	2,776,562
2036	730,000	\$ 0.65	476,515	3.51%	379,058	97,457	476,515	2,397,504
2037	730,000	\$ 0.65	476,515	3.51%	392,363	84,152	476,515	2,005,141
2038	730,000	\$ 0.65	476,515	3.51%	406,135	70,380	476,515	1,599,006
2039	730,000	\$ 0.65	476,515	3.51%	420,390	56,125	476,515	1,178,616
2040	730,000	\$ 0.65	476,515	3.51%	435,146	41,369	476,515	743,470
2041	730,000	\$ 0.65	476,515	3.51%	450,420	26,096	476,515	293,050
2042	464,697	\$ 0.65	303,336	3.51%	293,050	10,286	303,336	0
2043								0
2044								0
Total			10,786,675		7,357,494	3,429,181	10,786,675	
Summary								
Total Annual Principal Payments			7,357,494					
Total Annual Interest Payments			3,429,181					
Total			10,786,675					
FY 2044 Balloon Payment			0					
Grand Total			10,786,675					

¹ Assumes that the unit cost is set at \$0.65 at the outset of the Agreement based upon the projected flows as shown in the Base Case.

Appendix D

Draft Sanford Agreement

Sanford Wastewater Treatment Agreement

Select Proposed Agreement Provisions

- Term:
 - The initial term of this Contract shall be 30 years from the date of execution, with automatic 10 year renewals unless earlier terminated as herein provided.

- Exclusivity:
 - Sanford shall be the sole wastewater treatment provider up to 2 MGD however Pittsboro may collect up to 0.5 MGD for reuse purposes.

- Pretreatment Program:
 - Pittsboro shall establish and conduct an industrial Pre-treatment program in accordance with Sanford's rules and regulations.

- Exceeding Reserved Capacity:
 - Pittsboro agrees that it will not transmit wastewater to Sanford on an average monthly/daily flow basis in excess of its wastewater treatment capacity reserved in this agreement. If treatment exceeds 2 MGD for specified time periods, overages shall be subject to an excess treatment charge of 150%.

- Improvement or Future Capacity:
 - Improvements and upgrades required and/or necessary for the efficient and cost effective operation of the Sanford Water Reclamation Facility applicable to the treatment of each gallon processed at the Facility shall be shared by Sanford and Pittsboro as an additional capacity fee.

- Bond Covenants:
 - If it is discovered that any provision of this Contract is inconsistent with bond covenants, the parties agree that they will work to resolve any inconsistencies or terminate this Contract. Each party agrees to disclose this Contract in any future bond issue if material to the issue.

Municipal Advisor Disclosure

The enclosed information relates to an existing or potential municipal advisor engagement.

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