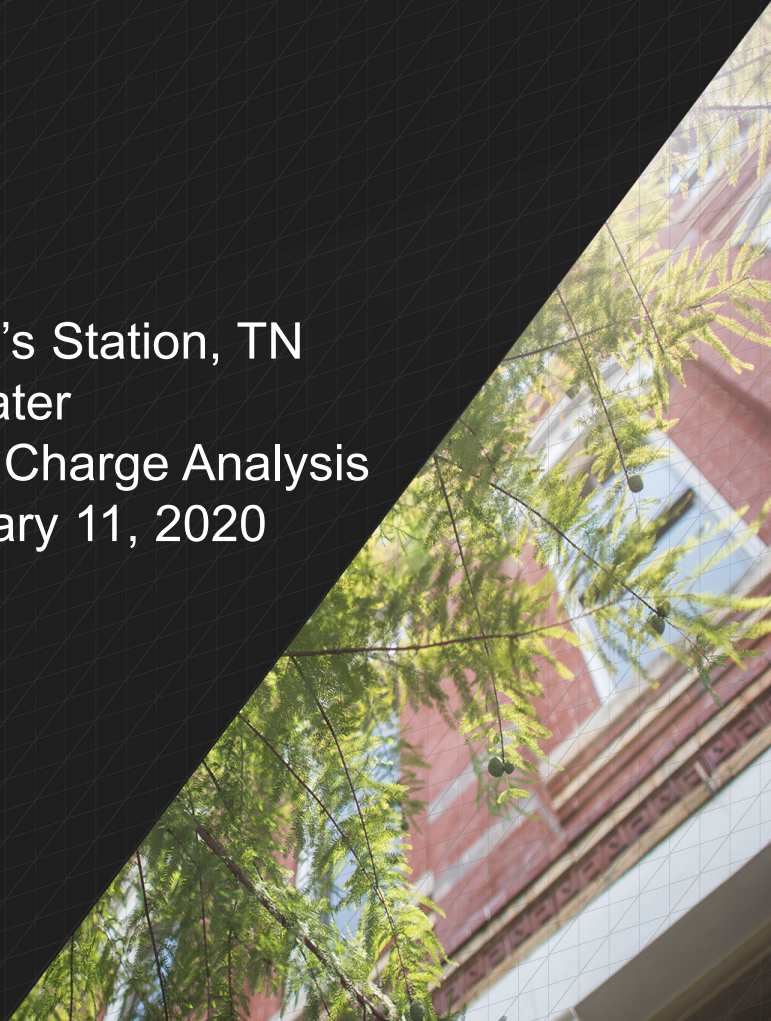


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## Town of Thompson's Station, TN Wastewater System Development Charge Analysis Presented February 11, 2020



## System Development Fees - Definition

- A contribution of capital toward existing or planned future plant facilities necessary to meet the service needs of new customers to which such fees apply.
- Two methods used to determine the amount of these charges are the buy-in method and the incremental-cost pricing method.
- Charges are intended to provide funds to be used to finance all or part of capital improvements necessary to serve new customers.

\*AWWA's, Principles of Water Rates, Fees and Charges, p328

## System Development Fees – Methodologies

- Equity (Buy-In) Method – This approach attempts to assess new customers a fee to approximate the equity position of current customers. (AWWA M-1, p199)
- Incremental Cost Method – Assigns to new development the incremental cost of system expansion needed to serve the new development. (AWWA M-1, p202).
- Given the dynamics of the Town's wastewater system, the Incremental Cost Method was applied.

## Process Overview

1. Develop Equivalent Residential Unit using 12 months ended June 2018 billing statistics.
2. Determine the number of ERU's of capacity being added.
3. Incremental Cost - Calculate the average investment per ERU on the additional capacity being added.

# Develop Equivalent Residential Unit

## Incremental Approach

Annual Residential Sales (Gals)	85,481,600
Annual Residential Billings	17,448
Monthly Volume/Customer (Gals)	4,899
Annual Volume/Customer (Gals)	58,791
530,000 gallons Additional Daily Capacity	193,450,000
Equivalent Residential Units (ERU)	3,290

# Determine the Avg. Investment Per ERU in New Capacity

Equivalent Residential Units (ERU)	3,290
Projected Growth Related Investment in Plant	<b>\$ 20,000,000</b>
Projected Interest Expense on Long Term Debt	<u>\$ 10,356,250</u>
Projected Cost of Capacity Related Investment	<u><u>\$ 30,356,250</u></u>
Average Investment/ERU	<b>\$ 9,225</b>

\*Does not include labor, materials, inspection, etc.

# Fee Escalation by Meter Size

Meter Size (Inches)	Multiplier		Fee
3/4	1.00	\$	9,225
1	1.33	\$	12,301
1 1/2	2.00	\$	18,451
2	2.67	\$	24,601
3	4.00	\$	36,902
4	5.33	\$	49,202
6	8.00	\$	73,804
8	10.67	\$	98,405
10	13.33	\$	123,006
12	16.00	\$	147,607

# Fee Escalation by Estimated Max Flow

Maximum Rated Flow GPM	Meter Size	Multiplier	Fee
30	3/4	1.00	\$ 9,225
50	1	1.67	\$ 15,376
100	1 1/2	3.33	\$ 30,752
160	2	5.33	\$ 49,202
320	3	10.67	\$ 98,405
500	4	16.67	\$ 153,758
1,000	6	33.33	\$ 307,515
1,600	8	53.33	\$ 492,024
4,200	10	140.00	\$ 1,291,563
5,300	12	176.67	\$ 1,629,830

\*Meter flows would need to be confirmed by water provider