

WATER AND SEWER SYSTEM DEVELOPMENT FEE**SUPPORTING ANALYSIS****MARCH 2024 REVISION**

Town of Carthage, North Carolina



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1.0 INTRODUCTION

During the 2017 session, the North Carolina General Assembly passed House Bill 436 in order to give water and sewer service providers the authority to charge fees for system development and capacity. Before implementing a system development fee schedule, service providers are required to complete a supporting analysis to document and detail the establishment of fees.

A system development fee schedule was adopted by the Carthage Town Council in 2019. The adopted fees included a \$2.63/gallon value for water system capacity and a \$6.70/gallon fee for sewer system capacity. The adopted fees included the incremental cost of a project to increase sewer system capacity, and this project was recently completed. Therefore, the development fees need to be revised to update system values and capacity as well as to update incremental costs for additional future projects. The following report describes the methodology and assumptions used in establishing the system development fee for the water and sewer systems.

2.0 SYSTEM OVERVIEW

The Town of Carthage operates water and sewer systems that provide service to users throughout the town limits as well as to areas within the county. The following sections provide an overview of the main components contributing to the systems overall capacity.

2.1 Existing Water System

The Town of Carthage water system is operated under PWS ID# 03-63-025, and consists of raw water intake, reservoir, treatment facility, elevated storage tank, and approximately 50 miles of 2-inch through 12-inch water mains.

The Town's water supply consists of a run-of-river intake with a permitted daily withdrawal of 1.0 million gallons. Raw water is pumped via a duplex vertical turbine pump station and 10-inch raw water main to an off stream reservoir system located at the water treatment facility. The reservoir system has approximately 19 million gallons of storage capacity.

Treatment of the raw water is provided by a dissolved air flotation (DAF) clarifier followed by dual membrane microfiltration units with a combined capacity of 1.0 MGD. Treated water is stored in an existing 0.50 million-gallon concrete clearwell before being pumped to an elevated storage tank and distribution system. The Town's distribution system consists of water mains with diameters ranging from 2-inches through 12-inches in diameter. Only the 12-inch distribution mains were included in the system development fee calculation.

2.2 Existing Sewer System

The Town of Carthage owns and operates a wastewater collection system that consists of approximately 22.3 miles of 6-inch through 16-inch gravity mains; 18 sewer pump stations; and approximately 22.0 miles of 3-inch through 18-inch forcemain. The collection system is divided into two main sub-basins, with flow from these sub-basins being combined and conveyed to the Moore County system through an existing sewer interconnection. This interconnection consists of two pump stations, approximately 16,100 linear feet (lf) of 8-inch, and approximately 33,500 lf of 16-inch forcemain. The 16-inch portion of the interconnection was installed recently and the pump stations were upgraded also. Additional improvements are needed to upsize the remaining section of the 8-inch forcemain and additional pump station capacity improvements. Funding for this work is being secured and construction is expected to begin within the planning period of this analysis.

All wastewater is conveyed to the Moore County regional treatment facility for treatment and disposal. This facility was constructed in 1977 and was upgraded recently to a total capacity of 10.0 MGD.

3.0 METHODOLOGY

The system development fees for the Town of Carthage water and sewer systems have been calculated based on methods recommended by the American Water Works Association (AWWA) in the Manual of Water Supply Practices M1, Principles of Water Rates, Fees, and Charges. This manual, as well as House Bill 436, references three basic methods for fee calculation as follows:

- Buy-In Method: This method is based on the value of the systems capacity, and is useful when sufficient capacity is available for new development.
- Incremental Cost Method: This method is based on cost required for system expansion to serve new development, and is useful when little or no capacity is available. The fee is based on the cost of components needed to serve new development.
- Combined Approach: This method is useful when a system has capacity for development in a portion of the system components, but improvements are needed in other areas.

For the Town of Carthage, we have determined that the Buy-In Method is most appropriate for the water system development fee. For the sewer system, both the Buy-In Method and Incremental Cost Method are appropriate since additional future capacity improvements are scheduled. As required by the house bill, the system development fee calculation includes a revenue credit to prevent new rate payers from being charged twice for system capacity. The legislation requires the revenue credit to, “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 addition, the calculated revenue credit for incremental costs must not be less than 25% of the aggregate cost of the capital improvements.

3.1 Water System Development Fee

As noted, the buy-in method was used to determine the appropriate system development fee for the water system. System components included in the determination included the raw water source, treatment, pumping, storage, land, and transmission systems. The process of calculating the system development fee included developing an inventory of system components and assigning a value to each component. The component cost was determined by estimating the replacement cost of a new component with equal capacity and deducting depreciation. Component depreciation was calculated using the straight-line depreciation based on estimated remaining life with no salvage value.

After determining the depreciated value, deductions were applied for grant or other contributions and the required revenue credit. Deductions for grant funding were based on the percentage of grant funding obtained for the original construction project. The revenue credit deduction is equal to the outstanding debt principal. The following table

summarizes the maximum allowable system development fee related to water system components as a cost per gallon of total capacity. Detailed estimates for water system component are included in **Appendix A**.

Table 1: Water System Development Fee Summary

System Component	Estimated Total Replacement Value	Estimated Remaining Life (%)¹	Depreciated Value	% Eligible for System Development Fee²	Eligible Value for CDF
Raw Water Pump Station, Intake, and Stream Impoundment	\$1,129,375.00	20%	\$225,875.00	100%	\$225,875.00
10-inch Raw Water Main	\$5,757,500.00	20%	\$1,151,500.00	100%	\$1,151,500.00
Off-Stream Raw Water Reservoir	\$704,000.00	50%	\$352,000.00	100%	\$352,000.00
Elevated Storage Tank	\$1,649,375.00	65%	\$1,072,093.75	50%	\$536,046.88
Microfiltration Treatment System	\$10,294,000.00	65%	\$6,691,100.00	0%	\$0.00
DAF System & Clearwell	\$3,919,000.00	92%	\$3,605,480.00	40%	\$1,442,192.00
Filter Pump Station	\$889,000.00	92%	\$817,880.00	40%	\$327,152.00
High Service Pump Station	\$801,000.00	92%	\$736,920.00	40%	\$294,768.00
Land for Treatment Plant, Reservoir, and Raw Water PS & Impoundment (240 acres @ \$10,000.00/acre)	\$240,000.00	100%	\$240,000.00	100%	\$240,000.00
12" Water Main	\$9,280,343.75	70.46%	\$6,538,710.94	55.77%	\$3,646,809.38
Depreciated System Value					\$8,216,343.25
Outstanding Debt Principal (Revenue Credit)					\$1,581,000.00
System Development Value					\$6,635,343.25
Cost of Capacity per Gallon (1.0 MGD Total Capacity)					\$6.64

¹ The estimated remaining life is based on time of construction and/or current condition.

² Reflects the deduction for grant and other contributions to construction.

3.2 Sewer System Development Fee

The calculation of the sewer system development fee was completed using a combination of the Buy-In Method and Incremental Cost Method. Ultimately, the fee is based on the value of available capacity in pump stations, forcemains, and gravity outfalls as well as the value of system improvements needed for future capacity.

3.2.1 Sewer Buy-In Method

The portion of the total sewer system development fee attributable to the buy-in method was calculated as described for the water system fee. The current-day replacement cost of new components of equal capacity was determined less depreciation. In addition, the percentage of grant or other outside funding was

deducted, and a revenue credit was applied equal to the current outstanding debt principal. The following table provides a summary of the sewer system development fee calculation. Detailed estimates for sewer system components are provided in **Appendix B**.

Table 2: Sewer System Development Fee Buy-In Method Summary

System Component	Estimated Total Replacement Value	Estimated Remaining Life (%) ¹	Depreciated Value	% Eligible for System Development Fee ²	Eligible Value for System Development Fee
Lagoon Pump Station	\$1,377,500.00	25%	\$344,375.00	100%	\$344,375.00
Forcemain for Lagoon PS	\$2,797,500.00	55%	\$1,538,625.00	100%	\$1,538,625.00
Hwy 22 Pump Station	\$1,315,000.00	70%	\$920,500.00	54%	\$497,070.00
Forcemain for Hwy 22 PS	\$1,204,500.00	90%	\$1,084,050.00	70%	\$758,835.00
Cox's Pump Station	\$1,377,500.00	70%	\$964,250.00	57%	\$549,622.50
Forcemain for Cox PS ¹	\$747,500.00	55%	\$411,125.00	0%	\$0.00
McCaskill Pump Station	\$1,377,500.00	99%	\$1,363,725.00	35%	\$477,303.75
Forcemain for McCaskill PS	\$9,354,625.00	99%	\$9,261,078.75	35%	\$3,241,377.56
Gravity Outfalls to Lagoon	\$5,778,427.41	20%	\$1,155,685.48	100%	\$1,155,685.48
Total System Development Value					\$8,562,894.29
Credit (Outstanding Debt Principal)					\$4,290,000.00
Existing System Development Fee Value					\$4,272,894.29

¹ The estimated remaining life is based on time of construction and/or current condition.

² Reflects the deduction for grant and other contributions to construction.

3.2.2 Incremental Cost Method

The value of planned improvements to major pumping components were included in the determination of system values to be applied by the incremental cost method. It was assumed that all proposed improvements would be constructed as part of one construction project, and funding would be obtained through a combination of loan and grant funding through USDA as well as a recent state grant obtained by the Town. The project included in this incremental cost section consists of replacement of the Cox Pump Station and the associated 8-inch forcemain with a new triplex pump station and 16-inch forcemain. The project will also include upgrades and modifications to the existing lagoon pump station. The grant portion of the construction project will include all work associated with the pump station replacement. The forcemain is to be completed with USDA funding. A 40-year loan term was used as is typical for USDA funding, and the interest rate was assumed to be 3.75% for calculation of the present value of debt payments by new customers. In addition, it was assumed that 15% of the total project cost

funded through USDA would be provided by grants or system development fee contributions.

A revenue credit was deducted from the estimated value of the improvements equal to the present value of debt payments collected by future customers. The revenue credit totals \$1,193,255.39 or about 31% of the total capital improvement value. The revenue credit calculation is included in **Appendix B**.

Table 3: Sewer System Development Fee Incremental Cost Method Summary

System Component	Estimated Total Replacement Value	Estimated Remaining Life (%)	Depreciated Value	% Eligible	Eligible Value
16-Inch Forcemain Interconnection Improvements (Cox PS to McCaskill PS)	\$4,154,375.00	100%	\$4,154,375.00	85%	\$3,531,218.75
Cos Pump Station Replacement	\$1,377,500.00	100%	\$1,377,500.00	0%	\$0.00
Total System Development Value					\$3,531,218.75
Revenue Credit					\$1,119,215.74
Value of Future Improvements for System Development Fee					\$2,412,003.01

3.2.3 Combined Sewer System Development Fee

In applying the combination of the buy-in and incremental cost methods, it is necessary to calculate the allowable system development fee as a weighted average of existing and future capacity. The following table summarizes the sewer system development fee for the combined method.

Table 4: Combined Sewer System Development Fee

Capacity Item	Value	Capacity (gpd)
Existing Capacity	\$4,272,894.29	835,200.00
Future Capacity	\$2,412,003.01	164,800.00
Total	\$6,684,897.30	1,000,000.00
Unit Value of Combined Capacity (cost/gallon)	\$6.68	

4.0 FEE ADJUSTMENT, COLLECTION, AND USE

As noted in the tables above, the water and sewer system developments fees should not exceed \$6.64 per gallon for the water system and \$6.68 per gallon for the sewer system. The following table provides the system development fees for a typical, three-bedroom residential dwelling unit.

Table 5: System Development Fee’s for Residential Customers

Development Fees	Capacity Allocation ¹	Capacity Cost per Gallon (Maximum)	Total Fee
Water System	400	\$6.64	\$2,656.00
Sewer System	225 (3 bedroom home)	\$6.68	\$1,503.00
Total			\$4,159.00

¹ These capacities are based on 15A NCAC 18C.0409 and recent updates to 15A NCAC 02T .0114. Note that a maximum daily usage value is used for the water system since capacity is given as a maximum daily amount available.

4.1 Fee Adjustment for Non-Residential Usage

The fees noted above would be typical for a normal residential unit, but adjustments would need to be made for customers needing more or less capacity. The two most common approaches are basing the charge on the meter size or permitted flow. Each of these methods is described below.

Meter Size: This approach is common and relatively easy to implement and includes an adjustment to the baseline fee based on the ratio of the increase in capacity for larger meters. The ratio would be based on meter equivalencies published by AWWA. The following table summarizes the fee schedule using this method for meter sizes through 4-inch and the baseline fees shown in Table 5.

Table 6: Fee Adjustments Based on Meter Size & Type

Meter Size	Maximum-Rated Safe Flow (gpm)	Meter Equivalent Ratio	Sewer SDF	Water SDF	Total
5/8" Displacement	20	1.0	\$1,539.00	\$2,656.00	\$4,195.00
3/4" Displacement	30	1.5	\$2,308.50	\$3,984.00	\$6,292.50
1" Displacement	50	2.5	\$3,847.50	\$6,640.00	\$10,487.50
1-1/2" Displacement	100	5.0	\$7,695.00	\$13,280.00	\$20,975.00
2" Displacement	160	8.0	\$12,312.00	\$21,248.00	\$33,560.00
3" Singlejet	320	16.0	\$24,624.00	\$42,496.00	\$67,120.00
3" Compound, Class 1	320	16.0	\$24,624.00	\$42,496.00	\$67,120.00
3" Turbine, Class 1	350	17.5	\$26,932.50	\$46,480.00	\$73,412.50
4" Singlejet	500	25.0	\$38,475.00	\$66,400.00	\$104,875.00
4" Compound, Class 1	500	25.0	\$38,475.00	\$66,400.00	\$104,875.00
4" Turbine, Class 1	630	31.5	\$48,478.50	\$83,664.00	\$132,142.50

Permitted Flow: This approach would use the NCDEQ design daily flow requirements for the proposed development to determine the appropriate system development fee. This approach is not as simple as the approach based on meters size but is preferable since it would accurately account for the actual use of the proposed development. Permitted flow should be based on a combination of the Wastewater Design Flow Rates given in 15A NCAC 02T .0114 and daily water flow requirements given in 15A NCAC 18C .0409. The total daily design flow of the proposed development would be multiplied by the unit cost for capacity adopted by the Town. As an example, a new full-service restaurant with 30 seats would be permitted for a capacity of 1,200 GPD. The water system development fee for this restaurant would be \$7,968.00 assuming a unit capacity cost of \$6.64 per gallon, and the sewer system development fee would be \$8,016.00 assuming a unit capacity cost of \$6.68 per gallon.

4.2 Timing for Collection of System Development Fees

The house bill places restrictions on when system development fees are collected and how the fees can be utilized. For new developments, fees can be collected either at the time of plat recordation or when the Town commits to providing water or sewer service. For all other new development, the Bill stipulates that the fee be collected at the time of application for service.

4.3 Use of System Development Fees

The house bill also restricts usage of system development fees. SDF's calculated using the incremental cost method or marginal cost method can only be used to pay for cost associated with construction of the associated capital improvements, including

construction contracts, surveying, engineering, and land acquisition. System development fees can also be used to pay principal and interest on bonds, notes, or other obligations issued for these costs. If no capital improvements are planned for within five years, the fees collected can be used to pay principal and interest on bonds, notes, or other obligations issued to construct or acquire existing capital improvements.

Revenue from system development fees calculated using the buy-in method may be used for previously completed capital improvements that have excess capacity, and for capital rehabilitation projects.

All revenue from system development fees must be accounted for by means of a capital reserve fund established in accordance with Part 2 of Article 3 of Chapter 159 of the General Statutes and limited as to expenditure in accordance with Section 162A-211 of House Bill 436.

A copy of House Bill 436 is included in **Appendix C** for further review by the Town and legal counsel.

5.0 CONCLUSION AND RECOMMENDATIONS

Based on the value of existing system components and future cost to be incurred to meet demands for growth, we recommend that the Town of Carthage update the schedule for assessment of system development fees with the revised sewer capacity cost. The fees given in this report are the maximum allowable that could be adopted, and the Town may set the fees less than these amounts. In addition, we recommend that the Town update this analysis and the system development fee schedule every five years or as needed.

It should be noted that Moore County is in the process of implementing system development fees for their sewer system. It is unclear at this time how the County will assess these fees, but charges to the Town of Carthage that are attributable to growth within its service area should be passed along to those future customers. As such, any Moore County fees should be a separate charge in addition to the fee's adopted by the Town.

As noted previously, we recommend adopting a fee schedule based on permitted flow and unit cost of capacity for each system. Table 7 provides a summary of the maximum allowable fees for various developments. We appreciate the opportunity to assist the Town with this analysis and can be available for additional discussion at the Town's convenience.

Table 7: Town of Carthage Water & Sewer System Development Fee Schedule

Development Type	Water System Development Fee (@\$6.64/gallon)		Sewer System Development Fee (@ \$6.68/gallon)		Total SDF / Unit
3 Bedroom Single Family Residential	\$2,656.00	/unit	\$1,503.00	/unit	\$4,159.00
Multifamily or Single Family other than 3 Bedroom (Cost per Bedroom)	\$885.33	/Bedroom	\$501.00	/Bedroom	\$1,386.33
General Business, Office, and Factories (Excluding Industrial Use)	\$166.00	/employee/shift	\$167.00	/employee/shift	\$333.00
General Business, Office, and Factories (Excluding Industrial Use) with Showers or Food Prep	\$232.40	/employee/shift	\$233.80	/employee/shift	\$466.20
Churches	\$19.92	/seat	\$20.04	/seat	\$39.96
Churches with Kitchen	\$33.20	/seat	\$33.40	/seat	\$66.60
Full-Service Restaurant	\$265.60	/seat	\$267.20	/seat	\$532.80
Fast Food Restaurant	\$132.80	/seat	\$133.60	/seat	\$266.40
Laundromat	\$3,320.00	/machine	\$3,340.00	/machine	\$6,660.00
Medical & Dental Offices	\$1,660.00	/practitioner/shift	\$1,670.00	/practitioner/shift	\$3,330.00
Hospital	\$1,992.00	/bed	\$2,004.00	/bed	\$3,996.00
Day Care & Preschool	\$166.00	/person	\$167.00	/person	\$333.00
Schools (Including Gym & Showers)	\$99.60	/student	\$100.20	/student	\$199.80
Service/Gas Stations & Convenience Stores	\$1,660.00	/plumbing fixture	\$1,670.00	/plumbing fixture	\$3,330.00
Car Wash	\$7,968.00	/bay	\$8,016.00	/bay	\$15,984.00
Fitness Center	\$332.00	/100 ft ²	\$334.00	/100 ft ²	\$666.00
Stores & Shopping Centers	\$664.00	/1,000 ft ²	\$668.00	/1,000 ft ²	\$1,332.00
Stores & Shopping Centers with Food Service	\$863.20	/1,000 ft ²	\$868.40	/1,000 ft ²	\$1,731.60

Notes:

1. Fees are based on design flow given in 15A NCAC 02T .0114 or 15A NCAC 18C .0409 and the system development fee cost per gallon for each system.
2. For development types not given in the table above, fees should be calculated based on unit capacities given in 15A NCAC 02T .0114 and system development cost per gallon as approved by the Town.

**APPENDIX A: WATER SYSTEM COMPONENT
DETAILED ESTIMATES**

Water Capacity Development Fee Worksheet - 2024 Update

System Component	Estimated Total Replacement Value	Remaining Life (%)	Depreciated Value	% Eligible for System Development Fee	Eligible Value for SDF
Raw Water Pump Station, Intake, and Stream Impoundment	\$1,129,375.00	20%	\$225,875.00	100%	\$225,875.00
10-inch Raw Water Main	\$5,757,500.00	20%	\$1,151,500.00	100%	\$1,151,500.00
Off-Stream Raw Water Reservoir	\$704,000.00	50%	\$352,000.00	100%	\$352,000.00
Elevated Storage Tank	\$1,649,375.00	65%	\$1,072,093.75	50%	\$536,046.88
Microfiltration Treatment System	\$10,294,000.00	65%	\$6,691,100.00	0%	\$0.00
DAF System & Clearwell	\$3,919,000.00	92%	\$3,605,480.00	40%	\$1,442,192.00
Filter Pump Station	\$889,000.00	92%	\$817,880.00	40%	\$327,152.00
High Service Pump Station	\$801,000.00	92%	\$736,920.00	40%	\$294,768.00
Land for Treatment Plant, Reservoir, and Raw Water PS & Impoundment (240 acres @ \$10,000.00/acre)	\$240,000.00	100%	\$240,000.00	100%	\$240,000.00
12" Water Main	\$9,280,343.75	70.46%	\$6,538,710.94	55.77%	\$3,646,809.38
Total System Development Value					\$8,216,343.25
Outstanding Debt Principal ¹					\$1,581,000.00
Adjusted Value					\$6,635,343.25
Cost per Gallon (1.0 MGD Capacity)					\$6.64

¹ Outstanding Debt Principal is only included for projects used to determine overall value of capacity.

Water Treatment Plant

Item Description	Total Value
Treatment Building & Lab	\$1,125,000.00
CMF Units & Accessories (Filters, Piping, CIP, Air System, & Backwash)	\$5,800,000.00
Site & Interior Piping	\$380,000.00
Lime Tank & Feed Equipment	\$280,000.00
Chlorine Feed Equipment	\$65,000.00
Ammonia Feed Equipment	\$55,000.00
Instrumentation & SCADA	\$180,000.00
Electrical & Generator	\$220,000.00
Total Estimated Construction Cost	\$8,105,000.00
Contingency	\$811,000.00
Administrative Cost (Design, Inspection, Contract Administration, Permitting, Legal, etc.)	\$1,378,000.00
Total Estimated Replacement Value	\$10,294,000.00

DAF System & Clearwell

Item Description	Total Value
DAF Pretreatment Building	\$250,000.00
Site Piping	\$85,000.00
DAF Unit & Accessories	\$2,000,000.00
0.5 MG Clearwell	\$750,000.00
Total Estimated Construction Cost	\$3,085,000.00
Contingency	\$309,000.00
Administrative Cost (Design, Inspection, Contract Administration, Permitting, Legal, etc.)	\$525,000.00
Total Estimated Replacement Value	\$3,919,000.00

Reservoir Pump Station

Item Description	Total Value
Site Piping & Intakes	\$100,000.00
Wet Well & Vault Structures	\$250,000.00
Pumps, Controls & Electrical	\$375,000.00
Total Estimated Construction Cost	\$725,000.00
Contingency	\$73,000.00
Administrative Cost (Design, Inspection, Contract Administration, Permitting, Legal, etc.)	\$124,000.00
Total Estimated Replacement Value	\$922,000.00

Filter Pump Station

Item Description	Total Value
Site Piping	\$75,000.00
Wet Well & Valve Vault Structures	\$250,000.00
Pumps & Controls	\$375,000.00
Total Estimated Construction Cost	\$700,000.00
Contingency	\$70,000.00
Administrative Cost (Design, Inspection, Contract Administration, Permitting, Legal, etc.)	\$119,000.00
Total Estimated Replacement Value	\$889,000.00

High Service Pump Station

Item Description	Total Value
Site Piping & Pump Cans	\$180,000.00
Pumps Valves & Controls	\$450,000.00
Total Estimated Construction Cost	\$630,000.00
Contingency	\$63,000.00
Administrative Cost (Design, Inspection, Contract Administration, Permitting, Legal, etc.)	\$108,000.00
Total Estimated Replacement Value	\$801,000.00

Raw Water Intake & Pump Station Replacement Estimate

Description	Qty./Unit	Unit Cost	Extended Price
Intake & Structure	1 LS	\$65,000.00	\$65,000.00
16" Raw Water line to Wet Well & Spillway	390 LF	\$150.00	\$58,500.00
Wet Well & Spillway	1 LS	\$325,000.00	\$325,000.00
Piping, Gates, and Valves	1 LS	\$85,000.00	\$85,000.00
Pumps & Controls	1 LS	\$350,000.00	\$350,000.00
Sitework	1 LS	\$20,000.00	\$20,000.00
Total Construction			\$903,500.00
Construction Contingency			\$90,350.00
Administrative Cost (Design, Inspection, Contract Administration, Permitting, Legal, etc.)			\$135,525.00
Total Estimated Replacement Value			\$1,129,375.00

Raw Water Main Replacement Estimate

Description	Qty./Unit	Unit Cost	Extended Price
10" C-900 PVC Water Main	29,100 lf	\$120.00	\$3,492,000.00
10" DIP Water Main	1,250 lf	\$100.00	\$125,000.00
12" HDPE Installed by Directional Bore	400 lf	\$500.00	\$200,000.00
Valves	10 ea	\$6,000.00	\$60,000.00
Air Relief Valve in Manhole	4 ea	\$15,000.00	\$60,000.00
Bends & Fittings	30 ea	\$2,000.00	\$60,000.00
20" Casing Installed by Bore & Jack	400 lf	\$1,200.00	\$480,000.00
Connection to Reservoir	1 ea	\$4,500.00	\$4,500.00
Cleanup and Testing	30,750 lf	\$2.00	\$61,500.00
Erosion Control	14 ac	\$4,500.00	\$63,000.00
Total Construction			\$4,606,000.00
Contingency			\$460,600.00
Administrative Cost (Design, Inspection, Contract Administration, Permitting, Legal, etc.)			\$690,900.00
Total Estimated Replacement Value			\$5,757,500.00

Off-Stream Reservoir Replacement Estimate

Description	Qty./Unit		Unit Cost	Extended Price
Clearing & Grubbing	8	AC	\$5,400.00	\$43,200.00
Earthwork (Total Cut & Fill)	56,500	CY	\$6.00	\$339,000.00
Clay Liner	9,000	CY	\$12.00	\$108,000.00
Erosion Control, Cleanup, & Restoration	1	LS	\$30,000.00	\$25,000.00
Piping	1	LS	\$48,000.00	\$48,000.00
Total Construction				\$563,200.00
Construction Contingency				\$56,320.00
Administrative Cost (Design, Inspection, Contract Administration, Permitting, Legal, etc.)				\$84,480.00
Total Estimated Replacement Value				\$704,000.00

Elevated Tank Replacement Estimate

Description	Qty./Unit	Unit Cost	Extended Price
0.300 MG Elevated Storage Tank	1 LS	\$950,000.00	\$1,200,000.00
Site Piping, Fence, Access Road, & Control Valves	1 LS	\$80,000.00	\$80,000.00
SCADA & Electrical	1 LS	\$35,000.00	\$35,000.00
Erosion Control	1 LS	\$4,500.00	\$4,500.00
Total Construction			\$1,319,500.00
Construction Contingency			\$131,950.00
Administrative Cost (Design, Inspection, Contract Administration, Permitting, Legal, etc.)			\$197,925.00
Total Estimated Replacement Value			\$1,649,375.00

12-inch Water Main Cost & Eligibility Summary

Project	Replacement Cost	Remaining Life	Depreciated Value	% Eligible for SDF	System Development Fee Value
Hwy 22 Water Main	\$5,540,187.50	75.00%	\$4,155,140.63	50.00%	\$2,077,570.31
Union Church Water Main	\$1,459,375.00	93.00%	\$1,357,218.75	40.00%	\$542,887.50
Town Funded Water Main	\$2,280,781.25	45.00%	\$1,026,351.56	100.00%	\$1,026,351.56
Totals	\$9,280,343.75	70.46%	\$6,538,710.94	55.77%	\$3,646,809.38

Hwy 22 12-inch Water Main

Description	Qty./Unit	Unit Cost	Extended Price
12" C-900 PVC Water Main	25,800 lf	\$135.00	\$3,483,000.00
12" DIP Water Main	500 lf	\$185.00	\$92,500.00
14" HDPE Installed by Directional Bore	400 lf	\$600.00	\$240,000.00
Valves	8 ea	\$6,000.00	\$48,000.00
Bends & Fittings	25 ea	\$2,250.00	\$56,250.00
24" Casing Installed by Bore & Jack	300 lf	\$1,350.00	\$405,000.00
Cleanup and Testing	26,700 lf	\$2.00	\$53,400.00
Erosion Control	12 ac	\$4,500.00	\$54,000.00
Total Construction			\$4,432,150.00
Contingency			\$443,215.00
Administrative Cost (Design, Inspection, Contract Administration, Permitting, Legal, etc.)			\$664,822.50
Sub-Total Estimated Replacement Value			\$5,540,187.50

Union Church Road Water Main

Description	Qty./Unit	Unit Cost	Extended Price
12" C-900 PVC Water Main	6,850 lf	\$135.00	\$924,750.00
12" DIP Water Main	150 lf	\$185.00	\$27,750.00
Valves	5 ea	\$6,000.00	\$30,000.00
Bends & Fittings	10 ea	\$2,250.00	\$22,500.00
24" Casing Installed by Bore & Jack	100 lf	\$1,350.00	\$135,000.00
Cleanup and Testing	7,000 lf	\$2.00	\$14,000.00
Erosion Control	3 ac	\$4,500.00	\$13,500.00
Total Construction			\$1,167,500.00
Contingency			\$116,750.00
Administrative Cost (Design, Inspection, Contract Administration, Permitting, Legal, etc.)			\$175,125.00
Sub-Total Estimated Replacement Value			\$1,459,375.00

Town Funded 12-inch Water

Description	Qty./Unit	Unit Cost	Extended Price
12" C-900 PVC Water Main	9,500 lf	\$135.00	\$1,282,500.00
12" DIP Water Main	375 lf	\$185.00	\$69,375.00
Valves	8 ea	\$6,000.00	\$48,000.00
Bends & Fittings	20 ea	\$2,250.00	\$45,000.00
24" Casing Installed by Bore & Jack	250 lf	\$1,350.00	\$337,500.00
Cleanup and Testing	9,875 lf	\$2.00	\$19,750.00
Erosion Control	5 ac	\$4,500.00	\$22,500.00
Total Construction			\$1,824,625.00
Contingency			\$182,462.50
Administrative Cost (Design, Inspection, Contract Administration, Permitting, Legal, etc.)			\$273,693.75
Sub-Total Estimated Replacement Value			\$2,280,781.25

Total 12-inch Water Main Replacement Cost	\$9,280,343.75
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**APPENDIX B: SEWER SYSTEM COMPONENT DETAILED ESTIMATES
& REVENUE CREDIT CALCULATION**

Sewer Capacity Development Fee Worksheet - 2024 Update

Buy-In Method for Cost of Existing Capacity					
System Component	Estimated Total Replacement Value	Estimated Remaining Life (%)	Depreciated Value	% Eligible for System Development Fee	Eligible Value for SDF
Lagoon Pump Station	\$1,377,500.00	25%	\$344,375.00	100%	\$344,375.00
Forcemain for Lagoon PS	\$2,797,500.00	55%	\$1,538,625.00	100%	\$1,538,625.00
Hwy 22 Pump Station	\$1,315,000.00	70%	\$920,500.00	54%	\$497,070.00
Forcemain for Hwy 22 PS	\$1,204,500.00	90%	\$1,084,050.00	70%	\$758,835.00
Cox's Pump Station	\$1,377,500.00	70%	\$964,250.00	57%	\$549,622.50
Forcemain for Cox PS ¹	\$747,500.00	55%	\$411,125.00	0%	\$0.00
McCaskill Pump Station	\$1,377,500.00	99%	\$1,363,725.00	35%	\$477,303.75
Forcemain for McCaskill PS	\$9,354,625.00	99%	\$9,261,078.75	35%	\$3,241,377.56
Gravity Outfalls to Lagoon	\$5,778,427.41	20%	\$1,155,685.48	100%	\$1,155,685.48
Total Capacity Development Value					\$8,562,894.29
Credit (Outstanding Debt Principal)					\$4,290,000.00
Adjusted Value					\$4,272,894.29

¹ Cost for this asset is based on incremental cost for proposed forcemain to be installed with USDA funding.

Incremental Cost Method for Future Capacity Development					
System Component	Estimated Total Replacement Value	Estimated Remaining Life (%)	Depreciated Value	% Eligible for System Development Fee	Eligible Value for SDF
Future Pump Station & Forcemain Interconnection Improvements	\$4,154,375.00	100%	\$4,154,375.00	85%	\$3,531,218.75
Total Capacity Development Value					\$3,531,218.75
Credit (Present Value of Debt Principal Payments)					\$1,119,215.74
Adjusted Value					\$2,412,003.01

Combined Cost Method for Total System Development Fee		
Capacity Item	Value	Capacity
Existing Capacity	\$4,272,894.29	835,200.00
Future Capacity	\$2,412,003.01	164,800.00
Total	\$6,684,897.30	1,000,000.00
Unit Value of Combined Capacity	\$6.68	

Existing McCaskill Pump Station

Item Description	Total Value
Concrete Structures	\$400,000.00
Valves and Piping	\$180,000.00
Pumps & Controls	\$275,000.00
Electrical	\$120,000.00
Generator	\$85,000.00
Grading & Site Work	\$30,000.00
Cleanup & Erosion Control	\$12,000.00
Total Estimated Construction Cost	\$1,102,000.00
Contingency	\$110,200.00
Administrative Cost (Design, Inspection, Contract Administartion, Permitting, Legal, etc.)	\$165,300.00
Total Estimated Replacement Value	\$1,377,500.00

Discharge Forcemain from McCaskill PS to Southern Pines Forcemain

Item Description	Qty	Unit Price	Total Value
16" PVC Forcemain	29,500 lf	\$150.00	\$4,425,000.00
16" DIP Forcemain	1,250 lf	\$225.00	\$281,250.00
18" HDPE Forcemain by Directional Bore	2,000	\$650.00	\$1,300,000.00
Valves	18 ea	\$11,000.00	\$198,000.00
Air Relief Valve in Manhole	12 ea	\$12,000.00	\$144,000.00
Bends & Fittings	24 ea	\$2,500.00	\$60,000.00
30" Casing Installed by Bore & Jack	620 lf	\$1,500.00	\$930,000.00
Connection to Existing System	1 ea	\$12,000.00	\$12,000.00
Cleanup and Testing	32,750 lf	\$2.00	\$65,500.00
Erosion Control	15.1 ac	\$4,500.00	\$67,950.00
Total Estimated Construction Cost			\$7,483,700.00
Contingency			\$748,370.00
Administrative Cost (Design, Inspection, Contract Administartion, Permitting, Legal, etc.)			\$1,122,555.00
Total Estimated Replacement Value			\$9,354,625.00

Lagoon Pump Station Replacement Estimate

Item Description	Total Value
Concrete Structures	\$400,000.00
Valves and Piping	\$180,000.00
Pumps and Controls	\$275,000.00
Electrical	\$120,000.00
Generator	\$85,000.00
Grading & Site Work	\$30,000.00
Cleanup & Erosion Control	\$12,000.00
Total Estimated Construction Cost	\$1,102,000.00
Contingency	\$110,200.00
Administrative Cost (Design, Inspection, Contract Administration, Permitting, Legal, etc.)	\$165,300.00
Total Estimated Replacement Value	\$1,377,500.00

Discharge Forcemain from Lagoon to Cox Pump Station

Description	Qty./Unit	Unit Cost	Extended Price
8" PVC Forcemain	16,500 lf	\$110.00	\$1,815,000.00
8" DIP Forcemain	500 lf	\$160.00	\$80,000.00
Valves	4 ea	\$4,500.00	\$18,000.00
Air Relief Valve in Manhole	3 ea	\$15,000.00	\$45,000.00
Bends & Fittings	10 ea	\$1,800.00	\$18,000.00
16" Casing Installed by Bore & Jack	150 lf	\$1,200.00	\$180,000.00
Connection to Existing System	1 ea	\$12,000.00	\$12,000.00
Cleanup and Testing	17,000 lf	\$2.00	\$34,000.00
Erosion Control	8 ac	\$4,500.00	\$36,000.00
Total Estimated Construction Cost			\$2,238,000.00
Contingency			\$223,800.00
Administrative Cost (Design, Inspection, Contract Administration, Permitting, Legal, etc.)			\$335,700.00
Total Estimated Replacement Value			\$2,797,500.00

Hwy 22 Pump Station

Item Description	Total Value
Concrete Structures	\$350,000.00
Valves and Piping	\$180,000.00
Pumps & Controls	\$275,000.00
Electrical	\$120,000.00
Generator	\$85,000.00
Grading & Site Work	\$30,000.00
Cleanup & Erosion Control	\$12,000.00
Total Estimated Construction Cost	\$1,052,000.00
Contingency	\$105,200.00
Administrative Cost (Design, Inspection, Contract Administartion, Permitting, Legal, etc.)	\$157,800.00
Total Estimated Replacement Value	\$1,315,000.00

Discharge Forcemain from Hwy 22 PS to Cox PS

Description	Qty	Unit Price	Extended Price
8" PVC Forcemain	6,900 lf	\$110.00	\$759,000.00
8" DIP Forcemain	200 lf	\$160.00	\$32,000.00
Valves	3 ea	\$4,500.00	\$13,500.00
Air Relief Valve in Manhole	1 ea	\$15,000.00	\$15,000.00
Bends & Fittings	8 ea	\$1,800.00	\$14,400.00
16" Casing Installed by Bore & Jack	75 lf	\$1,200.00	\$90,000.00
Connection to Existing System	1 ea	\$12,000.00	\$12,000.00
Cleanup and Testing	7,100 lf	\$2.00	\$14,200.00
Erosion Control	3 ac	\$4,500.00	\$13,500.00
Total Estimated Construction Cost			\$963,600.00
Contingency			\$96,360.00
Administrative Cost (Design, Inspection, Contract Administartion, Permitting, Legal, etc.)			\$144,540.00
Total Estimated Replacement Value			\$1,204,500.00

Gravity Outfalls

Item Description	Qty		Unit Price	Extended Price
12" PVC Sanitary Sewer	8,500	lf	\$350.00	\$2,975,000.00
12" Ductile Iron Sanitary Sewer	1,200	lf	\$425.00	\$510,000.00
15" PVC Sanitary Sewer	110	lf	\$380.00	\$41,800.00
12" Sanitary Sewer Installed on Piers	610	lf	\$1,200.00	\$732,000.00
4' Diameter Manholes	45	ea	\$6,000.00	\$270,000.00
Clearing & Grubbing	5.0	ac	\$8,500.00	\$42,699.04
Cleanup & Testing	10,420	lf	\$2.00	\$20,840.00
Erosion Control	6.8	ac	\$4,500.00	\$30,402.89
Total Estimated Construction Cost				\$4,622,741.93
Contingency				\$462,274.19
Administrative Cost (Design, Inspection, Contract Administartion, Permitting, Legal, etc.)				\$693,411.29
Total Estimated Replacement Value				\$5,778,427.41

Cox's Pump Station Replacement (Incremental Cost)

Item Description	Total Value
Concrete Structures	\$400,000.00
Valves and Piping	\$180,000.00
Pumps & Controls	\$275,000.00
Electrical	\$120,000.00
Generator	\$85,000.00
Grading & Site Work	\$30,000.00
Cleanup & Erosion Control	\$12,000.00
Total Estimated Construction Cost	\$1,102,000.00
Contingency	\$110,200.00
Administrative Cost (Design, Inspection, Contract Administartion, Permitting, Legal, etc.)	\$165,300.00
Total Estimated Value	\$1,377,500.00

Future Pump Station & Forcemain Interconnection Improvements (Incremental Cost)

Item Description	Quantity	Unit	Unit Price	Total Price
16" C-900 PVC Forcemain	13,700	LF	\$ 135.00	\$1,849,500.00
16" DI Forcemain w/ Epoxy Lining	750	LF	\$ 180.00	\$135,000.00
18" HDPE Installed by Directional Bore	1,400	LF	\$ 415.00	\$581,000.00
16" MJ Bend	22	EA	\$ 4,000.00	\$88,000.00
16" Gate Valve	8	EA	\$ 10,000.00	\$80,000.00
30" Casing Installed by Bore & Jack	320	LF	\$ 1,100.00	\$352,000.00
Air Relief Valve in Manhole	10	EA	\$ 11,000.00	\$110,000.00
Gravel Drive Repair	200	TN	\$ 50.00	\$10,000.00
Asphalt Removal and Replacement	400	SY	\$ 75.00	\$30,000.00
Erosion Control	15,850.0	LF	\$ 3.00	\$47,550.00
Forcemain Cleanup and Testing	15,850	LF	\$ 2.00	\$31,700.00
Connection to Existing Sewer	1	EA	\$ 8,750.00	<u>\$8,750.00</u>
Total Estimated Construction Cost				\$3,323,500.00
Contingency				\$332,350.00
Administrative Cost (Design, Inspection, Contract Administartion, Permitting, Legal, etc.)				\$498,525.00
Total Estimated Value				\$4,154,375.00

APPENDIX C: HOUSE BILL 436

**GENERAL ASSEMBLY OF NORTH CAROLINA
SESSION 2017**

**HOUSE BILL 436
RATIFIED BILL**

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

Roy Cooper
Governor

Approved _____m. this _____ day of _____, 2017