

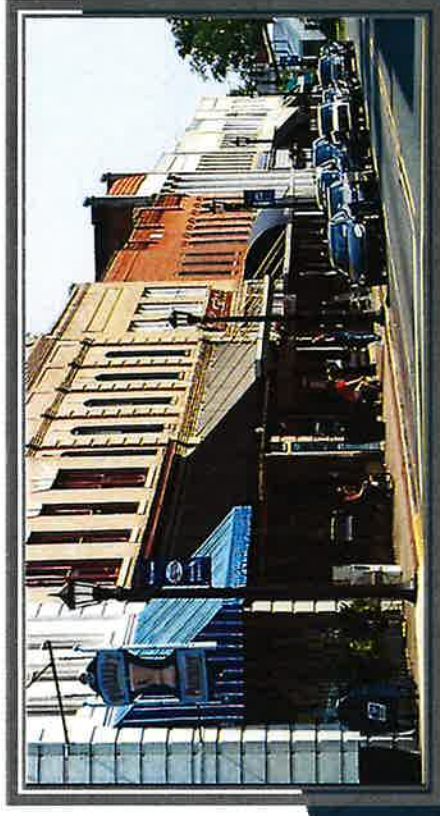
# Town of Hertford, NC

Water & Wastewater System Development Fee Study

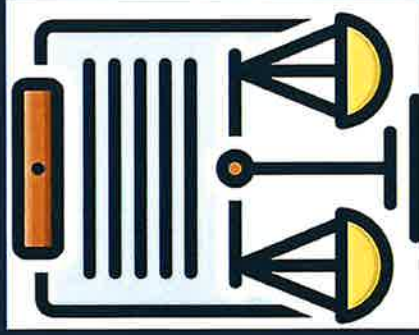
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September 9, 2024

Daryll Parker, Principal Consultant



# Governing Law



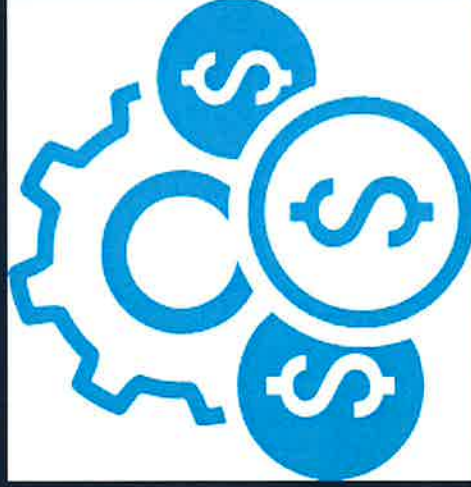
- United States Supreme Court has said growth is to pay for growth
- N.C.G.S. Section 1, Chapter 162A, Article 8
- SDF Defined By 162A-201(9)
  - Imposed on new development
  - Fund costs of water/sewer improvements (existing and planned)
  - “Necessitated by and attributable to such new development”

# Fee Adoption Procedures

- Fee analysis prepared by a financial professional
- Must employ “general accepted accounting, engineering, and planning methodologies”
- CIP planning horizon of 5-20 years (incremental cost)
- Posted online for at least 45 days (public comment)
- Public Hearing
- Modifications to fee analysis, if needed
- Adopt fee by resolution or ordinance
- Update Analysis at least every 5 years



# Current Situation



- Existing SDFs
- Comparison to other utilities
- Capital Improvement Program (CIP)

# Existing SDFs

Description	Existing Fees By Meter Size		
	Water	Wastewater	Total
<b>Meter Size:</b>			
5/8 x 3/4 Inch	\$ 350	\$ 550	\$ 900
1.0 Inch	\$ 550	\$ 850	\$ 1,400
1.5 Inch	\$ 2,000	\$ 3,000	\$ 5,000
2.0 Inch	\$ 3,500	\$ 5,500	\$ 9,000
4.0 Inch	\$ 8,000	\$ 12,000	\$ 20,000
6.0 Inch	\$ 10,000	\$ 15,000	\$ 25,000
8.0 Inch	\$ 12,000	\$ 18,000	\$ 30,000
10.0 Inch	\$ 14,000	\$ 21,000	\$ 35,000
12.0 Inch	\$ 15,000	\$ 25,000	\$ 40,000



# Comparison With Other Utility Systems

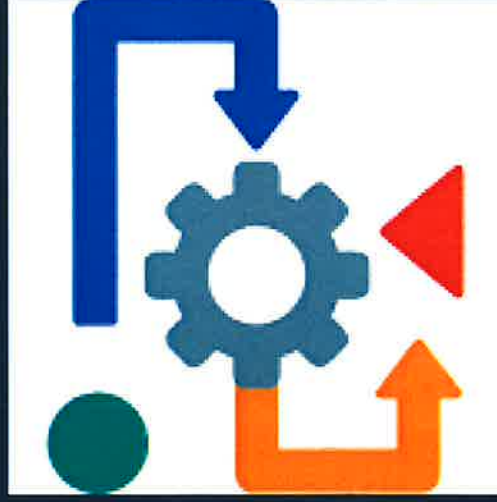


# Capital Improvement Program

Description	Total CIP	Excluded Capital	Recoverable Capital
<b><u>Water:</u></b>			
Treatment Facilities	\$ 0	\$ 0	\$ 0
Transmission Facilities	5,000,000	3,500,000	1,500,000
Other Facilities	1,920,000	1,920,000	0
Total	\$ 6,920,000	\$ 5,420,000	\$ 1,500,000
<b><u>Wastewater:</u></b>			
Treatment Facilities	\$ 3,605,000	\$ 2,110,000	\$ 1,495,000
Transmission Facilities	3,090,000	3,090,000	0
Other Facilities	1,920,000	1,920,000	0
Total	\$ 8,615,000	\$ 7,120,000	\$ 1,495,000
<b><u>Combined:</u></b>			
Treatment Facilities	\$ 3,605,000	\$ 2,110,000	\$ 1,495,000
Transmission Facilities	8,090,000	6,590,000	1,500,000
Other Facilities	3,840,000	3,840,000	0
Total	\$ 15,535,000	\$ 12,540,000	\$ 2,995,000



# Methodology



- Methods to calculate fee based on N.C.G.S. 162A-207
  - **Buy-In:** Includes existing infrastructure that has been built and maintained
  - **Incremental/Marginal Cost:** Includes new facilities (capital improvement program or “CIP”) to be built to accommodate new growth
  - **Combined:** A blend of new and existing facilities

# Existing Assets - Water

## Water System:

- Water Supply Facilities
- Water Treatment Facilities
- Storage Facilities
- Major Transmission Lines
- Major Pumping Facilities



# Existing Assets - Wastewater

## Wastewater System:

- Major Transmission Lines & Force Mains
- Major Lift Stations
- Flow Equalization Facilities
- Wastewater Treatment Facilities
- Disposal Facilities



# Existing Assets - Excluded

## Excluded From Recovery:

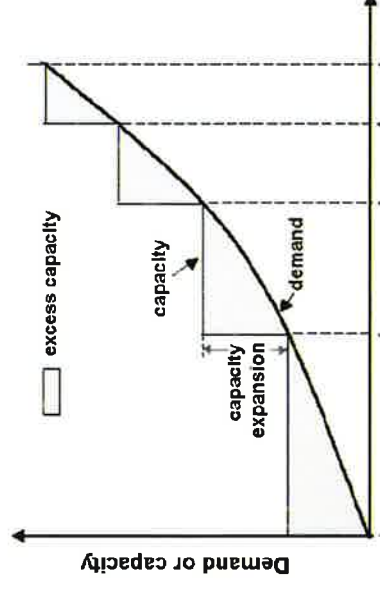
- Small/Local Distribution & Collection Lines
- Meters
- Neighborhood-Specific Facilities
- Developer Contributed Facilities
- Grant Funded Facilities



# Planned Assets - Recoverable

## Capital Improvement Program:

- Capacity Expansion Projects
- Major System Upgrades
  - Improved Operating Efficiency
  - Regulatory Requirements



# Planned Assets – Nonrecoverable

## Excluded Capital Improvements:

- Renewal & Replacement (R&R)
  - Aged/Deteriorated Facilities
  - No Added Capacity
- Other Capital Items
  - Vehicles & Equipment
  - Administrative Facilities
  - Grant/Developer Funded Projects



# Recoverable Costs

Description	Recoverable Facilities		
	Water	Wastewater	Total
<b>Existing Facilities:</b>			
Treatment Facilities	\$ 5,009,323	\$ 10,663,964	\$ 15,673,287
Transmission Facilities	258,658	1,068,860	1,327,518
Subtotal	\$ 5,267,981	\$ 11,732,824	\$ 17,000,805
<b>Capital Improvement Program:</b>			
Treatment Facilities	\$ 0	\$ 1,495,000	\$ 1,495,000
Transmission Facilities	1,500,000	0	1,500,000
Subtotal	\$ 1,500,000	\$ 1,495,000	\$ 2,995,000
<b>Combined Recoverable Costs:</b>			
Treatment Facilities	\$ 5,009,323	\$ 12,158,964	\$ 17,168,287
Transmission Facilities	1,758,658	1,068,860	2,827,518
Total	\$ 6,767,981	\$ 13,227,824	\$ 19,995,805



# Combined Method – Recoverable Costs

Existing Recoverable Costs  
(Buy-In)

Recoverable CIP Projects  
(Incremental Cost)

Combined

Total Recoverable Facility  
Costs

Less Debt Service Credit  
&  
25% CIP Credit

Net Recoverable Facility Costs

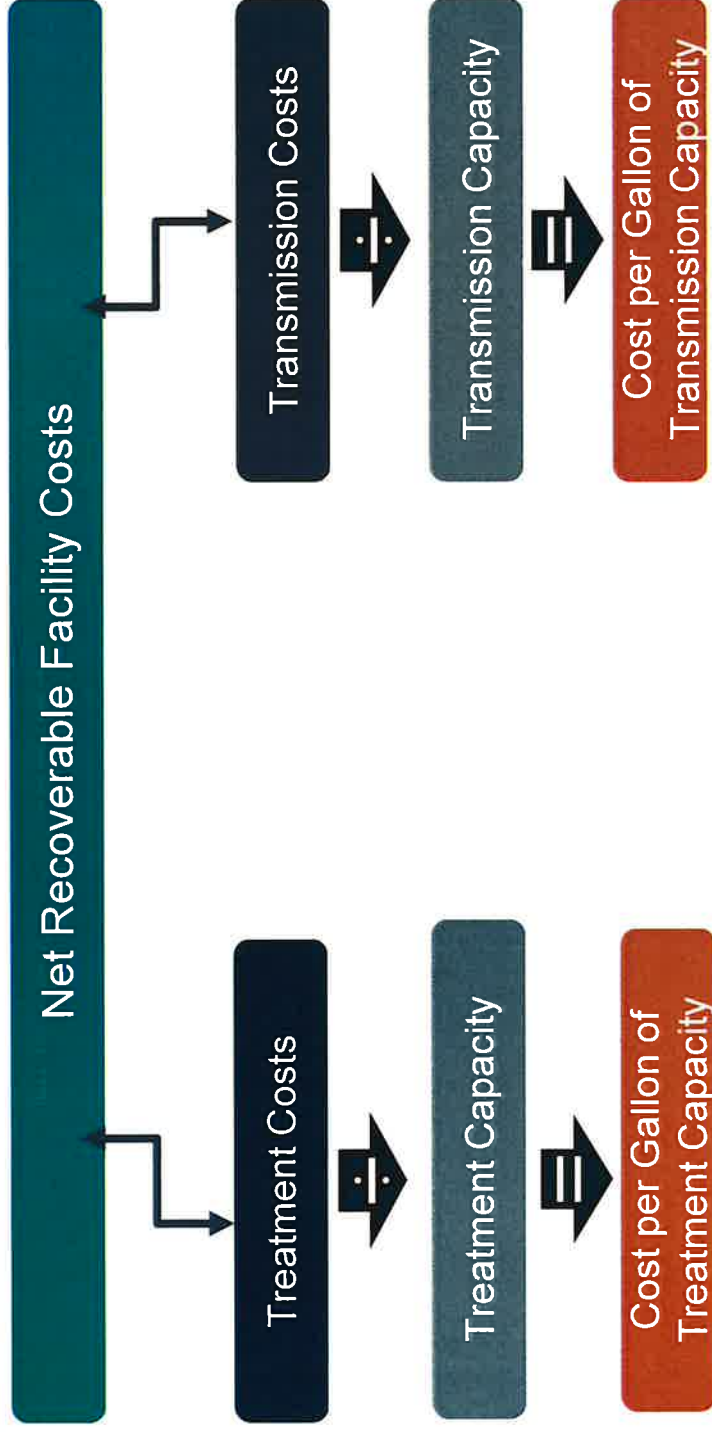


# Net Recoverable Costs

Description	Net Recoverable Facilities		
	Water	Wastewater	Total
<b>Combined Recoverable Costs:</b>			
Treatment Facilities	\$ 5,009,323	\$ 12,158,964	\$ 17,168,287
Transmission Facilities	1,758,658	1,068,860	2,827,518
Subtotal	\$ 6,767,981	\$ 13,227,824	\$ 19,995,805
<b>Less Combined Credits:</b>			
Treatment Facilities	\$ (1,820,935)	\$ (3,420,116)	\$ (5,241,051)
Transmission Facilities	(469,025)	(305,341)	(774,366)
Subtotal	\$ (2,289,960)	\$ (3,725,457)	\$ (6,015,417)
<b>Net Capital Costs:</b>			
Treatment Facilities	\$ 3,188,388	\$ 8,738,848	\$ 11,927,236
Transmission Facilities	1,289,633	763,519	2,053,152
Net Recoverable Costs	\$ 4,478,021	\$ 9,502,367	\$ 13,980,388



# Methodology – Cost of Capacity

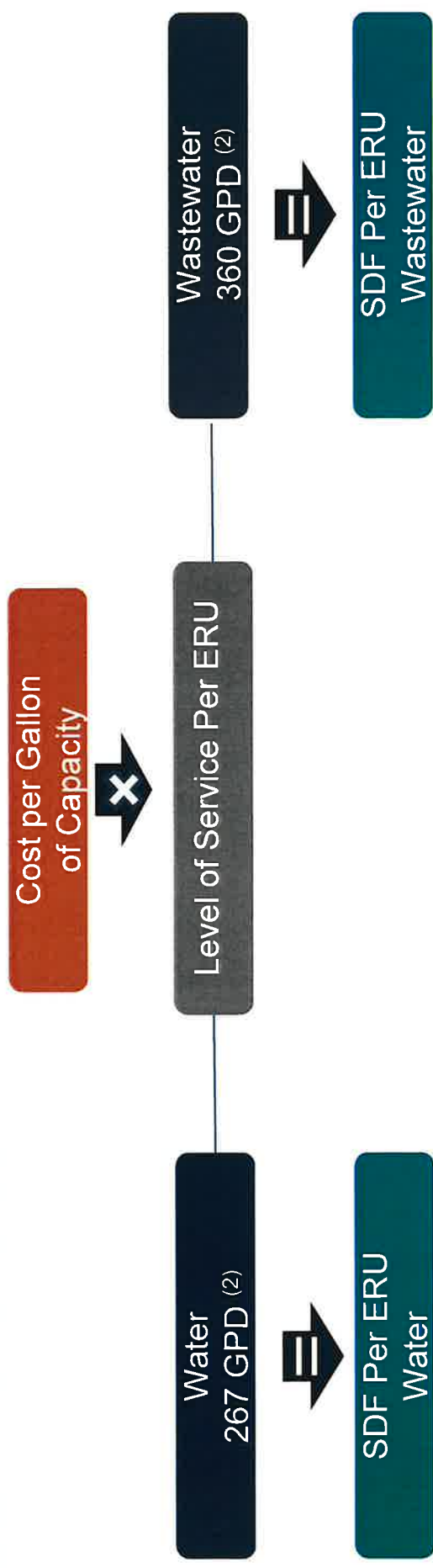


# Cost Per Gallon of Capacity

Description	Cost Per Gallon of Capacity	
	Water	Waste water
<b>Net Recoverable Facilities:</b>		
Treatment Facilities	\$ 3,188,388	\$ 8,738,848
Transmission Facilities	1,289,633	763,519
<b>Total</b>	<b>\$ 4,478,021</b>	<b>\$ 9,502,367</b>
<b>Estimated Capacity (MGD):</b>		
Treatment Facilities	0.283	0.800
Transmission Facilities	0.638	1.064
<b>Cost Per Gallon:</b>		
Treatment Facilities	\$ 11.27	\$ 10.92
Transmission Facilities	2.02	0.72
<b>Total</b>	<b>\$ 13.29</b>	<b>\$ 11.64</b>



# Methodology – SDF Per ERU (1)



(1) Equivalent Residential Unit

(2) In accordance with the utility's existing planning methodology, it is assumed that 1 ERU requires a standard level of service of 267 gpd of water and 360 gpd of wastewater system capacity.



# Comparison of Fees Per ERU

Description	System Development Fee Per ERU		
	Existing	Calculated	Difference
<b>System Development Fees:</b>			
Water	\$ 350	\$ 3,530	\$ 3,180
Wastewater	550	4,180	3,630
Total	\$ 900	\$ 7,710	\$ 6,810



# Proposed/Calculated SDFs By Meter-Size

Description	Meter Factor <sup>(1)</sup>	Proposed/Calculated Fees By Meter Size		
		Water	Wastewater	Total
<b>Meter Size:</b>				
5/8 x 3/4 Inch	1.00	\$ 3,530	\$ 4,180	\$ 7,710
1.0 Inch	2.50	\$ 8,825	\$ 10,450	\$ 19,275
1.5 Inch	5.00	\$ 17,650	\$ 20,900	\$ 38,550
2.0 Inch	8.00	\$ 28,240	\$ 33,440	\$ 61,680
3.0 Inch	16.00	\$ 56,480	\$ 66,880	\$ 123,360
4.0 Inch	25.00	\$ 88,250	\$ 104,500	\$ 192,750
6.0 Inch	50.00	\$ 176,500	\$ 209,000	\$ 385,500
8.0 Inch	80.00	\$ 282,400	\$ 334,400	\$ 616,800
10.0 Inch	115.00	\$ 405,950	\$ 480,700	\$ 886,650
12.0 Inch	215.00	\$ 758,950	\$ 898,700	\$ 1,657,650

(1) Meter-size equivalency factors established by the AWWA and identified in AWWA Standards C700, M1 and M22. Such factors are commonly applied consistently for both water and wastewater fee calculations.



# Comparison With Other Utility Systems



# Conclusion



- Questions?
- Comments?

