

System Development Fee Study

Town of Wrightsville Beach, NC

April 24, 2018



Agenda

- Background
- HB 436 requirements
- Methodology
- System development fee calculations
- Results and recommendations

System Development Fees Background

- Fees charged for new connections joining the Town's water and sewer system
- New North Carolina statute passed in July 2017:
 - Public Water and Sewer System Development Fee Act, S.L. 2017-138, also known as the House Bill 436 ("HB 436") was approved on July 20th, 2017

HB 436 Requirements - Fee Calculation

The fee should be calculated using one of the three methodologies identified in the law

- Document all facts and data used
- Identify all assumptions and limiting conditions
- Calculate a fee per service unit of new development
- Incorporate a credit calculation

Methodologies

Methodology	Description	Use of SDF Revenues	Appropriate For
Buy-In Method	Fees are based on cost of constructing existing utility system	Revenues can be used for any capital related cost (rehab and/or expansion)	System with ample existing capacity to sell
Incremental Cost Method	Fees are based on planned capital improvements	Revenues can <u>only</u> be used for expansion related capital projects	System with no/very limited existing capacity to sell
Combined Method	Fees are based on cost of existing system and planned capital improvements	Revenues can <u>only</u> be used for expansion related capital projects	System with existing capacity to sell and with significant growth related capital projects

Stantec recommends using the buy-in method for both the water system and the sewer systems for the Town of Wrightsville Beach.

SDF Calculation

$$\text{System Development Fee} = \frac{\text{Value of System} - \text{Credit}}{\text{System Capacity}}$$

1) Value of Utility System

- Depreciated value escalated to current replacement cost

2) Credit

- Outstanding principal on existing utility debt, donated assets

3) System Capacity

- Total capacity in utility system measured in Equivalent Residential Units (ERUs)

Basis for Credit

- New connection will pay for debt service through user rates
- Removing outstanding principal from fee calculation ensures no double cost recovery
- Our approach conforms with American Waterworks Association M1 Manual

Water SDF Calculation

- 1) Value of Utility System: \$8,049,820
- 2) Credit: \$280,424
- 3) System Capacity: 1.54 Million Gallons Day = 5,232 ERUs

$$\frac{\$8,049,820 - \$280,424}{5,232 \text{ ERUs}} = \$1,530 \text{ per ERU}^*$$

**Fees include a 3% escalation to account for inflation with FY19 implementation*

Sewer SDF Calculation

- 1) Value of Utility System: \$5,503,165
- 2) Credit: \$0
- 3) System Capacity: 0.61 Million Gallons Day = 2,822 ERUs

$$\frac{\$5,503,165 - \$0}{2,822 \text{ ERUs}} = \$2,008 \text{ per ERU}^*$$

**Fees include a 3% escalation to account for inflation with FY19 implementation*

SDF Per Residential ERU

Utility System	Existing SDF	Calculated SDF	Variance
Water	\$2,400	\$1,530	(\$870)
Sewer*	\$2,500	\$2,008	(\$492)

** Existing sewer fee is based on a 4" sewer line size*

Scaling of SDFs

- SDFs are typically scaled by meter size based on hydraulic capacity of meter.
- Town's current water fees are charged by meter size, and current sewer fees are charged by tap size.
- Basis for current scaling factors is unclear
- Common to use factors published by AWWA

Meter size	AWWA Meter Equivalents
5/8" x 3/4"	1.0
1"	2.5
1 1/2"	5.0
2"	8.0
3"	15.0
4"	25.0
6"	50.0

Water Fees by Meter Size

Meter size	Current SDF	Calculated SDF*	Variance
5/8" x 3/4"	\$2,400	\$1,530	(\$870)
1"	\$2,400	\$3,825	\$1,425
1 1/2"	\$8,240	\$7,650	\$(590)
2"	\$14,645	\$12,240	\$(2,405)
3"	\$30,205	\$22,950	\$(7,255)
4"	\$50,345	\$38,250	\$(12,095)
6"	\$146,460	\$76,500	\$(69,960)

Existing Sewer Fees

- The Town currently charges sewer SDF based on sewer line size.
- We recommend charging sewer SDFs by meter size, using AWWA equivalent factors, similar to the water fees.

Line size	Existing Fee
4"	\$2,500
6"	\$4,500
8"	\$25,635

Sewer Fees by Meter Size

Meter Size	Calculated SDF
5/8" x 3/4"	\$2,008
1"	\$5,020
1 1/2"	\$10,040
2"	\$16,064
3"	\$30,120
4"	\$50,201
6"	\$100,402

Combined Fees by Meter Size

Meter size	Current SDF	Calculated SDF	Difference
5/8" x 3/4"	\$4,900	\$3,538	(\$1,362)
1"	\$4,900	\$8,845	\$3,945
1 1/2"	\$10,740	\$17,690	\$6,950
2"	\$19,145	\$28,304	\$9,159
3"	\$34,705	\$53,070	\$18,365
4"	\$75,980	\$88,451	\$12,471
6"	\$172,095	\$176,902	\$4,807

HB 436 Procedural Requirements

- The report and calculated fees should be posted for public comment for a period of 45 days
- Comments received from public will be considered and adjustments made as necessary
- Public hearing on the system development fees
- Update the analysis at least once every 5 years

Next Steps

- Move forward with the buy-in method for the water and sewer systems
- Implement meter size based fees for both the water and sewer systems
- Publish report on the Town's website by early May