Town of Angier

Harnett County, North Carolina

System Development Fee Update 2023

PROVIDED BY:

ENVIROLINK

April 4, 2023

Town of Angier

2023 System Development Fee Update

Timeline

Proposed Posting: April 5, 2023

Proposed Approval: June 6, 2023

Proposed Effective Date: July 1, 2023

Town of Angier

Harnett County, North Carolina

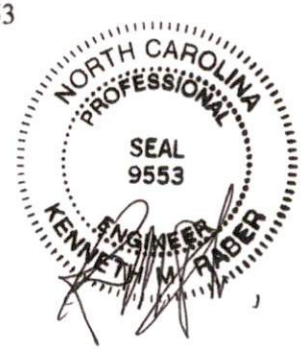
System Development Fee Update Analysis 2023

March 9, 2023

ENVIROLINK

Prepared by Envirolink, Inc.

I hereby certify this System Development Study for the Town of Angier was prepared under my direct supervision.
North Carolina Registration # 9553
Kenneth M. Raber, P.E.
March 9, 2023



OVERVIEW

The Town of Angier (Town) retained EnviroLink, Inc. to prepare an updated System Development Fee (SDF) analysis for Town's Water and Waste Water utility systems. The Town implemented its SDF in accordance with and to meet the requirements of General Statute 162A; Article 8; System Development Fees on July 1, 2018. In accordance with the requirements of General Statute 160A; Article 8; System Development Fees, the Town has completed this required 5-year update.

System development fees are one-time charges used to fund capital improvements necessary for the expansion of a utility system or to properly allocate the capital investment made by customers in the existing system that is available to serve new development or a combination thereof. The Town cannot implement or continue any form of "system development" charges or fees unless they are developed, reviewed, approved and administered in accordance with Article 8

The Town's **updated** SDF, for both Water and Waste Water, is based on Equivalent Residential Units (ERU) and an appropriate valuation of existing and planned (approved) facilities to be used by new development. The updated SDF, upon proper review and approval, will be a charge to be applied under the authority granted to the Town in accordance with General Statute 162A; Article 8; System Development Fees. Other types (sizes) of connections are evaluated by the Town on an individual basis with respect to the capacity proportional to ERU and the SDF for other size connections are increased proportionate to the standard ERU capacity. The proposed SDF for other connections has been developed and provided in this analysis.

The recommended updated SDF for the Town provided by this analysis is reasonably related to the capital facility demands of new development and / or the value of the existing system available for new development. This report documents the data, methodology, and results of the updated SDF analysis.

PROPOSED 2023 SYSTEM DEVELOPMENT FEE PER ERU

Water System	**Capital Assets**	=	**Equivalent Residential Unit (ERU) SDF**	**(Buy In)**	$	310
Water System	**CIP**	=	**Incremental Cost / ERU / CIP Plan SDF**		$	-
Water System			**System Development Fee per ERU**		$	310
Waste Water System	**Capital Assets**	=	**Equivalent Residential Unit (ERU) SDF**	**(Buy In)**	$	2,361
Waste Water System	**CIP**	=	**Incremental Cost / ERU / CIP Plan SDF**		$	-
Waste Water System			**System Development Fee per ERU**		$	2,361
			Total System Development Fee per ERU		$	2,671

REGULATORY REQUIREMENTS

In accordance with SESSION LAW 2017-138 HOUSE BILL 436 - AN ACT TO PROVIDE FOR UNIFORM AUTHORITY TO IMPLEMENT SYSTEM DEVELOPMENT FEES FOR PUBLIC WATER AND SEWER SYSTEMS IN NORTH CAROLINA AND TO CLARIFY THE APPLICABLE STATUTE OF LIMITATIONS; General Statute 162A; Article 8; System Development Fees was enacted wherein a "system development fee" is described as:

162A-201. Definitions.

(9) System development fee. – A charge or assessment for service imposed with respect to new development to fund costs of capital improvements necessitated by and attributable to such new development, to recoup costs of existing facilities which serve such new development, or a combination of those costs, as provided in this Article. The term includes amortized charges, lump-sum charges, and any other fee that functions as described by this definition regardless of terminology. The term does not include any of the following:

a. A charge or fee to pay the administrative, plan review, or inspection costs associated with permits required for development.

b. Tap or hookup charges for the purpose of reimbursing the local governmental unit for the actual cost of connecting the service unit to the system.

c. Availability charges.

d. Dedication of capital improvements on-site, adjacent, or ancillary to a development absent a written agreement providing for credit or reimbursement to the developer pursuant to G.S. 153A-280, 153A-451, 160A-320, 160A-499 or Part 3A of Article 18, Chapter 153A or Part 3D of Article 19, Chapter 160A of the General Statutes.

e. Reimbursement to the local governmental unit for its expenses in constructing or providing for water or sewer utility capital improvements adjacent or ancillary to the development if the owner or developer has agreed to be financially responsible for such expenses; however, such reimbursement shall be credited to any system development fee charged as set forth in G.S. 162A-207(c).

In addition, General Statute 162A; Article 8; System Development Fees provides that the SDF analysis meets the following conditions:

162A-205. Supporting analysis.

A system development fee shall be calculated based on a written analysis, which may constitute or be included in a capital improvements plan, that:

(1) Is prepared by a financial professional or a licensed professional engineer qualified by experience and training or education to employ generally accepted accounting, engineering, and planning methodologies to calculate system development fees for public water and sewer systems.

(2) Documents in reasonable detail the facts and data used in the analysis and their sufficiency and reliability.

(3) Employs generally accepted accounting, engineering, and planning methodologies, including the buy-in, incremental cost or marginal cost, and combined cost methods for each service, setting forth appropriate analysis as to the consideration and selection of a method appropriate to the circumstances and adapted as necessary to satisfy all requirements of this Article.

(4) Documents and demonstrates the reliable application of the methodologies to the facts and data, including all reasoning, analysis, and interim calculations underlying each identifiable component of the system development fee and the aggregate thereof.

(5) Identifies all assumptions and limiting conditions affecting the analysis and demonstrates that they do not materially undermine the reliability of conclusions reached.

(6) Calculates a final system development fee per service unit of new development and includes an equivalency or conversion table for use in determining the fees applicable for various categories of demand.
(7) Covers a planning horizon of not less than 10 years nor more than 20 years.
(8) Is adopted by resolution or ordinance of the local governmental unit in accordance with G.S. 162A-209.

The "service unit of new development" is based on the following definition:

162A-201. Definitions.
(8) Service unit. – A unit of measure, typically an equivalent residential unit, calculated in accordance with generally accepted engineering or planning standards.

In addition, there are certain minimum requirements required by the statute.

162A-207. Minimum requirements.
(a) Maximum. – A system development fee shall not exceed that calculated based on the system development fee analysis.
(b) Revenue Credit. – In applying the incremental cost or marginal cost, or the combined cost, method to calculate a system development fee with respect to water or sewer capital improvements, the system development fee analysis must include as part of that methodology a credit against the projected aggregate cost of water or sewer capital improvements. That credit shall be determined based upon generally accepted calculations and shall reflect a deduction of either the outstanding debt principal or the present value of projected water and sewer revenues received by the local governmental unit for the capital improvements necessitated by and attributable to such new development, anticipated over the course of the planning horizon. In no case shall the credit be less than twenty-five percent (25%) of the aggregate cost of capital improvements.
(c) Construction or Contributions Credit. – In calculating the system development fee with respect to new development, the local governmental unit shall credit the value of costs in excess of the development's proportionate share of connecting facilities required to be oversized for use of others outside of the development. No credit shall be applied, however, for water or sewer capital improvements on-site or to connect new development to water or sewer facilities.

AUTHORIZATION AND IMPLEMENTATION

The SDF proposed by the Town is authorized by General Statute 162A; Article 8; System Development Fees:

162A-203. Authorization of system development fee.
(a) A local governmental unit may adopt a system development fee for water or sewer service only in accordance with the conditions and limitations of this Article.
(b) A system development fee adopted by a local governmental unit under any lawful authority other than this Article and in effect on October 1, 2017, shall be conformed to the requirements of this Article not later than July 1, 2018.

Town is required by General Statute 162A; Article 8; System Development Fees to implement and maintain the proposed SDF through the following process:

162A-209. Adoption and periodic review.

(a) For not less than 45 days prior to considering the adoption of a system development fee analysis, the local governmental unit shall post the analysis on its Web site and solicit and furnish a means to submit written comments, which shall be considered by the preparer of the analysis for possible modifications or revisions.
(b) After expiration of the period for posting, the governing body of the local governmental unit shall conduct a public hearing prior to considering adoption of the analysis with any modifications or revisions. (c) The local governmental unit shall publish the system development fee in its annual budget or rate plan or ordinance. The local governmental unit shall update the system development fee analysis at least every five years.

COLLECTION AND USE OF REVENUE FROM SDF

162A-211. Use and administration of revenue.

(a) Revenue from system development fees calculated using the incremental cost method or marginal cost method, exclusively or as part of the combined cost method, shall be expended only to pay:

(1) Costs of constructing capital improvements including, and limited to, any of the following:

a. Construction contract prices.
b. Surveying and engineering fees.
c. Land acquisition cost.
d. Principal and interest on bonds, notes, or other obligations issued by or on behalf of the local governmental unit to finance any costs for an item listed in sub-subdivisions a. through c. of this subdivision.

(2) Professional fees incurred by the local governmental unit for preparation of the system development fee analysis.

(3) If no capital improvements are planned for construction within five years or the foregoing costs are otherwise paid or provided for, then principal and interest on bonds, notes, or other obligations issued by or on behalf of a local governmental unit to finance the construction or acquisition of existing capital improvements.

(b) Revenue from system development fees calculated using the buy-in method may be expended for previously completed capital improvements for which capacity exists and for capital rehabilitation projects. The basis for the buy-in calculation for previously completed capital improvements shall be determined by using a generally accepted method of valuing the actual or replacement costs of the capital improvement for which the buy-in fee is being collected less depreciation, debt credits, grants, and other generally accepted valuation adjustments.
(c) A local governmental unit may pledge a system development fee as security for the payment of debt service on a bond, note, or other obligation subject to compliance with the foregoing limitations.
(d) System development fee revenues shall be accounted for by means of a capital reserve fund established pursuant to Part 2 of Article 3 of Chapter 159 of the General Statutes and limited as to expenditure of funds in accordance with this section.

The Town is allowed to collect the SDF in when the following conditions are met:

162A-213. Time for collection of system development fees.

For new development involving the subdivision of land, the system development fee shall be collected by a local governmental unit either at the time of plat recordation or when water or sewer service for the subdivision or other development is committed by the local governmental unit. For

all other new development, the local governmental unit shall collect the system development fee at the time of application for connection of the individual unit of development to the service or facilities.

SYSTEM DEVELOPMENT FEE CALCULATION METHODOLOGY PER TOTAL EQUIVALENT RESIDENTIAL UNIT

The following methodology is used to calculate the System Development Fee Buy-In component:

SYSTEM CAPACITY (GPD)

(GPD) / EQUIVALENT RESIDENTIAL UNIT = TOTAL EQUIVALENT RESIDENTITAL UNITS (SYSTEM)
(Based on Capacity of Each System)

SYSTEM VALUE (REPLACEMENT COST NEW LESS DEPRECIATION - ADJUSTED FOR DEBT, ETC.)

TOTAL EQUIVALENT RESIDENTIAL UNITS (SYSTEM)

= SYSTEM DEVELOPMENT FEE (BUY-IN) / EQUIVALENT RESIDENTIAL UNIT

The following methodology is used to calculate the System Development Fee Incremental component:

TOTAL PROJECT COSTS (CIP 10 YR TERM) - [INTEREST + REMAINING PRINCIPAL (CIP 10 YR TERM)]

TOTAL EQUIVALENT RESIDENTIAL UNITS (SYSTEM)

= SYSTEM DEVELOPMENT FEE (INCREMENTAL) / EQUIVALENT RESIDENTIAL UNIT

DEVELOPMENT FEE CALCULATION METHODOLOGY

In accordance with General Statute 162A; Article 8; System Development Fees; (162A-205. Supporting analysis) ..."A system development fee shall be calculated based on a written analysis, which may constitute or be included in a capital improvements plan, that:

> (3) Employs generally accepted accounting, engineering, and planning methodologies, including the buy-in, incremental cost or marginal cost, and combined cost methods for each service, setting forth appropriate analysis as to the consideration and selection of a method appropriate to the circumstances and adapted as necessary to satisfy all requirements of this Article."

The 7th edition of AWWA's "Principles of Water Rates, Fees, and Charges" documents methods used to calculate system value using descriptions like those in GS162A; Article 8. AWWA defines the most common options to determine the value for system development charges include the "buy-in method", "incremental cost method" and "combined approach". These terms are:

1. The buy-in method is based on the value of the existing system's capacity. This method is typically used when the existing system has sufficient capacity to serve new development now and into the future.

2. The incremental cost method is based on the value or cost to expand the existing system's capacity. This method is typically used when the existing system has limited or no capacity to serve new development and new or incremental facilities are needed to serve new development now and into the future.

3. The combined approach is based on a blended value of both the existing and expanded system's capacity. This method is typically used where some capacity is available in parts of the existing system (e.g., source of supply), but new or incremental capacity will need to be built in other parts (e.g., treatment plant) to serve new development at some point in the future."

AWWA's "Principles of Water Rates, Fees and Charges" documents several options to calculate the value of the existing system's capacity.

"Validation and system equity. There are different methods used to establish a value to the existing assets under the buy-in methodology. If the existing assets are valued at their original cost or depreciated original cost, this is often referred to as the original cost method. An alternative valuation approach is to value the existing assets at a replacement cost or a depreciated replacement cost. This is commonly referred to as the replacement cost method. According to the replacement cost method, the existing system components are valued at the current-day cost of replicating the existing assets. This is typically accomplished through the use of a construction cost index or other comparable valuation method to bring the historical costs up to current-day value. In summary form the four valuation approaches for system assets under the buy-in method are as follows:

1. Original cost (OC) is the cost of construction in the year of construction.
2. Original cost less accumulated depreciation (OCLD) is also known as the net book value of the system assets.
3. Replacement cost new (RCN) is the original cost escalated to current-day dollars, providing an estimate of the current-day cost of replicating the existing facilities.
4. Replacement cost new less depreciation (RCNLD) is the original cost escalated to current-day dollars, less accumulated replacement cost depreciation. This provides an estimate of the current-day cost of duplicating the existing facilities that is then adjusted by an estimate of the replacement cost depreciation, resulting in a replacement cost valuation that reflects the remaining depreciable life of the facility."

"A combination of the approaches may also be used. Using the OC and OCLD valuations, the SDC reflects the original investment in the existing capacity. The new customer "buys in" to the capacity at the OC or the net book value cost (OCLD) for the facilities and as a result pays an amount similar to what the existing customers paid for the capacity (OC) or the remaining value of the original investment (OCLD)."

"Using the RCN and the RCNLD valuations, the SDC [System Development Charge] reasonably reflects the cost of providing new expansion capacity to customers as if the capacity was added at the time the new customers connected to the water system. <u>It may also be thought of as a valuation method to fairly compensate the existing customers for the carrying costs of the excess capacity built into the system in advance of when the new customers connect to the system. This is because, up to the point of the new customer connecting to the system, the existing customers have been financially responsible for the carrying costs of that excess capacity that is available for development.</u>

System liabilities and equity. Balance-sheet liabilities and equity that are recognized in the valuation method should equitably address the issue of the outstanding principal portion of long-term debt. When debt is issued to finance a growth- or expansion-related project, the principal portion of the debt service will be repaid over time, possibly through a customer's rates after connection to the system and payment of an SDC. Given that, a debt credit may be applicable to avoid the potential

double-charging of these debt costs through both the SDC and user rates. In a situation where the SDC is separated into functional components (source of supply, treatment, pumping, transmission, etc.), the analysis may provide these debt credits at the functional level or on a combined system level at the end of the analysis."

"Valuation adjustments may be necessary if grants or other contributions were used to develop the capacity-related facilities or if a facility is replaced and the resulting replacement provides additional capacity to accommodate future customers. This may be addressed within the valuation process by determining the percentage of the asset eligible for the SDC (i.e., percent SDC eligible). For example, if grants were provided specifically for the water treatment facilities, these grant contributions should be credited to the value (cost) of those specific facilities, and the grant-related portion of the water treatment plant's value should not be included in the SDC."

In addition, GS 162A-211 "Use and administration of revenue" paragraph (b) states "The basis for the buy-in calculation for previously completed capital improvements shall be determined by using a generally accepted method of valuing the actual or replacement costs of the capital improvement for which the buy-in fee is being collected less depreciation, debt credits, grants, and other generally accepted valuation adjustments." Therefore, the AWWA methodologies of OCLD or RCNLD meets the requirements of this section.

DEVELOPMENT FEE CALCULATION METHODOLOGY - BUY-IN CALCULATION

The "buy-in" methodology used to value the existing infrastructure is based on Replacement Cost New Less Depreciation (RCNLD) to properly value of the existing system infrastructure borne by the existing customers. The 2022 RSMeans Index (Appendix C) was used to determine the Replacement Cost New valuation. The current percentage depreciation for each asset was then used to determine the Replacement Cost New Less Depreciation value. Each system's value is then divided by the Town's total ERU for Water or Waste Water based on each system's capacity to determine the Buy -In SDF / ERU. See Table 1 (page 15) and Table 2 (page 16).

DEVELOPMENT FEE PROCESS CALCULATION METHODOLOGY - INCREMENTAL ASSET VALUATION

The "incremental cost" methodology is used when expenditures have been made for additional facilities that are needed to provide capacity or maintain service due to additional growth or use of the system. During the development and construction these additional facilities, these projects under construction would not be included as a current capital asset of the Town. However, funds have been expended by the Town and revenues have been collected from the Town's existing customers for these facilities. These revenues have recouped costs to date for payments for actual equipment or facilities or the payment to date of principal and interest as part of the project financing. As a result, the existing customers, through the rates, have made a principal investment in the new projects.

Therefore, it is appropriate to incorporate the valuation of these projects into the development of the Incremental SDF costs in order adequately address the existing principal cost born by existing customers. The SDF analysis methodology used determines the projected total cost, including the principal and interest over the term of CIP (Capital Improvement Plan). The SDF analysis then deducts the interest and outstanding principal over the CIP term to determine the principal paid to date to value the additional facilities. Since the project is under construction and has not been included in the depreciated assets of the Town, this is an appropriate approach to identify and value the asset for purposes of the SDF.

The "incremental cost" methodology described above is used to value facilities that are approved, for which funds have been expended and that are not included in the assets used by the "buy-in" methodology described in the preceding section. Each system's value of principal payments for ongoing projects is then divided by the Town's total ERU for Water or Waste Water based on each system's capacity to determine the Incremental SDF / ERU.

For the 2023 SDF update, there are no ongoing projects that have debt service costs (principal payments) that would be appropriate for the Incremental Asset Valuation.

SYSTEM INFRASTRUCTURE CAPACITY AND PROJECTS

The Town's Water system infrastructure has over 63 miles of distribution lines with an existing capacity of approximately 2.02 million Gallons per Day (MGD). The Town purchases water from Harnett County under contract for capacity up to 2.02 MGD. Average daily water usage was 0.572 MGD for 2022. The Town's Waste Water system infrastructure includes Permitted Capacity of 0.250 MGD and contract capacity with Harnett County for 1.000 MGD for a total of 1.258 MGD capacity. The average daily discharge was 0.535 MGD for 2022. The Town's recent rate analysis and rate projection study used an estimate of an annual growth rate of 3.0 percent.

The Town has identified the need for additional Water and Waste Water projects in order to maintain appropriate service pressure and volume to accommodate future growth. These projects are in the planning, design and development stages but no capital assets are in service.

WASTE WATER PUMP STATION #1 AND #6 (DEBT HAS BEEN ISSUED AND REDUCES ASSET VALUATION)
WASTE WATER CAPACITY PURCHASE
REPLACE OLD CORE WATER SYSTEM LINES
NEW 500K ELEVATED WATER TANK (DEBT HAS BEEN ISSUED AND REDUCES ASSET VALUATION)

RECENT REFINANCING AND RESULTING DEBT

During 2021, the Town initiated a $3,349,000 Water and Sewer Revenue Bond, Series 2021 A and a $2,869,000 Water and Sewer Revenue Refunding Bond, Series 2021 B. This issuance consolidated the Town's existing Water and Waste Water related debt and planned projects. This debt, as of March 1, 2023, has been incorporated into the analysis and the debt allocated between Water and Waste Water for the Asset Valuation is based on the best available information regarding the refinanced debt portions for Water or Waste Water and any specific Water or Waste Water project debt where available. The allocation analysis for Water or Waste Water debt is provided in Appendix B. Debt indentified in the projects above has been included and the system asset value has been reduced by the appropriate amounts.

EQUIVALENT RESIDENTIAL UNIT TOTAL

In accordance with GS 162A-205 (6); the analysis is required to calculate "... a final system development fee per service unit of new development and includes an equivalency or conversion table for use in determining the fees applicable for various categories of demand." GS 162A-201(8) defines Service unit as "A unit of measure, typically an equivalent residential unit, calculated in accordance with generally accepted engineering or planning standards." See Appendix D for detail.

For this analysis, the SDF per ERU is based on the Total Equivalent Residential Units by Capacity for the Town. The Equivalent Residential Unit (ERU) is based on a demand of 360 gallons per day (GPD). (*NC Administrative Code 15A NCAC02T.0114 for a three-bedroom home based on 120 GPD per bedroom) as the system design GPD per ERU. The Total ERUs for Water or Waste Water is determined by dividing the system capacity GPD by the single ERU demand of 360 GPD for water or 324 GPD for waste water.

Total Equivalent Residential Units by Capacity

Water	System Capacity MGD	2.020	MGD
	System Capacity GPD	2,020,000	GPD
	Equivalent Residential Unit GPD *	360	GPD / ERU
	Total Equivalent Residential Units by Capacity	5,611	ERU (Capacity Based)
* NC Administrative Code 15A NCAC02T.0114 for a three bedroom home based on 120 GPD per bedroom			
Waste Water	System Capacity MGD	1.258	MGD
	System Capacity GPD	1,258,000	GPD
	Equivalent Residential Unit GPD	324	GPD / ERU
	Total Equivalent Residential Unit by Capacity	3,883	ERU (Capacity Based)
* NC Administrative Code 15A NCAC02T.0114 for a three bedroom home based on 120 GPD per bedroom			X 90%

EQUIVALENT RESIDENTIAL UNIT ADJUSTMENT FOR LARGER CUSTOMERS

The SDF ERU for larger meters is determined by the SDF per ERU times the Capacity Factor to determent the representative ERU for larger capacity customers. The Capacity Factor methodology is consistent with industry standards and represent a reflection of the possible demand, and therefore capital cost of providing service for different meter sizes. The AWWA based Capacity Factor (Appendix E) is used to calculate SDF for "various categories of demand" which is based on the installed tap / meter size.

PROPOSED SYSTEM DEVELOPMENT FEES

The proposed 2023 SDF shown below for the Town was determined based on the calculated SDF, rounded down to the whole dollar. The calculated SDF was developed using the System Development Fee Methodology described previously and utilizes specific system information provided by the Town. The proposed SDF does not exceed the maximum calculated SDF as determined by this analysis.

Water System	Capital Assets	=	Equivalent Residential Unit (ERU) SDF	(Buy In)	$	310
Water System	CIP	=	Incremental Cost / ERU / CIP Plan SDF		$	-
Water System			System Development Fee per ERU		$	310
Waste Water System	Capital Assets	=	Equivalent Residential Unit (ERU) SDF	(Buy In)	$	2,361
Waste Water System	CIP	=	Incremental Cost / ERU / CIP Plan SDF		$	-
Waste Water System			System Development Fee per ERU		$	2,361
	Total System Development Fee per ERU				$	2,671

Meter Size	AWWA (GPM capacity)	Capacity Factor	Water SDF	Waste Water SDF	Total SDF
5/8 inch	20	1.00	$ 310.00	$ 2,361.00	$ 2,671.00
3/4 inch	30	1.50	$ 465.00	$ 3,541.50	$ 4,006.50
1 inch	50	2.50	$ 775.00	$ 5,902.50	$ 6,677.50
1-1/2 inch	100	5.00	$ 1,550.00	$ 11,805.00	$ 13,355.00
2 inch	160	8.00	$ 2,480.00	$ 18,888.00	$ 21,368.00
3 inch	300	15.00	$ 4,650.00	$ 35,415.00	$ 40,065.00
4 inch	500	25.00	$ 7,750.00	$ 59,025.00	$ 66,775.00
6 inch	1,000	50.00	$ 15,500.00	$ 118,050.00	$ 133,550.00

NOTE: Individual Residential meters will be assessed the SDF at the 5/8-inch rate regardless of meter / tap size up to 1 inch. Irrigation meters will be assessed at the actual meter / tap size.

CALCULATED SYSTEM DEVELOPMENT FEES

The actual, calculated 2023 SDF for the Town using the methodology and data provided in this analysis is shown in the table below. See Table 1 (page 15) and Table 2 (page 16).

Water System	Capital Assets	=	Equivalent Residential Unit (ERU) SDF	(Buy In)	$ 310.14
Water System	CIP	=	Incremental Cost / ERU / CIP Plan SDF	(Incremental)	$ -
	Water System		System Development Fee per ERU		$ 310.14
Waste Water System	Capital Assets	=	Equivalent Residential Unit (ERU) SDF	(Buy In)	$ 2,361.14
Waste Water System	CIP	=	Incremental Cost / ERU / CIP Plan SDF	(Incremental)	$ -
	Waste Water System		System Development Fee per ERU		$ 2,361.14
	Total System Development Fee per ERU				$ 2,671.28

Meter Size	AWWA (GPM capacity)	Capacity Factor	Water SDF	Waste Water SDF	Total SDF
5/8 inch	20	1.00	$ 310.14	$ 2,361.14	$ 2,671.28
3/4 inch	30	1.50	$ 465.21	$ 3,541.71	$ 4,006.92
1 inch	50	2.50	$ 775.34	$ 5,902.84	$ 6,678.18
1-1/2 inch	100	5.00	$ 1,550.69	$ 11,805.69	$ 13,356.38
2 inch	160	8.00	$ 2,481.10	$ 18,889.10	$ 21,370.20
3 inch	300	15.00	$ 4,652.06	$ 35,417.06	$ 40,069.12
4 inch	500	25.00	$ 7,753.44	$ 59,028.43	$ 66,781.87
6 inch	1,000	50.00	$ 15,506.88	$ 118,056.85	$ 133,563.73

NOTE: Individual Residential meters will be assessed the SDF at the 5/8 inch rate regardless of meter / tap size up to 1 inch. Irrigation meters will be assessed at the actual meter / tap size.

CALCULATION OF SYSTEM DEVELOPMENT FEES FOR WATER AND WASTE WATER

The following charts provide the calculation of each system's (Water or Waste Water) Replacement Cost New Less Depreciation, adjusted for outstanding debt and adjusted for any assets currently in service but not included in the 2022 assets to determine the system asset value.

The asset value for each system is then divided by the total Equivalent Residential Units of capacity for that system to determine the SDF per ERU.

WATER SYSTEM DEVELOPMENT ASSETS AND SDF CACULATION (TABLE 1)

Asset Line #	Water System Asset Description 2022 Asset List	[1] Original Cost	[2] Dep Yrs	[3] Accrued Depreciation	[4] Yr Install	[5] % Dep	[6] Ins Yr Index	[7] 2022 Index	[8] RCN Factor	[9] RCN	[10] RCNLD
89	Phase I - Water capacity	$ 625,000	40	$ 171,875	2011	27.50%	142.8	236.8	1.658	$ 1,036,415	$ 751,401
91	Deed of Easement PID 0406740055..	$ 45,000	40	$ 3,188	2019	7.08%	186.8	236.8	1.268	$ 57,045	$ 53,004
92	Topography Survey for Pump Station	$ 5,010	40	$ 261	2020	5.21%	198	236.8	1.196	$ 5,992	$ 5,680
93	Topography Survey for Pump Station	$ 5,047	40	$ 263	2020	5.21%	198	236.8	1.196	$ 6,036	$ 5,722
94	Topography Survey for Pump Station	$ 4,555	40	$ 237	2020	5.21%	198.0	236.8	1.196	$ 5,448	$ 5,164
27	Water line extension - Wimberly	$ 110,339	40	$ 82,754	1992	75.00%	75.56	236.8	3.134	$ 345,809	$ 86,454
28	Water line extension - Wimberly	$ 14,368	40	$ 10,685	1992	74.37%	75.56	236.8	3.134	$ 45,030	$ 11,542
31	Water line extension - Junny	$ 241,114	40	$ 175,310	1993	72.71%	77.31	236.8	3.063	$ 738,574	$ 201,570
33	Water line extension - Wimberly	$ 15,172	40	$ 10,905	1993	71.88%	77.31	236.8	3.063	$ 46,474	$ 13,071
34	Water rehab	$ 11,735	40	$ 7,334	1997	62.50%	85.74	236.8	2.762	$ 32,408	$ 12,153
35	Water lines & Sewer Split	$ 562,025	40	$ 351,266	1997	62.50%	85.74	236.8	2.762	$ 1,552,169	$ 582,063
36	Water line extension - HWY 210	$ 40,547	40	$ 25,342	1997	62.50%	85.74	236.8	2.762	$ 111,981	$ 41,993
37	Water line extension - Tramwood	$ 93,648	40	$ 53,848	1999	57.50%	89.39	236.8	2.649	$ 248,075	$ 105,432
39	Extension to water line	$ 41,970	40	$ 13,640	2009	32.50%	145.1	236.8	1.632	$ 68,493	$ 46,233
40	Valve bypass - McIver/Broad	$ 7,750	40	$ 2,519	2009	32.50%	145.1	236.8	1.632	$ 12,648	$ 8,537
41	Water lines - Cottages	$ 30,800	40	$ 6,160	2014	20.00%	161.6	236.8	1.465	$ 45,133	$ 36,106
42	Water lines- Phase 6	$ 35,200	40	$ 7,040	2014	20.00%	161.6	236.8	1.465	$ 51,580	$ 41,264
43	Shelter - 520 Campbell Street Split	$ 15,878	40	$ 3,176	2015	20.00%	167.6	236.8	1.413	$ 22,434	$ 17,947
45	Johnsons Landing (Kennabeck Booster)	$ 231,119	40	$ 34,668	2017	15.00%	175.8	236.8	1.347	$ 311,314	$ 264,617
46	Wake Co Elevated tank	$ 1,182,938	40	$ 98,578	2019	8.33%	186.8	236.8	1.268	$ 1,499,571	$ 1,374,607
49	88 Eclips 3 Bury Sampling Station	$ 16,437	40	$ 1,233	2019	7.50%	186.8	236.8	1.268	$ 20,836	$ 19,274
74	Campbell Street building Split	$ 83,536	40	$ 33,937	2007	40.63%	132.1	236.8	1.793	$ 149,746	$ 88,912
84	Rawls Church Road water lines	$ 381,165	40	$ 44,470	2018	11.67%	183.3	236.8	1.292	$ 492,416	$ 434,967
137	Scada system - Dora St water tank	$ 8,300	5	$ 5,395	2019	65.00%	186.8	236.8	1.268	$ 10,522	$ 3,683
22	Water & Sewer lines Split	$ 3,378	40	$ 3,210	1985	95.01%	67.6	236.8	3.503	$ 11,833	$ 590
23	Water & Sewer lines Split	$ 20,370	40	$ 18,334	1986	90.01%	67.41	236.8	3.513	$ 71,553	$ 7,151
24	Water & Sewer lines Split	$ 30,639	40	$ 27,192	1986	88.75%	67.41	236.8	3.513	$ 107,624	$ 12,107
25	Water line construction	$ 13,104	40	$ 11,304	1987	86.27%	70.22	236.8	3.372	$ 44,193	$ 6,069
26	Water line - North annex	$ 48,612	40	$ 40,307	1989	82.92%	73.74	236.8	3.211	$ 156,110	$ 26,671
	Water System	Value Replacement Cost New Less Depreciation									$ 4,263,981.58
Appendix B		Less Debt									$ 2,523,799.14
		Less Grants, Contributions, Etc.									$ -
											$ 2,523,799.14
	Water System	Value for System Development Fee /									$ 1,740,182.44
Appendix D	Water System	Total Equivalent Residential Units by Capacity									5,611
	Water System	= Equivalent Residential Unit (ERU) SDF									$ 310.14

[1]	June 30, 2022 Financial Data
[2]	June 30, 2022 Financial Data
[3]	June 30, 2022 Financial Data
[4]	June 30, 2022 Financial Data
[5]	Percent of Asset Depreciation [3]/[1]
[6]	RSMeans Index - Annual 2022 for Installed Date Appendix C
[7]	RSMeans Index - Annual 2022 Appendix C
[8]	Replacement Cost New Factor [7]/[6]
[9]	Replacement Cost New [1]X[8]
[10]	Replacement Cost New Less Depreciation ([1]-[5]) x [9]

WASTE WATER ASSETS AND SDF CALCULATION (TABLE 2)

Asset Line #	Waste Water System Asset Description 2022 Asset List	[1] Original Cost	[2] Dep Yrs	[3] Accrued Depreciation	[4] Yr Install	[5] % Dep	[6] Ins Yr Index	[7] 2022 Index	[8] RCN Factor	[9] RCN	[10] RCNLD
96	Trench box	$ 6,645	5	$ 5,708	2018	85.90%	183.3	236.8	1.292	$ 8,584	$ 1,210
90	Sewer capacity - Phase I	$ 1,400,000	40	$ 350,000	2012	25.00%	155.4	236.8	1.524	$ 2,133,333	$ 1,600,000
43	Shelter - 520 Campbell Street Split	$ 15,878	40	$ 3,176	2015	20.00%	167.6	236.8	1.413	$ 22,434	$ 17,947
58	Sewer rehab	$ 257,406	40	$ 196,272	1992	76.25%	75.56	236.8	3.134	$ 806,724	$ 191,596
60	Sewer plant	$ 40,813	40	$ 29,590	1993	72.50%	77.31	236.8	3.063	$ 125,017	$ 34,379
61	Water & sewer lines	$ 8,594	40	$ 5,783	1995	67.29%	81.79	236.8	2.895	$ 24,881	$ 8,138
62	Sewer rehab	$ 84,824	40	$ 55,135	1996	65.00%	83.77	236.8	2.827	$ 239,788	$ 83,926
63	Waste water treatment plant	$ 1,353,230	40	$ 880,575	1996	65.07%	83.77	236.8	2.827	$ 3,825,450	$ 1,336,151
64	Waste water treatment plant	$ 2,393,000	40	$ 1,555,450	1996	65.00%	83.77	236.8	2.827	$ 6,764,779	$ 2,367,673
65	Sewer rehab	$ 9,970	40	$ 6,231	1997	62.50%	85.74	236.8	2.762	$ 27,536	$ 10,326
67	Sewer line - McIver Street	$ 11,230	40	$ 5,896	2001	52.50%	93.3	236.8	2.538	$ 28,502	$ 13,539
68	Sewer line - Windsor	$ 254,228	40	$ 133,470	2001	52.50%	93.3	236.8	2.538	$ 645,244	$ 306,491
69	Sewer line - Honeycutt Dr	$ 7,938	40	$ 4,118	2001	51.88%	93.3	236.8	2.538	$ 20,146	$ 9,695
70	Sewer line - Jill street	$ 14,929	40	$ 7,713	2001	51.67%	93.3	236.8	2.538	$ 37,891	$ 18,314
71	Sewer line - HWY 55	$ 14,270	40	$ 7,373	2001	51.67%	93.3	236.8	2.538	$ 36,218	$ 17,505
72	Sewer line - Dunn street	$ 8,172	40	$ 4,205	2001	51.46%	93.3	236.8	2.538	$ 20,741	$ 10,068
73	Sewer line - Pleasant street	$ 20,891	40	$ 10,663	2002	51.04%	96.3	236.8	2.459	$ 51,370	$ 25,150
74	Campbell Street building	$ 83,536	40	$ 33,937	2007	40.63%	132.1	236.8	1.793	$ 149,746	$ 88,912
76	Sewer line - Clearfield	$ 503,108	40	$ 189,714	2007	37.71%	132.1	236.8	1.793	$ 901,863	$ 561,785
78	Sewer line - Clearfield	$ 6,756	40	$ 2,520	2007	37.29%	132.1	236.8	1.793	$ 12,111	$ 7,595
79	Clearfield pump station fence	$ 2,800	40	$ 1,447	2007	51.67%	132.1	236.8	1.793	$ 5,019	$ 2,426
80	Sewer plant - Phase I	$ 1,115,348	40	$ 308,514	2011	27.66%	142.8	236.8	1.658	$ 1,849,540	$ 1,337,943
81	Sewer plant - Phase II	$ 3,055,329	40	$ 763,832	2012	25.00%	155.4	236.8	1.524	$ 4,655,739	$ 3,491,804
82	Laserflow meter system	$ 17,416	5	$ 16,255	2017	93.33%	175.8	236.8	1.347	$ 23,459	$ 1,564
88	Sewer Outfall Up Size Contract	$ 192,572	40	$ 12,838	2019	6.67%	186.8	236.8	1.268	$ 244,117	$ 227,843
159	Lagoon splitter box	$ 136,385	40	$ 78,706	1999	57.71%	89.4	236.8	2.649	$ 361,287	$ 152,794
200	Pump Station 1 Replacement	$ 11,298	40	$ 659	2020	5.83%	198.0	236.8	1.196	$ 13,512	$ 12,724
35	Water lines & Sewer Split	$ 562,025	40	$ 351,266	1997	62.50%	85.74	236.8	2.762	$ 1,552,169	$ 582,063
22	Water & Sewer lines Split	$ 3,378	40	$ 3,210	1985	95.01%	67.6	236.8	3.503	$ 11,833	$ 590
23	Water & Sewer lines Split	$ 20,370	40	$ 18,334	1986	90.01%	67.41	236.8	3.513	$ 71,553	$ 7,151
24	Water & Sewer lines Split	$ 30,639	40	$ 27,192	1986	88.75%	67.41	236.8	3.513	$ 107,624	$ 12,107
53 - 55	Sewer Plant	$ 827,299	40	$ 785,934	1985	95.00%	67.6	236.8	3.503	$ 2,897,994	$ 144,900
201	Replace Pumps @ Pump Station 2	$ 18,904	5	$ 7,877	2020	41.67%	198	236.8	1.196	$ 22,608	$ 13,188

	Waste Water System	Value Replacement Cost New Less Depreciation		$ 12,697,495.96
Appendix B		Less Debt		$ 3,529,200.86
		Less Grants, Contributions, Etc.		$ -
				$ 3,529,200.86
	Waste Water System	Value for System Development Fee /		$ 9,168,295.10
Appendix D	Waste Water System	Total Equivalent Residential Unit by Capacity		3,883
	Waste Water System	= Equivalent Residential Unit (ERU) SDF		$ 2,361.14

[1]	June 30, 2022 Financial Data
[2]	June 30, 2022 Financial Data
[3]	June 30, 2022 Financial Data
[4]	June 30, 2022 Financial Data
[5]	Percent of Asset Depreciation [3]/[1]
[6]	RSMeans Index - Annual 2022 for Installed Date Appendix C
[7]	RSMeans Index - Annual 2022 Appendix C
[8]	Replacement Cost New Factor [7]/[6]
[9]	Replacement Cost New [1]X[8]
[10]	Replacement Cost New Less Depreciation ([1]-[5]) x [9]

INCREMENTAL DEVELOPMENT FEES

The determination of the SDF per ERU for the Incremental Development portion (if any) is shown in the table below. The projected total cost of each ongoing project, including the principal and interest over the term of CIP (Capital Improvement Plan) is used. Per the requirements of the Act, the SDF analysis then deducts any interest and outstanding principal over the CIP term to determine the principal paid to date to value the additional facilities. The Incremental System Development Fee is based on the principal payments to date of any ongoing projects divided by the system's total Equivalent Residential Units as determined above.

There are no Incremental System Development Fees for the 2023 Update.

Appendix A

HOUSE BILL 436 - PUBLIC WATER AND SEWER SYSTEM DEVELOPMENT FEE ACT

GENERAL ASSEMBLY OF NORTH CAROLINA SESSION 2017 SESSION LAW 2017-138 HOUSE BILL 436

H436-v-6

AN ACT TO PROVIDE FOR UNIFORM AUTHORITY TO IMPLEMENT SYSTEM DEVELOPMENT FEES FOR PUBLIC WATER AND SEWER SYSTEMS IN NORTH CAROLINA AND TO CLARIFY THE APPLICABLE STATUTE OF LIMITATIONS.

The General Assembly of North Carolina enacts:

SECTION 1. Chapter 162A of the General Statutes is amended by adding a new Article to read:

"Article 8.

"System Development Fees.

"**§ 162A-200. Short title.**

This Article shall be known and may be cited as the "Public Water and Sewer System Development Fee Act."

"**§ 162A-201. Definitions.**

The following definitions apply in this Article:

(1) Capital improvement. – A planned facility or expansion of capacity of an existing facility other than a capital rehabilitation project necessitated by and attributable to new development.

(2) Capital rehabilitation project. – Any repair, maintenance, modernization, upgrade, update, replacement, or correction of deficiencies of a facility, including any expansion or other undertaking to increase the preexisting level of service for existing development.

(3) Existing development. – Land subdivisions, structures, and land uses in existence at the start of the written analysis process required by G.S. 162A-205, no more than one year prior to the adoption of a system development fee.

(4) Facility. – A water supply, treatment, storage, or distribution facility, or a wastewater collection, treatment, or disposal facility, including for reuse or reclamation of water, owned or operated, or to be owned or operated, by a local governmental unit and land associated with such facility.

(5) Local governmental unit. – Any political subdivision of the State that owns or operates a facility, including those owned or operated pursuant to local act of the General Assembly or pursuant to Part 2 of Article 2 of Chapter 130A, Article 15 of Chapter 153A, Article 16 of Chapter 160A, or Articles 1, 4, 5, 5A, or 6 of Chapter 162A of the General Statutes.

(6) New development. – Any of the following occurring after the date a local government begins the written analysis process required by G.S. 162A-205, no more than one year prior to the adoption of a system development fee, which increases the capacity necessary to serve that development:

a. The subdivision of land.

b. The construction, reconstruction, redevelopment, conversion, structural alteration, relocation, or enlargement of any structure which increases the number of service units.

c. Any use or extension of the use of land which increases the number of service units.

(7) Service. – Water or sewer service, or water and sewer service, provided by a local governmental unit.

(8) Service unit. – A unit of measure, typically an equivalent residential unit, calculated in accordance with generally accepted engineering or planning standards.

(9) System development fee. – A charge or assessment for service imposed with respect to new development to fund costs of capital improvements necessitated by and attributable to such new development, to recoup costs of existing facilities which serve such new development, or a combination of those costs, as provided in this Article. The term includes amortized charges, lump-sum charges, and any other fee that functions as described by this definition regardless of terminology. The term does not include any of the following:

a. A charge or fee to pay the administrative, plan review, or inspection costs associated with permits required for development.

b. Tap or hookup charges for the purpose of reimbursing the local governmental unit for the actual cost of connecting the service unit to the system.

c. Availability charges.

d. Dedication of capital improvements on-site, adjacent, or ancillary to a development absent a written agreement providing for credit or reimbursement to the developer pursuant to G.S. 153A-280, 153A-451, 160A-320, 160A-499 or Part 3A of Article 18, Chapter 153A or Part 3D of Article 19, Chapter 160A of the General Statutes.

e. Reimbursement to the local governmental unit for its expenses in constructing or providing for water or sewer utility capital improvements adjacent or ancillary to the development if the owner or developer has agreed to be financially responsible for such expenses; however, such reimbursement shall be credited to any system development fee charged as set forth in G.S. 162A-207(c).

(10) System development fee analysis. – An analysis meeting the requirements of G.S. 162A-205.

"§ 162A-202. Reserved.

"§ 162A-203. Authorization of system development fee.

(a) A local governmental unit may adopt a system development fee for water or sewer service only in accordance with the conditions and limitations of this Article.

(b) A system development fee adopted by a local governmental unit under any lawful authority other than this Article and in effect on October 1, 2017, shall be conformed to the requirements of this Article not later than July 1, 2018.

"§ 162A-204. Reserved.

"§ 162A-205. Supporting analysis.

A system development fee shall be calculated based on a written analysis, which may constitute or be included in a capital improvements plan, that:

(1) Is prepared by a financial professional or a licensed professional engineer qualified by experience and training or education to employ generally accepted accounting, engineering, and planning methodologies to calculate system development fees for public water and sewer systems.

(2) Documents in reasonable detail the facts and data used in the analysis and their sufficiency and reliability.

(3) Employs generally accepted accounting, engineering, and planning methodologies, including the buy-in, incremental cost or marginal cost, and combined cost methods for each service, setting forth appropriate analysis as to the consideration and selection of a method appropriate to the circumstances and adapted as necessary to satisfy all requirements of this Article.

(4) Documents and demonstrates the reliable application of the methodologies to the facts and data, including all reasoning, analysis, and interim calculations underlying each identifiable component of the system development fee and the aggregate thereof.

(5) Identifies all assumptions and limiting conditions affecting the analysis and demonstrates that they do not materially undermine the reliability of conclusions reached.

(6) Calculates a final system development fee per service unit of new development and includes an equivalency or conversion table for use in determining the fees applicable for various categories of demand.

(7) Covers a planning horizon of not less than 10 years nor more than 20 years.

(8) Is adopted by resolution or ordinance of the local governmental unit in accordance with G.S. 162A-209.

"§ 162A-206. Reserved.

"§ 162A-207. Minimum requirements.

(a) Maximum. – A system development fee shall not exceed that calculated based on the system development fee analysis.

(b) Revenue Credit. – In applying the incremental cost or marginal cost, or the combined cost, method to calculate a system development fee with respect to water or sewer capital improvements, the system development fee analysis must include as part of that methodology a credit against the projected aggregate cost of water or sewer capital improvements. That credit shall be determined based upon generally accepted calculations and shall reflect a deduction of either the outstanding debt principal or the present value of projected water and sewer revenues received by the local governmental unit for the capital improvements necessitated by and attributable to such new development, anticipated over the course of the planning horizon. In no case shall the credit be less than twenty-five percent (25%) of the aggregate cost of capital improvements.

(c) Construction or Contributions Credit. – In calculating the system development fee with respect to new development, the local governmental unit shall credit the value of costs in excess of the development's proportionate share of connecting facilities required to be oversized for use of others outside of the development. No credit shall be applied, however, for water or sewer capital improvements on-site or to connect new development to water or sewer facilities.

"§ 162A-208. Reserved.

"§ 162A-209. Adoption and periodic review.

(a) For not less than 45 days prior to considering the adoption of a system development fee analysis, the local governmental unit shall post the analysis on its Web site and solicit and furnish a means to submit written comments, which shall be considered by the preparer of the analysis for possible modifications or revisions.

(b) After expiration of the period for posting, the governing body of the local governmental unit shall conduct a public hearing prior to considering adoption of the analysis with any modifications or revisions.

(c) The local governmental unit shall publish the system development fee in its annual budget or rate plan or ordinance. The local governmental unit shall update the system development fee analysis at least every five years.

"§ 162A-210. Reserved.

"§ 162A-211. Use and administration of revenue.

(a) Revenue from system development fees calculated using the incremental cost method or marginal cost method, exclusively or as part of the combined cost method, shall be expended only to pay:

(1) Costs of constructing capital improvements including, and limited to, any of the following:

a. Construction contract prices.

b. Surveying and engineering fees.

c. Land acquisition cost.

d. Principal and interest on bonds, notes, or other obligations issued by or on behalf of the local governmental unit to finance any costs for an item listed in sub-subdivisions a. through c. of this subdivision.

(2) Professional fees incurred by the local governmental unit for preparation of the system development fee analysis.

(3) If no capital improvements are planned for construction within five years or the foregoing costs are otherwise paid or provided for, then principal and interest on bonds, notes, or other obligations issued by or on behalf of a local governmental unit to finance the construction or acquisition of existing capital improvements.

(b) Revenue from system development fees calculated using the buy-in method may be expended for previously completed capital improvements for which capacity exists and for capital rehabilitation projects. The basis for the buy-in calculation for previously completed capital improvements shall be determined by using a generally accepted method of valuing the actual or replacement costs of the capital improvement for which the buy-in fee is being collected less depreciation, debt credits, grants, and other generally accepted valuation adjustments.

(c) A local governmental unit may pledge a system development fee as security for the payment of debt service on a bond, note, or other obligation subject to compliance with the foregoing limitations.

(d) System development fee revenues shall be accounted for by means of a capital reserve fund established pursuant to Part 2 of Article 3 of Chapter 159 of the General Statutes and limited as to expenditure of funds in accordance with this section.

"**§ 162A-212. Reserved.**

"**§ 162A-213. Time for collection of system development fees.**

For new development involving the subdivision of land, the system development fee shall be collected by a local governmental unit either at the time of plat recordation or when water or sewer service for the subdivision or other development is committed by the local governmental unit. For all other new development, the local governmental unit shall collect the system development fee at the time of application for connection of the individual unit of development to the service or facilities.

"**§ 162A-214. Reserved.**

"**§ 162A-215. Narrow construction.**

Notwithstanding G.S. 153A-4 and G.S. 160A-4, in any judicial action interpreting this Article, all powers conferred by this Article shall be narrowly construed to ensure that system development fees do not unduly burden new development."

SECTION 2. G.S. 130A-64 reads as rewritten:

"**§ 130A-64. Service charges and rates.**

(a) A sanitary district board shall apply service charges and rates based upon the exact benefits derived. These service charges and rates shall be sufficient to provide funds for the maintenance, adequate depreciation and operation of the work of the district. If reasonable, the service charges and rates may include an amount sufficient to pay the principal and interest maturing on the outstanding bonds and, to the extent not otherwise provided for, bond anticipation notes of the district. Any surplus from operating revenues shall be set aside as a separate fund to be applied to the payment of interest on or to the retirement of bonds or bond anticipation notes. The sanitary district board may modify and adjust these service charges and rates.

(b) The district board may require system development fees only in accordance with Article 8 of Chapter 162A of the General Statutes."

SECTION 3. G.S. 153A-277 reads as rewritten:

"**§ 153A-277. Authority to fix and enforce rates.**

(a) A county may establish and revise from time to time schedules of rents, rates, fees, charges, and penalties for the use of or the services furnished or to be furnished by a public enterprise. Schedules of rents, rates, fees, charges, and penalties may vary for the same class of service in different areas of the county and may vary according to classes of service, and different schedules may be adopted for services provided outside of the county. A county may include a fee relating to subsurface discharge wastewater management systems and services on the property tax bill for the real property where the system for which the fee is imposed is located.

...

(a2) A county may require system development fees only in accordance with Article 8 of Chapter 162A of the General Statutes.

...."

SECTION 4.(a) G.S. 160A-314 reads as rewritten:

"**§ 160A-314. Authority to fix and enforce rates.**

(a) A city may establish and revise from time to time schedules of rents, rates, fees, charges, and penalties for the use of or the services furnished or to be furnished by any public enterprise. Schedules of rents, rates, fees, charges, and penalties may vary according to classes of service, and different schedules may be adopted for services provided outside the corporate limits of the city.

...

(e) A city may require system development fees only in accordance with Article 8 of Chapter 162A of the General Statutes."

SECTION 4.(b) G.S. 160A-317 is amended by adding a new subsection to read:

"(a4) System Development Fees. – A city may require system development fees only in accordance with Article 8 of Chapter 162A of the General Statutes."

SECTION 5.(a) G.S. 162A-6(a) is amended by adding a new subdivision to read:

"(9a) To impose and require system development fees only in accordance with Article 8 of this Chapter."

SECTION 5.(b) G.S. 162A-9 is amended by adding a new subsection to read:

"(a5) An authority may require system development fees only in accordance with Article 8 of this Chapter."

SECTION 6.(a) G.S. 162A-36(a) is amended by adding a new subdivision to read:

"(8a) To impose and require system development fees only in accordance with Article 8 of this Chapter."

SECTION 6.(b) G.S. 162A-49 reads as rewritten:

"**§ 162A-49. Rates and charges for services.**

(a) The district board may fix, and may revise from time to time, rents, rates, fees and other charges for the use of land for the services furnished or to be furnished by any water system or sewerage system or both. Such rents, rates, fees and charges shall not be subject to supervision or regulation by any bureau, board, commission, or other agency of the State or of any political subdivision. Any such rents, rates, fees and charges pledged to the payment of revenue bonds of the district shall be fixed and revised so that the revenues of the water system or sewerage system or both, together with any other available funds, shall be sufficient at all times to pay the cost of maintaining, repairing and operating the water system or the sewerage system or both, the revenues of which are pledged to the payment of such revenue bonds, including reserves for such purposes, and to pay the interest on and the principal of such revenue bonds as the same shall become due and payable and to provide reserves therefor. If any such rents, rates, fees and charges are pledged to the payment of any general obligation bonds issued under this Article, such rents, rates, fees and charges shall be fixed and revised so as to comply with the requirements of such pledge. The district board may provide methods for collection of such rents, rates, fees and charges and measures for enforcement of collection thereof, including penalties and the denial or discontinuance of service.

(b) The district board may require system development fees only in accordance with Article 8 of this Chapter."

SECTION 7.(a) G.S. 162A-69 is amended by adding a new subdivision to read:

"(8a) To impose and require system development fees only in accordance with Article 8 of this Chapter."

SECTION 7.(b) G.S. 162A-72 reads as rewritten:

"**§ 162A-72. Rates and charges for services.**

(a) The district board may fix, and may revise from time to time, rents, rates, fees and other charges for the use of and for the services furnished or to be furnished by any sewerage system. Such rents, rates, fees and charges shall not be subject to supervision or regulation by any bureau, board, commission, or other agency of the State or of any political subdivision. Any such rents, rates, fees and charges pledged to the payment of revenue bonds of the district shall be fixed and revised so that the revenues of the sewerage system, together with any other available funds, shall be sufficient at all times to pay the cost of maintaining, repairing and operating the sewerage system the revenues of which are pledged to the payment of such revenue bonds, including reserves for such purposes, and to pay the interest on and the principal of such revenue bonds as the same shall become due and payable and to provide reserves therefor. If any such rents, rates, fees and charges are pledged to the payment of any general obligation bonds issued under this Article, such rents, rates, fees and charges shall be fixed and revised so as to comply with the requirements of such pledge. The district board may

provide methods for collection of such rents, rates, fees and charges and measures for enforcement of collection thereof, including penalties and the denial or discontinuance of service.

(b) The district board may require system development fees only in accordance with Article 8 of this Chapter."

SECTION 8. G.S. 162A-85.13 is amended by adding a new subsection to read:

"(a1) The district board may require system development fees only in accordance with Article 8 of this Chapter."

SECTION 9. G.S. 162A-88 reads as rewritten:

"§ 162A-88. District is a municipal corporation.

(a) The inhabitants of a county water and sewer district created pursuant to this Article are a body corporate and politic by the name specified by the board of commissioners. Under that name they are vested with all the property and rights of property belonging to the corporation; have perpetual succession; may sue and be sued; may contract and be contracted with; may acquire and hold any property, real and personal, devised, sold, or in any manner conveyed, dedicated to, or otherwise acquired by them, and from time to time may hold, invest, sell, or dispose of the same; may have a common seal and alter and renew it at will; may establish, revise and collect rates, fees or other charges and penalties for the use of or the services furnished or to be furnished by any sanitary sewer system, water system or sanitary sewer and water system of the district; and may exercise those powers conferred on them by this Article.

(b) The district board may require system development fees only in accordance with Article 8 of this Chapter."

SECTION 10.(a) G.S. 1-52(15) reads as rewritten:

"(15) For the recovery of taxes paid as provided in G.S. 105-381.G.S. 105-381 or for the recovery of an unlawful fee, charge, or exaction collected by a county, municipality, or other unit of local government for water or sewer service or water and sewer service."

SECTION 10.(b) This section is to clarify and not alter G.S. 1-52.

SECTION 11. Sections 1 through 9 of this act become effective October 1, 2017, and apply to system development fees imposed on or after that date. Section 10 of this act, being a clarifying amendment, has retroactive effect and applies to claims accrued or pending prior to and after the date that section becomes law. Nothing in this act provides retroactive authority for any system development fee, or any similar fee for water or sewer services to be furnished, collected by a local governmental unit prior to October 1, 2017. The remainder of this act is effective when it becomes law and applies to claims accrued or pending prior to and after that date.

In the General Assembly read three times and ratified this the 29th day of June, 2017.

s/ Daniel J. Forest
President of the Senate

s/ Tim Moore
Speaker of the House of Representatives

s/ Roy Cooper
Governor Approved 4:13 p.m. this 20th day of July, 2017

Appendix B

Table I

	Water and Waste Water Debt Principal as of March 1, 2023		
During 2021 the Town of Angier Refinanced and Issued New Debt to Consolidate: DENR Refunding Series 2011, Sanitary Sewer Series 2010A, Sanitary Sewer Series 2012, Kennebeck Tank Installment and Other Projects.			
	Issued	Debt as of March 1, 2023*	
Revenue Bonds 2021A	$3,349,000	$3,349,000	
Revenue Bonds 2021B	$2,869,000	$2,704,000	(Debt - Principal Paid 2022 and 2023)
Total Issued Debt	$6,218,000	$6,053,000	
Debt Allocation to Water and Waste Water Based on Previous Debt, Installment Funding and Expenditures at Issue Date **			
	Percent Allocation		
Water	42%	$2,523,799	
Waste Water	58%	$3,529,201	
		$6,053,000	
* Based on Principal Debt 2021 A & 2021 B Schedule 1 Appendix B			
** Allocation based on Water & Waste Water Debt to be Refunded and Estimated Projects to be Financed with 2021 A and 2021 B Revenue Bonds			

Table II

Refunding and Project Financing 2021 Revenue Bonds Estimated Allocation of 2021 Revenue Bonds by Water & Waste Water						
	Refunded Debt	Other Project Debt			Total	% **
Water Debt and Projects	$1,735,346	* 500K Tank & Other	$857,250	[1]	$2,592,596	42%
Waste Water Debt and Projects	$2,723,000	* Est Pump 1 & 6 & Other	$902,404	[2]	$3,625,404	58%
	$4,458,346			[3]	$6,218,000	
* Estimate for Town financed portion of Additional Projects from 2021 Revenue Bonds as of 12/28/2022 for Water and Waste Water Projects until specific financing resources are identified for each project.						
** Percent Allocation based on [1]/[3] for Water & [2]/[3] Waste Water						

Table III

Town of Angier	**Allocation by Water & Waste Water for 2021 Revenue Bonds**		
Amortization G.O. Bonds	**Refunding of GO, Revenue and Installment Purchases**		
	2022	June 30, 2023	
Description	L/T Portion	Principal	Interest
Water Revolving-DENR			
Refunding, Series 2011	$ 424,512	100,926.12	15,155.08
Total GO Bonds	**$ 424,512**	**100,926.12**	**15,155.08**
Sanitary Sewer-Series 2010A	$ 1,049,000	22,000.00	43,271.25
Sanitary Sewer-Series 2012	$ 1,674,000	33,000.00	62,775.00
Total Revenue Bonds	**$ 2,723,000**	**55,000.00**	**106,046.25**
Total Utility Fund Bonds	**$ 3,147,512**	**155,926.12**	**121,201.33**
		June 30, 2023	
		Principal	Interest
Installment Purchases			
Water Kennebeck Elevated Tank	$ 1,310,834	100,246.83	30,836.55
		Total Project	Project Interest
		1,966,250.73	366,250.72
Total Installment	**$ 1,310,834**	**100,246.83**	**30,836.55**
Total Bonds & Installment	**$ 4,458,346**	**357,099.07**	**167,192.96**

Appendix B

Table IV

2021A 2023 Debt = $3,349,000

Schedule I

BOND DEBT SERVICE

Town of Angier, North Carolina
Series 2021A Revenue Bonds

Period Ending	Principal	Coupon	Interest	Debt Service
02/01/2022			26,001.26	26,001.26
08/01/2022			36,001.75	36,001.75
02/01/2023			36,001.75	36,001.75
08/01/2023			36,001.75	36,001.75
02/01/2024	165,000	2.150%	36,001.75	201,001.75
08/01/2024			34,228.00	34,228.00
02/01/2025	169,000	2.150%	34,228.00	203,228.00
08/01/2025			32,411.25	32,411.25
02/01/2026	173,000	2.150%	32,411.25	205,411.25
08/01/2026			30,551.50	30,551.50
02/01/2027	176,000	2.150%	30,551.50	206,551.50
08/01/2027			28,659.50	28,659.50
02/01/2028	180,000	2.150%	28,659.50	208,659.50
08/01/2028			26,724.50	26,724.50
02/01/2029	184,000	2.150%	26,724.50	210,724.50
08/01/2029			24,746.50	24,746.50
02/01/2030	188,000	2.150%	24,746.50	212,746.50
08/01/2030			22,725.50	22,725.50
02/01/2031	192,000	2.150%	22,725.50	214,725.50
08/01/2031			20,661.50	20,661.50
02/01/2032	196,000	2.150%	20,661.50	216,661.50
08/01/2032			18,554.50	18,554.50
02/01/2033	200,000	2.150%	18,554.50	218,554.50
08/01/2033			16,404.50	16,404.50
02/01/2034	204,000	2.150%	16,404.50	220,404.50
08/01/2034			14,211.50	14,211.50
02/01/2035	209,000	2.150%	14,211.50	223,211.50
08/01/2035			11,964.75	11,964.75
02/01/2036	213,000	2.150%	11,964.75	224,964.75
08/01/2036			9,675.00	9,675.00
02/01/2037	218,000	2.150%	9,675.00	227,675.00
08/01/2037			7,331.50	7,331.50
02/01/2038	223,000	2.150%	7,331.50	230,331.50
08/01/2038			4,934.25	4,934.25
02/01/2039	227,000	2.150%	4,934.25	231,934.25
08/01/2039			2,494.00	2,494.00
02/01/2040	232,000	2.150%	2,494.00	234,494.00
	3,349,000		782,564.76	4,131,564.76

Appendix B

Table V

2021 B 2023 Debt = $2,869,000 - $89,000 (2022 Principal Payment) - $76,000 (2023 Principal Payment)

= $2,704,000

Schedule I

BOND DEBT SERVICE

Town of Angier, North Carolina
Series 2021B Revenue Bonds

Period Ending	Principal	Coupon	Interest	Debt Service
02/01/2022	89,000	1.940%	20,098.93	109,098.93
08/01/2022			26,966.00	26,966.00
02/01/2023	76,000	1.940%	26,966.00	102,966.00
08/01/2023			26,228.80	26,228.80
02/01/2024	60,000	1.940%	26,228.80	86,228.80
08/01/2024			25,646.80	25,646.80
02/01/2025	61,000	1.940%	25,646.80	86,646.80
08/01/2025			25,055.10	25,055.10
02/01/2026	63,000	1.940%	25,055.10	88,055.10
08/01/2026			24,444.00	24,444.00
02/01/2027	184,000	1.940%	24,444.00	208,444.00
08/01/2027			22,659.20	22,659.20
02/01/2028	187,000	1.940%	22,659.20	209,659.20
08/01/2028			20,845.30	20,845.30
02/01/2029	191,000	1.940%	20,845.30	211,845.30
08/01/2029			18,992.60	18,992.60
02/01/2030	195,000	1.940%	18,992.60	213,992.60
08/01/2030			17,101.10	17,101.10
02/01/2031	198,000	1.940%	17,101.10	215,101.10
08/01/2031			15,180.50	15,180.50
02/01/2032	202,000	1.940%	15,180.50	217,180.50
08/01/2032			13,221.10	13,221.10
02/01/2033	332,000	1.940%	13,221.10	345,221.10
08/01/2033			10,000.70	10,000.70
02/01/2034	337,000	1.940%	10,000.70	347,000.70
08/01/2034			6,731.80	6,731.80
02/01/2035	344,000	1.940%	6,731.80	350,731.80
08/01/2035			3,395.00	3,395.00
02/01/2036	350,000	1.940%	3,395.00	353,395.00
	2,869,000		533,034.93	3,402,034.93

Appendix C

RSMeans Index January 2023 for
Calendar Year 2022 Raleigh NC Base

Year	Index		Year	Index	
2022	236.8	1.00	1999	89.4	0.38
2021	200.9	0.85	1998	87.5	0.37
2020	198.0	0.84	1997	85.7	0.36
2019	186.8	0.79	1996	83.8	0.35
2018	183.3	0.77	1995	81.8	0.35
2017	175.8	0.74	1994	79.4	0.34
2016	174.6	0.74	1993	77.3	0.33
2015	167.6	0.71	1992	75.6	0.32
2014	161.6	0.68	1991	73.6	0.31
2013	157.5	0.67	1990	75.5	0.32
2012	155.4	0.66	1989	73.7	0.31
2011	142.8	0.60	1988	72.0	0.30
2010	140.6	0.59	1987	70.2	0.30
2009	145.1	0.61	1986	67.4	0.28
2008	135.3	0.57	1985	67.6	0.29
2007	132.1	0.56	1984	67.1	0.28
2006	124.2	0.52	1983	65.6	0.28
2005	112.1	0.47	1982	62.3	0.26
2004	100.3	0.42			
2003	97.8	0.41			
2002	96.3	0.41			
2001	93.3	0.39			
2000	91.9	0.39			

Appendix D

CALCULATION OF SYSTEM EQUIVALENT RESIDENTIAL UNITS BY CAPACITY

Water	System Capacity MGD	2.020	MGD
	System Capacity GPD	2,020,000	GPD
	Equivalent Residential Unit GPD *	360	GPD / ERU
	Total Equivalent Residential Units by Capacity	5,611	ERU (Capacity Based)
* NC Administrative Code 15A NCAC02T.0114 for a three bedroom home based on 120 GPD per bedroom			
Waste Water	System Capacity MGD	1.258	MGD
	System Capacity GPD	1,258,000	GPD
	Equivalent Residential Unit GPD	324	GPD / ERU
	Total Equivalent Residential Unit by Capacity	3,883	ERU (Capacity Based)
* NC Administrative Code 15A NCAC02T.0114 for a three bedroom home based on 120 GPD per bedroom			X 90%

Year 2022

Projected Growth Rate	3.0%		Data Request 1/11/23 Angier & DM2 Engineeing
Miles of Line	63		Data Request 1/11/23 Angier & DM2 Engineeing
Average Daily Use Water	0.572	MGD	Data Request 1/11/23 Angier & DM2 Engineeing
Water System Capacity	2.020	MGD	Data Request 1/11/23 Angier & DM2 Engineeing
Waste Water System Capacity	1.258	MGD	Data Request 1/11/23 Angier & DM2 Engineeing

Appendix E

AWWA Capacity vs Tap Size

Meter Size		AWWA (capacity)	Capacity Factor	Factor on 3/4	Factor on 1
5/8 inch		20	1.00	0.67	0.40
3/4 inch		30	1.50	1.00	0.60
1 inch		50	2.50	1.67	1.00
1-1/2 inch		100	5.00	3.33	2.00
2 inch		160	8.00	5.33	3.20
3 inch		300	15.00	10.00	6.00
4 inch		500	25.00	16.67	10.00
6 inch		1,000	50.00	33.33	20.00
8 inch		1,600	80.00	53.33	32.00
10 inch		2,300	115.00	76.67	46.00
12 inch		4,300	215.00	143.33	86.00