



City of High Point, NC

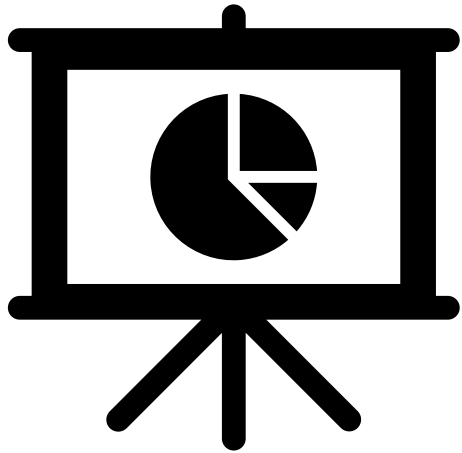
System Development Fee Study

City Council Presentation

August 3, 2020

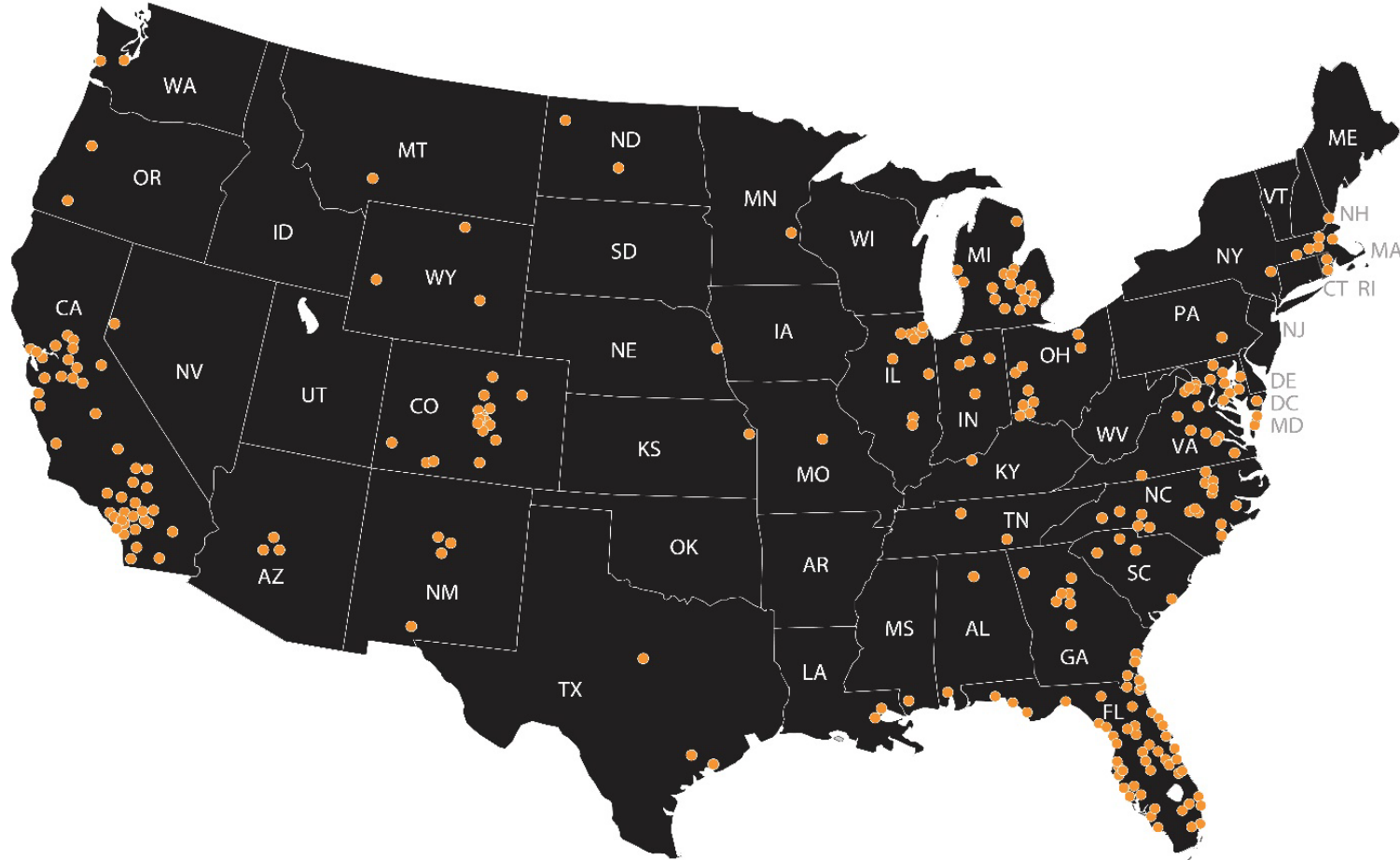


# Agenda



- Background
- Methodology
- System Development Fee Calculations
- Benchmarking
- Front Foot Charge Calculations
- Bill Impacts
- Recommendations

# Stantec Financial Services



>290

Communities we have served, accounting for 20+% of the US population!

**300+**

Combined years of **experience**

**1.5K+**

**Studies** in the last 10 years

**30+**

**Specialists** in utility financial management

**>500**

Utilities in our **benchmarking** database

**\$4B+**

**Debt supported** in past five years

## Current Approach

- The City does not currently collect system development fees from new water and sewer customers joining the utility
- The City currently collects an acreage charge and a front foot charge from customers joining the water and sewer systems

Utility	Acreage Charge (per Acre of property connecting)	Front Foot Charge (per linear foot of property frontage)
Water	\$350	\$15
Sewer	\$350	\$20

- Current fees do not account for differences in demands placed on utility system (i.e. one-acre residential property pays same as one-acre commercial property)



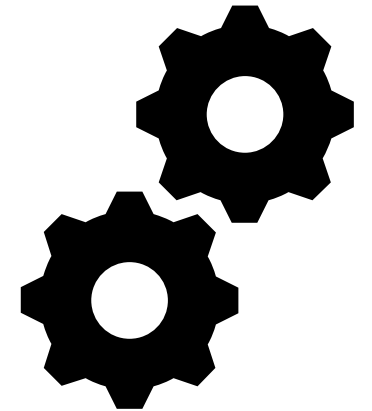
## System Development Fees

- Fees charged for new connections joining the water and sewer system
- Intended to recover cost of constructing water and sewer capacity, “growth pays for growth”
- Fees are applied based on units of service (representing potential demand on utility system)
- Fees are legislated in North Carolina
  - 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 Calculations

The fee should be calculated using one of the three methodologies identified in the law, as well as:

- 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
<b>Buy-In Method</b>	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
<b>Incremental Cost Method</b>	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
<b>Combined Method</b>	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 combined method for the City.**

## SDF Calculation

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

### 1) Value of Utility System

- Depreciated value of current assets in place, escalated to current replacement cost
- Plus: The value of future planned capital projects that will add capacity to the system

### 2) Credit

- Outstanding principal on utility debt and donated assets

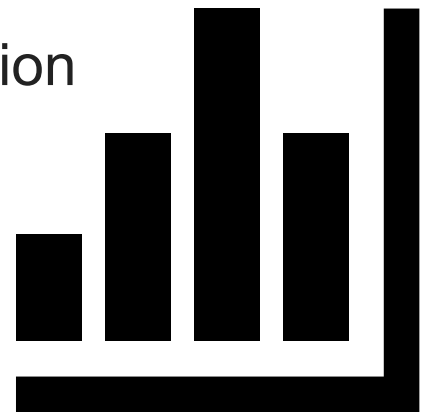
### 3) System Capacity

- Total capacity in utility system measured in units of service (Equivalent Residential Units or ERUs)



## Basis for Credit

- Donated water and sewer assets are removed since they were not funded by the City
- New connection will pay for debt service through user rates
- Removing outstanding principal from fee calculation ensures no double cost recovery
- This approach conforms with American Water Works Association M1 Manual



## Water SDF Calculation

- 1) Value of Utility System: \$169,152,954
- 2) Credit: \$38,376,330
- 3) System Capacity: 28.56 Million Gallons per Day

$$\frac{\$169,152,954 - \$38,376,330}{156,068 \text{ ERUs}^*} = \$838 \text{ per ERU}$$

*\*Note: 1 ERU = 183 GPD calculated based on 5-year average residential usage*



## Sewer SDF Calculation

- 1) Value of Utility System: \$382,930,997
- 2) Credit: \$95,871,306
- 3) System Capacity: 36.00 Million Gallons per Day

$$\frac{\$382,930,997 - \$95,871,306}{133,333 \text{ ERUs}^*} = \$2,153 \text{ per ERU}$$

*\*Note: 1 ERU = 270 GPD (90 GPD per bedroom, 3-bedroom house)*

## Scaling of System Development Fees

- SDFs must be applied based on units of service (represents potential demand)
- SDFs are often scaled by meter size based on hydraulic capacity of meter
- Common to use factors published by AWWA

Meter size	AWWA Meter Equivalents (Units of Service)
3/4" x 5/8"	1.00
1"	1.67
1 1/2"	3.33
2"	5.33
3"	11.67
4"	20.00
6"	45.00

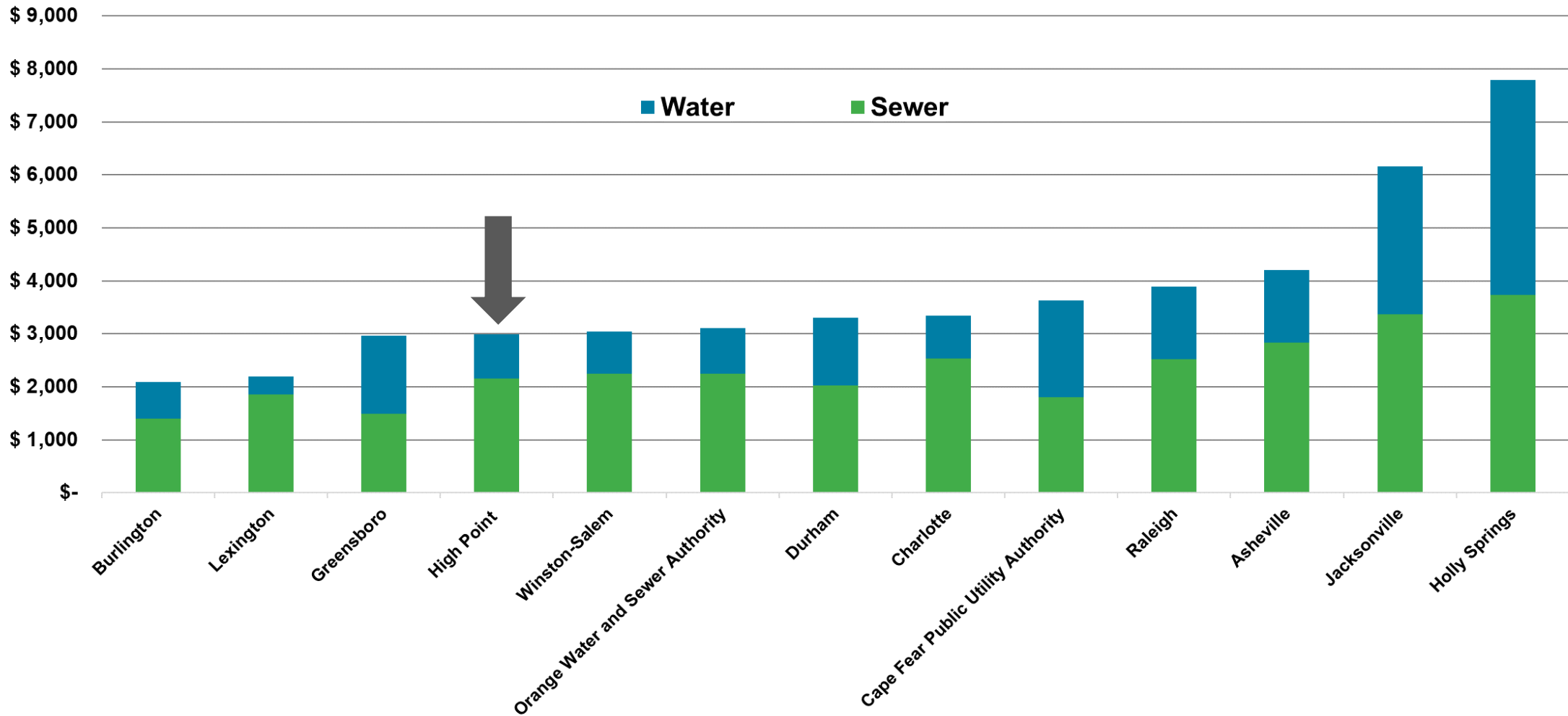
## Resulting System Development Fees

Meter size	Water SDF	Sewer SDF	Total
5/8" x 3/4"	\$838	\$2,153	\$2,991
1"	\$1,397	\$3,588	\$4,985
1 1/2"	\$2,793	\$7,177	\$9,970
2"	\$4,469	\$11,483	\$15,952
3"	\$9,777	\$25,118	\$34,895
4"	\$16,760	\$43,060	\$59,820
6"	\$37,710	\$96,885	\$134,595

*A typical single-family home requires a 5/8" or 3/4" meter*



# Combined Residential Water & Sewer SDF Comparison (3/4" Meter)



# Benchmarking

Water													
Meter Size	High Point	Greensboro	Burlington	Winston-Salem	Durham	Raleigh	Charlotte	Holly Springs	Orange Water and Sewer Authority	Lexington	Cape Fear Public Utility Authority	Asheville	Jacksonville
5/8" or 3/4"	\$ 838	\$ 1,472	\$ 684	\$ 795	\$ 1,277	\$ 1,373	\$ 809	\$ 4,054	\$ 864	\$ 344	\$ 1,830	\$ 2,058	\$ 4,199
1"	\$ 1,397	\$ 2,450	\$ 1,142	\$ 1,987	\$ 3,193	\$ 3,433	\$ 2,023	\$ 4,481	\$ 7,338	\$ 860	\$ 4,575	\$ 3,430	\$ 6,999
1.5"	\$ 2,793	\$ 4,900	\$ 2,276	\$ 3,974	\$ 6,385	\$ 6,865	\$ 4,046	\$ 6,188	\$ 14,666	\$ 1,720	\$ 9,150	\$ 6,860	\$ 13,997
2"	\$ 4,469	\$ 7,844	\$ 3,644	\$ 6,358	\$ 10,216	\$ 10,984	\$ 6,474	\$ 7,041	\$ 23,466	\$ 2,752	\$ 14,640	\$ 10,976	\$ 22,396
3"	\$ 9,777	\$ 15,684	\$ 6,836	\$ 11,921	\$ 20,432	N/A	\$ 12,948	\$ 7,895	\$ 46,933	\$ 5,160	\$ 27,450	\$ 21,952	\$ 41,992
4"	\$ 16,760	\$ 24,506	\$ 11,395	\$ 19,868	\$ 31,925	\$ 34,325	\$ 20,232	\$ 8,748	\$ 73,332	\$ 8,600	\$ 45,750	\$ 34,300	\$ 69,987
6"	\$ 37,710	\$ 49,012	\$ 22,798	\$ 39,737	\$ 63,850	\$ 68,650	\$ 40,463	\$ 17,283	\$ 146,664	\$ 17,200	\$ 91,500	\$ 68,600	N/A

Sewer													
Meter Size	High Point	Greensboro	Burlington	Winston-Salem	Durham	Raleigh	Charlotte	Holly Springs	Orange Water and Sewer Authority	Lexington	Cape Fear Public Utility Authority	Asheville	Jacksonville
5/8" or 3/4"	\$ 2,153	\$ 1,488	\$ 1,406	\$ 2,246	\$ 2,022	\$ 2,522	\$ 2,541	\$ 3,741	\$ 2,251	\$ 1,852	\$ 1,800	\$ 4,254	\$ 5,050
1"	\$ 3,588	\$ 2,480	\$ 2,348	\$ 5,614	\$ 5,055	\$ 6,305	\$ 6,352	\$ 4,135	\$ 14,192	\$ 4,630	\$ 4,500	\$ 7,090	\$ 8,416
1.5"	\$ 7,177	\$ 4,960	\$ 4,681	\$ 11,228	\$ 10,110	\$ 12,610	\$ 12,703	\$ 4,922	\$ 28,366	\$ 9,260	\$ 9,000	\$ 14,180	\$ 16,832
2"	\$ 11,483	\$ 7,936	\$ 7,493	\$ 17,966	\$ 16,176	\$ 20,176	\$ 20,352	\$ 5,710	\$ 45,386	\$ 14,816	\$ 14,400	\$ 22,688	\$ 26,932
3"	\$ 25,118	\$ 15,872	\$ 14,058	\$ 33,686	\$ 30,330	N/A	\$ 40,651	\$ 7,285	\$ 90,773	\$ 27,780	\$ 27,000	\$ 45,376	\$ 50,497
4"	\$ 43,060	\$ 24,800	\$ 23,434	\$ 56,143	\$ 50,550	\$ 63,050	\$ 63,517	\$ 8,073	\$ 141,832	\$ 46,300	\$ 45,000	\$ 70,900	\$ 84,162
6"	\$ 96,885	\$ 49,598	\$ 46,862	\$ 112,286	\$ 101,100	\$ 126,100	\$ 127,034	\$ 15,948	\$ 283,664	\$ 92,600	\$ 90,000	\$ 141,800	N/A

## Front Foot Charge

- When connecting to an existing water and sewer line City should only collect SDFs
- If City is required to extend existing lines to serve new connections a front foot charge can be imposed
- Front foot charge would be in addition to the system development fee
- Similar calculation methodology as SDFs

## Water Front Foot Charge Calculation

- 1) Value of Distribution System: \$26,902,698
- 2) Credit: \$10,637,583
- 3) Distribution System: 2.27 Million Linear Feet (LF) of Pipe\*

$$\frac{\$26,902,698 - \$10,637,583}{2,271,366 \text{ LF}^*} = \$7 \text{ (rounded) per LF}$$

*\*Note: This represents the total distribution LF, net of donations, with a 25% growth factor, assuming that the total LF of distribution pipe will increase by approx. 25% over time.*

## Sewer Front Foot Charge Calculation

- 1) Value of Collection System: \$49,208,851
- 2) Credit: \$16,959,044
- 3) Collection System: 3.21 Million LF of Collection Pipe\*

$$\frac{\$49,208,851 - \$16,959,044}{3,210,959 \text{ LF}^*} = \$10 \text{ (rounded) per LF}$$

*\*Note: This represents the total collection LF, net of donations, with a 25% growth factor (assuming that the total LF of collection pipe will increase by approx. 25% by the over time).*



# Single Family Customer Impacts

Comparison

Residential Bill Impacts - New Connection				
LF 128				
Acres 0.44				
Meter 5/8"				
		<u>Current</u>		<u>Proposed</u>
<b>Water</b>				
Frontage Fee	\$	1,920	\$	-
Acreage Fee		154		-
SDF		-		838
Tap Fee		1,610		1,610
Meter Fee		205		205
<b>Total Water</b>	<b>\$</b>	<b>3,889</b>	<b>\$</b>	<b>2,653</b>
<b>Sewer</b>				
Frontage Fee	\$	2,560	\$	-
Acreage Fee		154		-
SDF		-		2,153
Tap Fee		2,080		2,080
<b>Total Sewer</b>	<b>\$</b>	<b>4,794</b>	<b>\$</b>	<b>4,233</b>
<b>Total</b>	<b>\$</b>	<b>8,683</b>	<b>\$</b>	<b>6,886</b>
% Change				-20.7%

Residential Bill Impacts - Line Extension				
LF 128				
Acres 0.44				
Meter 5/8"				
		<u>Current</u>		<u>Proposed</u>
<b>Water</b>				
Frontage Fee	\$	1,920	\$	896
Acreage Fee		154		-
SDF		-		838
Tap Fee		1,610		1,610
Meter Fee		205		205
<b>Total Water</b>	<b>\$</b>	<b>3,889</b>	<b>\$</b>	<b>3,549</b>
<b>Sewer</b>				
Frontage Fee	\$	2,560	\$	1,280
Acreage Fee		154		-
SDF		-		2,153
Tap Fee		2,080		2,080
<b>Total Sewer</b>	<b>\$</b>	<b>4,794</b>	<b>\$</b>	<b>5,513</b>
<b>Total</b>	<b>\$</b>	<b>8,683</b>	<b>\$</b>	<b>9,062</b>
% Change				4.4%

# Subdivision Customer Impacts

Comparison

Subdivision Bill Impacts					
	LF 1,500				
	Acres 30				
	5/8" or 3/4" Meters 100				
	<u>High Point</u>	<u>High Point</u>	<u>Greensboro*</u>	<u>Winston-Salem</u>	
	<u>Current</u>	<u>Proposed</u>			
<b>Water</b>					
Frontage Fee	\$ 22,500	\$ -	\$ -	\$ -	
Acreage Fee	10,500	-	-	-	
SDF	-	83,800	147,200	79,500	
Tap Fee	-	-	-	-	
Meter Fee	20,500	20,500	20,000	6,000	
<b>Total Water</b>	<b>\$ 53,500</b>	<b>\$ 104,300</b>	<b>\$ 167,200</b>	<b>\$ 85,500</b>	
<b>Sewer</b>					
Frontage Fee	\$ 30,000	\$ -	\$ -	\$ -	
Acreage Fee	10,500	-	-	-	
SDF	-	215,300	148,800	224,600	
Tap Fee	-	-	-	-	
<b>Total Sewer</b>	<b>\$ 40,500</b>	<b>\$ 215,300</b>	<b>\$ 148,800</b>	<b>\$ 224,600</b>	
<b>Total</b>	<b>\$ 94,000</b>	<b>\$ 319,600</b>	<b>\$ 316,000</b>	<b>\$ 310,100</b>	
% Change		240.0%			

\* Represents fees for a 3/4" meter

# Commercial Customer Impacts

Commercial Bill Impacts				
LF 325				
Acres 5				
Meter 2"				
		<u>Current</u>		<u>Proposed</u>
<b>Water</b>				
Frontage Fee	\$	4,875	\$	-
Acreage Fee		1,750		-
SDF		-		4,469
Tap Fee		-		-
Meter Fee		590		590
<b>Total Water</b>	<b>\$</b>	<b>7,215</b>	<b>\$</b>	<b>5,059</b>
<b>Sewer</b>				
Frontage Fee	\$	6,500	\$	-
Acreage Fee		1,750		-
SDF		-		11,483
Tap Fee		-		-
<b>Total Sewer</b>	<b>\$</b>	<b>8,250</b>	<b>\$</b>	<b>11,483</b>
<b>Total</b>	<b>\$</b>	<b>15,465</b>	<b>\$</b>	<b>16,542</b>
% Change				7.0%

# Recommendations



- Move forward with the combined method
- Publish report on City's web site for 45-day public comment period
- Hold public hearing to adopt fees after the public comment period is complete



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Additional Questions/Discussion