



City of Franklin

109 3rd Ave S
Franklin, TN 37064
(615) 791-3217

Meeting Agenda

Board of Mayor & Alderman

Monday, November 28, 2022

5:00 PM

Board Room

Special Meeting

PUBLIC NOTICE of SPECIAL MEETING

Notice is hereby given, a Special Meeting of the City of Franklin Board of Mayor and Alderman will be held on Monday, November 28, 2022. The Special Meeting will be held at 5:00 p.m., in the Board Room of City Hall, 109 3rd. Ave S., Franklin, Tennessee for the following purpose:

- 1. Presentation On Proposed Water And Sewer Impact Fees*

CALL TO ORDER

NEW BUSINESS

1. Presentation On The Proposed Water And Sewer Impact Fees
WS 2/22/22; 3/22/22; 9/27/22; 10/11/22; 11/8/22

Sponsors: Michelle Hatcher, Brian Goodwin

EXECUTIVE SESSION

ADJOURN



File #: 21-03463

DATE: November 21, 2022

TO: Board of Mayor and Aldermen

FROM: Eric Stuckey, City Administrator
Michelle Hatcher, Director of Water Management
Brian Goodwin, Asst. Director of Water Management

SUBJECT:

Presentation On The Proposed Water And Sewer Impact Fees
WS 2/22/22; 3/22/22; 9/27/22; 10/11/22; 11/8/22

PURPOSE:

The purpose of this memorandum is to provide information to the Franklin Board of Mayor and Aldermen (BOMA) concerning the water and sewer impact fees associated with new connections.

BACKGROUND/STAFF COMMENTS:

Impact fees are a fee paid by any entity making a connection to the public water and sewer system, which is made for the purpose of enabling the City to repair and replace its facilities as necessary or to provide for additions, replacements, improvements, and expansions to the systems, such improvements being required periodically because of growth.

These fees, for both water and sewer, are currently calculated based upon water meter size for the entity. The Water Management Department is proposing recalculating impact fees based on building occupancy, in addition to increasing the amount of the impact fee to account for needed future infrastructure.

This presentation will discuss the proposed Ordinance modifications and implementation of the Single Family Use Equivalent Handbook for a description of the calculations.

FINANCIAL IMPACT:

Updated impact fees will more accurately assign system development and capacity costs to new development and will be determined upon Board approval.

RECOMMENDATION:

Staff recommends that the Board of Mayor and Aldermen acknowledge the presentation for the Water and Sewer Impact Fee in preparation of a change to Title 18 of the City's Municipal Code.



IMPACT FEES – PART I METER SIZE TO SFUE METHODOLOGY PRESENTATION

JANUARY 26, 2021

MICHELLE HATCHER, PE,
DIRECTOR

BRIAN GOODWIN, PE,
ASSISTANT DIRECTOR

WATER MANAGEMENT
DEPARTMENT

AGENDA

- Background
- Previous Ordinance changes
- Existing Meter size methodology for impact fee determination
- Proposed methodology, development, and example calculations
- Conclusions
- Next steps

BACKGROUND

- Current impact fees determined based upon water meter size (both City customers and non-City residents).
 - Residential meter ($\frac{3}{4}$ "")
 - Water = \$2,089.00 + tap installation (meter only or complete installation)
 - Sewer = \$3,544.00 + tap installation (tap in place or not in place)
- Meter size is not an equitable capture of the impacts to the system based upon wastewater flow received in the collection system and water reclamation facility and the level of required treatment.
- **Impact fees (formerly access fee & system development fee) not increased in 13-years – Ordinance 2007-120**

PREVIOUS ORDINANCE CHANGES

■ Ordinance 2007-120 (SEWER)

- Changed access fee from \$1,470 for ¾" meter to \$2,100 for ¾" meter.
- System development fee remained the same.
- Installation fee, tap in place is \$263.00 – the same amount in the 2020 Municipal Code.
- Installation fee, tap not in place is \$1,240.00 – the same amount in the 2020 Municipal Code.
- Introduces the ability for recapture from resident for additional work not covered in the above installation fees.
- Effective March 1, 2008.

■ ORDINANCE 2018-26

- Combined system development and access fee into impact fee.

EXISTING METER SIZE METHODOLOGY FOR IMPACT FEE DETERMINATION

	WATER	SEWER
Meter Size	Impact Fee	Impact Fee
3/4" and 5/8"	\$2,089.00	\$3,544.00
1"	\$8,358.00	\$14,175.00
1 1/2"	\$20,009.00	\$34,020.00
2"	\$26,745.00	\$45,360.00
3"	\$58,506.00	\$99,225.00
4"	\$83,580.00	\$141,750.00
6"	\$200,592.00	\$340,200.00
8"	\$250,740.00	\$425,250.00

- Current methodology by meter size incentivizes installation of an undersized meter rather than water usage determined from actual occupancy.
- Discourages the use of fire suppression systems.
- How do we accurately predict the impact to the system?
 - Increased maintenance costs
 - Increase treatment costs
 - Stringent NPDES permit limits

PROPOSED METHODOLOGY

- How to accurately predict wastewater loading to the system?
- Proposed structure based on Single Family Unit Equivalent (SFUE).
 - Provides equitable assessment of fees based on projected demands by the developer as verified through City Staff.
 - Fees tied to projected demands that drive capital investments and planning.
 - Encourages meter sizing based on demands; eliminates meter sizing decisions based on fees.
 - Encourages the use of fire suppression systems.
- Single Family Unit Equivalent (SFUE) = 350 gallons/day
 - One single family residential house = One SFUE
 - Multi-family units, commercial buildings, other uses = Multiple SFUEs

METHODOLOGY

- Review of adopted 2018 International Building Code to determine actual occupancy of buildings and who/what would be contributing to the collection system/water reclamation facility.
- Selected various structure uses within the City for comparison (school, office building, assisted living facility, gas station, restaurant, church, etc.)
- Reviewed historical water consumption, compared existing impacts to observed impacts, compared existing impact to occupancy loading.
- Use these data points to determine protocol for SFUE determination to eliminate meter size methodology.

METHODOLOGY DEVELOPMENT

- Using the building plans submitted during the Plan Review process, the square footage of usable spaces was determined.
- Those usable spaces correlated with the International Building Code (IBC) occupancy classes
 - Examples include storage, business occupancy, hazardous, mercantile, assembly, institutional, transient residential, etc.
- Occupancy classes then correlated with the Occupancy Load Factor (OLF = # of occupants/sq. ft) based on usage groups as outlined in the IBC.
- Demand factor pulled from Projected Flow Examples (current availability application) or other flow scenarios (DF = gallons/day/OL).
- Building sq. ft divided by OLF times the DF = Total Demand
- Total Demand / 350 gallons/day = # SFUEs

STANDARD VALUES

Occupancy Groups	Occupancy Factor (Occ load/sq-ft)	Demand Factor (gal/person)
A = Assembly	20	3.25
B = Business	100	25
B2 = Business Heavy	3	4.25
E = Educational	50	4
F = Factory	500	25
H = High Hazard	200	5
I = Institutional	100	7
M = Mercantile	30	7
R = Residential	1	350
R2 = Residential	1	100
S = Storage Group	300	25
U = Utility	300	25

- 2018 International Building Code (adopted by BNS)
- Modified to define more appropriate values for certain structures.

SFUE METHODOLOGY CALCULATION - I

OCCUPANCY EXAMPLE 1	Occupancy Load Factor (sq-ft/person)	Building Square Footage	Demand Factor (gal/people)	Total Demand	# SFUE's
Business	100	2,000	25	500	1.43
Residential	1	5 ★	350	1750	5.00

- Total Demand = (Bldg Sq. Ft. / OLF) x DF
- Total Demand / (350 gallons/day) = # SFUEs
- Single building can have multiple uses summing a total of SFUEs
- Impact fee based off 6.43 SFUE demand on system
- ★ denotes a single family unit equivalent number

SFUE METHODOLOGY CALCULATION - 2

OCCUPANCY EXAMPLE 2	Occupancy Load Factor (sq-ft/person)	Building Square Footage	Demand Factor (gal/people)	Total Demand	# SFUE's
Educational	50	183,020	4	14,642	41.83

- $\text{Total Demand} / (350 \text{ gallons/day}) = \# \text{ SFUEs}$
- Single building can have multiple uses summing a total of SFUEs
- Impact fee based off 28.14 SFUE demand on system
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SFUE METHODOLOGY CALCULATION - 3

OCCUPANCY EXAMPLE 3	Occupancy Load Factor (sq-ft/person)	Building Square Footage	Demand Factor (gall/people)	Total Demand	# SFUE's
Mercantile	30	20,377	7	4,755	13.58
Business	100	20377	25	5,094	14.56

- Two-story building, bottom floor commercial and top floor office.
- $\text{Total Demand} = (\text{Bldg Sq. Ft.} / \text{OLF}) \times \text{DF}$
- $\text{Total Demand} / (350 \text{ gallons/day}) = \# \text{ SFUEs}$
- Single building can have multiple uses summing a total of SFUEs
- Impact fee based off 28.14 SFUE demand on system

CONCLUSIONS

- Meter size is not an equitable capture of the impacts to the system based upon wastewater flow received in the collection system and water reclamation facility and the level of required treatment.
- Increased maintenance costs, increased treatment costs, and more stringent permit limits equate to a significant impact to the collection system and water reclamation facility (WRF).
- Occupancy Load Factor calculates water and sewer contribution based upon the use of the building, taking into account various uses.
- Standard factors allow for consistent usage across all types of structures, while allowing WMD discretion through the process.

NEXT STEPS

- February 9, 2021 worksession to present proposed costs for move to the SFUE calculations.
 - Subsequent Ordinance change, revision to Municipal Code – Title 18 and Appendix A (three BOMA readings).
 - Implementation July 1, 2021.
-
- Questions / Discussion



IMPACT FEES – PART 2 IMPACT FEE FINANCIAL PRESENTATION

MARCH 23, 2021

MICHELLE HATCHER, PE,
DIRECTOR

SARAH CHANDLER,
JACKSON THORNTON

WATER MANAGEMENT
DEPARTMENT

AGENDA

- Background
- Definitions & Types of Impact Fees & Process Overview
- Water: Equity Buy In & Incremental
- Sewer: Equity Buy-In & Incremental (total investment)
- Project Schedule
- Sewer: Incremental Cost (current work)
- Recommendations & Timeline Moving Forward

BACKGROUND

- Current impact fees determined based upon water meter size (both City customers and non-City residents).
- Meter size is not an equitable capture of the impacts to the system based upon wastewater flow received in the collection system and water reclamation facility and the level of required treatment.
- How do we **accurately** and **equitably** predict the impact to the system?
- Impact fees not increased in 13-years.

IMPACT FEE - 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

IMPACT FEES - TYPES

- Equity (Buy-In) Method – this approach This approach attempts to assess new customers a fee to approximate the equity position of current customers. (AWWA M-1, p199)
 - This approach was used on the water distribution and sewer collection system.
- Incremental Cost Method – assigns new development the incremental cost of system expansion needed to serve the new development. (AWWA M-1, p202)
 - This approach was used on the Water Treatment Plant expansion and the Water Reclamation Facility expansion (Claude Yates Dr).

PROCESS OVERVIEW FOR CALCULATING IMPACT FEES

- Develop Single Family Unit Equivalent
- Equity Buy-In – determine existing customer’s “equity” position in the distribution or collection system
- Equity Buy-In – calculate the average cost per SFUE on the existing distribution and collection system.
- Incremental Cost – determine projected capacity expansion related investments at the WTP and WRF.
- Incremental Cost – calculate the average cost per SFUE on the expanded treatment facilities for both water and wastewater.
- Both approaches are added together for water and again for sewer to arrive at the calculated Impact Fee for each system.



WATER



WATER – EQUITY BUY-IN (DEVELOPMENT OF SFUE)

EQUITY (BUY-IN) METHOD

12 Mos Ended
9/30/2019

Annual Residential Billings	199,330
Monthly Usage/Residential Customer (350 Gals/day)	10,646
Annual Usage/Residential Customer (350 Gals/day)	127,750
Residential Class Code Capacity (Gals)	2,122,033,958
Actual Non-Residential Class Usage (Gals)	445,005,381
Total Design Based Capacity	<u>2,567,039,339</u>
Single Family Unit Equivalent (SFUE) (Total Design Capacity/Annual Usage/Residential Customer)	20,094

WATER – DETERMINE CUSTOMERS INVESTMENT IN EXISTING DISTRIBUTION SYSTEM

EQUITY (BUY-IN) METHOD

	FY 2019
Distribution Plant Valuation	\$ 59,575,401
Less: Contributed Capital	\$ 19,918,384
Less: Distribution Bonds/Grants	\$ 2,639,704
Current Investment in Distribution Plant	<u>\$ 37,017,313</u>

WATER – CALCULATE AVERAGE INVESTMENT/SFUE IN EXISTING DISTRIBUTION SYSTEM

EQUITY (BUY-IN) METHOD

	FY 2019
Distribution Plant Valuation	\$ 59,575,401
Less: Contributed Capital	\$ 19,918,384
Less: Distribution Bonds/Grants	\$ 2,639,704
Current Investment in Distribution Plant	<u>\$ 37,017,313</u>
 Average Cost/SFUE (Dist. Plant Investment/SFUE)	 \$ 1,842

WATER – INCREMENTAL COST

INCREMENTAL COST METHOD

Capacity Investment	
Projected Treatment Capacity Investment	\$ 2,545,582
Projected Additional Capacity (500,000/day)	182,500,000
Annual Usage/Customer (Gals)	127,750
Percentage of Capacity	0.070000%
Average Cost/SFUE	\$ 1,782

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WATER – HYBRID RESULTS

HYBRID CONSOLIDATION

Equity (Buy-In) Method - Distribution	\$ 1,842
Incremental Cost - Treatment	\$ 1,782
Hybrid Approach - Cost per SFUE	\$ 3,624

WATER HYBRID CALCULATION (EQUITY BUY-IN + INCREMENTAL COST)

- Equity Buy-In Method = \$1,842
- Incremental Method = \$1,782
- **PROPOSED TOTAL = \$3,624 per SFUE**
- Current Impact Fee = \$2,089
- **Change = + \$1,535**



SEWER



SEWER – EQUITY BUY-IN (DEVELOPMENT OF SFUE)

EQUITY (BUY-IN) METHOD

12 Mos Ended 9/30/2019

Annual Residential Billings	283,476
Monthly Usage/Customer (350 Gals/day)	10,646
Annual Usage/Customer (350 Gals/day)	127,750
Residential Class Code Capacity (Gals)	3,017,838,250
Actual Non-Residential Class Usage	870,109,582
Total Design Based Capacity	3,887,947,832
Single Family Unit Equivalent (SFUE) (Total Design Capacity/Annual Usage/Residential Customer)	30,434

SEWER – DETERMINE CUSTOMERS IN EXISTING COLLECTION SYSTEM

EQUITY (BUY-IN) METHOD

	FY 2019
Collection Plant Valuation	\$ 156,078,134
Less: Contributed Capital	\$ 73,891,602
Less: Collection Bonds/Grants	\$ 9,413,088
Current Investment in Collection Plant	<u>\$ 72,773,444</u>

SEWER – CALCULATE AVERAGE INVESTMENT/SFUE IN EXISTING SYSTEM

Single Family Unit Equivalent (SFUE) 30,434
(Total Design Capacity/Annual Usage/Residential Customer)

	FY 2019
Collection Plant Valuation	\$ 156,078,134
Less: Contributed Capital	\$ 73,891,602
Less: Collection Bonds/Grants	\$ 9,413,088
Current Investment in Collection Plant	<u>\$ 72,773,444</u>

Average Cost/SFUE (Coll. Plant Investment/SFUE) \$ **2,391**

SEWER – INCREMENTAL COST (CLAUDE YATES FACILITY)

- Additional capacity = 4 MGD
- Cost = \$33 M plus interest costs @ 1.47% for 30 yrs

INCREMENTAL COST METHOD

Capacity - North Plant	
Projected Treatment Investment	\$ 40,829,262
Projected Additional Capacity (4 MGD)	1,460,000,000
Annual Usage/Customer (Gals)	127,750
Percentage of Capacity	0.008750%
Average Cost/SFUE	\$ 3,573

SEWER – INCREMENTAL COST (SE CLEAN WATER FACILITY)

- Cost include (8 MGD facility) – Total Investment:
 - Current Southeast Wastewater Capacity Evaluation PSA (engineering – Hazen, \$3.64M)
 - Pilot plant construction cost (construction – TBD, \$3.58M)
 - Anticipated design cost for SE Clean Water Facility (engineering – TBD, \$10M)
 - Anticipated construction inspection cost for SE Clean Water Facility (inspection – TBD, \$12M)
 - Anticipated construction cost for SE Clean Water Facility (construction – TBD, \$150M)
 - Anticipated interest cost for SE Clean Water Facility (bond – 3.5% for 30 years)

INCREMENTAL COST METHOD	
South Plant Capacity - 8 MGD	
Projected Treatment Investment	\$ 289,683,932
Projected Additional Capacity (8 MGD)	2,920,000,000
Annual Usage/Customer (Gals)	127,750
Percentage of Capacity	0.004375%
Average Cost/SFUE	\$ 12,674

SEWER – HYBRID RESULTS (TOTAL INVESTMENT)

- Equity (Buy-In) Method – Collection = \$2,391
- Capacity – Claude Yates Facility = \$3,573
- Southeast Clean Water Facility = \$12,674
- **IMPACT FEE (TOTAL INVESTMENT) = \$18,638 per SFUE**
- Current Impact Fee = \$3,544
- **Change = + \$15,094**
- *Impact fees related to current treatment project and future treatment project total \$16,247 (87% of total fee)

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SE WASTEWATER CAPACITY - TIMELINE

	Scheduled (Anticipated) Dates of Project	Duration	2021				2022				2023				2024				2025				2026				2027				2028				2029				2030			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
SE WW Capacity Evaluation	April 2020 - July 2023	3.25 years																																								
Pilot Plant Construction	July 1, 2021 - April 2022	10 months																																								
Pilot Plan Operation	May 2022 - February 2023	10 months																																								
SE CWF Design	August 2023 - February 2026	2.5 years																																								
Advertise For Bid	March 2026 - May 2026	3 months																																								
Award SE Construction	July 2026	2 months																																								
SE CWF Construction	July 2026 - July 2030	4 years																																								
SE CWF Construction Admin/Inspection	July 2026 - July 2030	4 years																																								

INCREMENTAL COST – SE WW CAPACITY

- Include cost for currently incurred cost & those that will be incurred in near future:
 - Current Southeast Wastewater Capacity Evaluation PSA (engineering – Hazen, \$3.64M)
 - Pilot plant construction cost (construction – TBD, \$3.58M)
 - Anticipated interest cost for existing work (bond – 3.5% @ 30 yrs)

INCREMENTAL COST METHOD

South Plant Capacity - 8 MGD

Existing Treatment Investment	\$ 11,671,417
Projected Additional Capacity (8 MGD)	2,920,000,000
Annual Usage/Customer (Gals)	127,750
Percentage of Capacity	0.004375%
Average Cost/SFUE	\$ 511

SEWER HYBRID CALCULATION (EQUITY BUY-IN + INCREMENTAL COST)

- Equity Buy-In Method = \$2,391
- Incremental Method = \$3,573
- Incremental Method = \$511
- **PROPOSED TOTAL = \$6,475 per SFUE**

- Current Impact Fee = \$3,544

- **Change = + \$2,391**

- *Impact fees related to current treatment project and future treatment project total \$4,084 (63% of total fee)

RECOMMENDATIONS

- WMD recommends increasing water impact fees to include projects already completed totaling \$3,624.
- WMD recommends increasing sewer impact fees to recapture project costs currently in progress totaling \$6,475.
 - Increasing impact fees now will allow for an incremental increase in cost to allow for full recapture of costs incurred due to development.
 - Increasing impact fees now will result in larger financial reserves, reducing the amount of additional debt needed for construction of new facility.
 - Reduce future impacts to existing rate-payers for debt service repayment.

TIMELINE MOVING FORWARD

- July 1, 2021 implementation of revised impact fees (water and sewer)
- Develop methodical approach for increasing sewer impact fees to recapture current project costs.
 - Concepts include:
 - Incremental cost increase each year (similar to rate structure).
 - Stair step increase as new costs are introduced.
 - Additional impact fee studies at strategic points.
- Discussion?



EXISTING IMPACT FEES – BACKGROUND

MARCH 8, 2022

MICHELLE HATCHER, PE,
DIRECTOR

BRIAN GOODWIN, PE,
ASSISTANT DIRECTOR

WATER MANAGEMENT
DEPARTMENT

AGENDA

- Background
- Why Should We Change?
- Existing Meter Size Methodology
- Proposed Methodology
- Advantages & Disadvantages & Comparison to Others
- Installation Fees
- Conclusions
- Next steps

BACKGROUND

- Impact fees are assessed when **new** connections are made to the distribution & collection system.
- Current impact fees determined based upon water meter size (both City customers and non-City residents).
 - Residential meter ($\frac{3}{4}$ "")
 - Water = \$2,089.00 + tap installation (meter only or complete installation)
 - Sewer = \$3,544.00 + tap installation (tap in place or not in place)
- **Impact fees (formerly access fee & system development fee) not increased in over 13-years.**

WHY SHOULD WE CHANGE?

- Meter size is not an equitable capture of the impacts to the system.
 - Demand based rather than meter based.
- Why should we increase impact fees?
 - Increased asset costs (increasing pipe, pumps, facilities, etc.) for additional capacity
 - Future development drives additional required conveyance and treatment capacity.
- Overall reduction in rate-payer contribution to fund growth related infrastructure.

EXISTING METER SIZE METHODOLOGY FOR IMPACT FEE DETERMINATION

	WATER	SEWER
Meter Size	Impact Fee	Impact Fee
3/4" and 5/8"	\$2,089.00	\$3,544.00
1"	\$8,358.00	\$14,175.00
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4"	\$83,580.00	\$141,750.00
6"	\$200,592.00	\$340,200.00
8"	\$250,740.00	\$425,250.00

- Current methodology by meter size incentivizes installation of an undersized meter rather than usage determined from actual occupancy groups.
 - Increasing stair stepped costs between meter sizes.
- Discourages the use of fire suppression systems (additional meter or larger meter).
- How do we appropriately plan for the impact to the system?

PROPOSED METHODOLOGY

- Proposed structure is based on Single Family Unit Equivalent (SFUE) = 350 gallons/day
 - One single family residential house = One SFUE
 - Multi-family units, commercial buildings, other uses = Multiple SFUEs
 - Structure:
 - Use developer provided plans to determine building occupancy
 - Assign demand factors for each building occupancy category (standardization)
 - Calculate the total planned demand and determine single family unit equivalents
 - Determine fee based on multiple of SFUE
 - Allows for QC from availability period to plan submittal stage to ensure fee is assessed equitably

METHODOLOGY GOALS

- Provide equitable assessment of fees based on projected demands by the developer as verified through City Staff.
- Tie fees to projected demands that drive capital investments and planning.
- Size meters based on demands and eliminate meter sizing decisions based on fees.
- Encourage the use of fire suppression systems.
- Reduce the rate-payer demand to fund growth related infrastructure.

CONCLUSIONS

- Meter size is not an equitable capture of the impacts to the system based upon conveyance and treatment demands.
- Increased asset costs for additional capacity equate to significant impacts to the systems (conveyance and treatment).
- Single Family Unit methodology will allow for a framework to equitably apply fees across all types of developments.

NEXT STEPS

- March 2022 – special worksession to present proposed costs for move to the SFUE calculations.
- April 12 Worksession will present the proposed fees and application to methodology.
- April 26 Worksession to present the Ordinance Change to Title 18, Waters & Sewers.
 - May 10 BOMA, first reading
 - May 24 BOMA, second reading
 - June 14 BOMA, third reading
- July 1, implementation



IMPACT FEES METER SIZE TO SFUE METHODOLOGY PRESENTATION

MARCH 22, 2022

MICHELLE HATCHER, PE,
DIRECTOR

BRIAN GOODWIN, PE,
ASSISTANT DIRECTOR

WATER MANAGEMENT
DEPARTMENT

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- **Impact fees (formerly access fee & system development fee) not increased in 13-years – Ordinance 2007-120**

WHY SHOULD WE CHANGE?

- Meter size is not an equitable capture of the impacts to the system.
 - Proposing demand based rather than meter based.
- Why should we increase impact fees?
 - Increased asset costs (increasing pipe, pumps, facilities, etc.) for additional capacity
 - Future development drives additional required conveyance and treatment capacity.
- Overall reduction in rate-payer contribution to fund growth related infrastructure.

EXISTING METER SIZE METHODOLOGY FOR IMPACT FEE DETERMINATION

	WATER	SEWER
Meter Size	Impact Fee	Impact Fee
3/4" and 5/8"	\$2,089.00	\$3,544.00
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- Current methodology by meter size incentivizes installation of an undersized meter rather than usage determined from actual occupancy groups.
 - Increasing stair stepped costs between meter sizes.
- Discourages the use of fire suppression systems (additional meter or larger meter).
- How do we appropriately plan for the impact to the system?

PROPOSED METHODOLOGY

- Proposed structure is based on Single Family Unit Equivalent (SFUE) = 350 gallons/day
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 - Structure:
 - Use developer provided plans to determine building occupancy
 - Assign demand factors for each building occupancy category (standardization)
 - Calculate the total planned demand and determine single family unit equivalents
 - Determine fee based on multiple of SFUE
 - Allows for QC from availability period to plan submittal stage to ensure fee is assessed equitably

METHODOLOGY GOALS

- Provide equitable assessment of fees based on projected demands by the developer as verified through City Staff.
- Tie fees to projected demands that drive capital investments and planning.
- Size meters based on demands and eliminate meter sizing decisions based on fees.
- Encourage the use of fire suppression systems.
- Reduce the rate-payer demand to fund growth related infrastructure.

METHODOLOGY DEVELOPMENT

- Review of adopted 2018 International Building Code to determine actual occupancy of buildings and who/what would be contributing to the collection system/water reclamation facility.
- Selected various structure uses within the City for comparison (school, office building, assisted living facility, gas station, restaurant, church, etc.)
- Use these data points to determine protocol for SFUE determination to eliminate meter size methodology.

METHODOLOGY DETAILS

- Using the building plans submitted during the Plan Review process, the square footage of usable spaces was determined.
- Those usable spaces correlated with the International Building Code (IBC) occupancy classes (could be multiple occupancy classes in single building).
 - Examples include storage, commercial, hazardous, mercantile, assembly, institutional, transient residential, etc.
- Occupancy classes then correlated with the Occupancy Load Factor (OLF = # of occupants/sq. ft).
- Demand factor pulled from Projected Flow Examples (current availability application) or other flow scenarios (DF = gallons/day/OL).
- Building sq. ft divided by OLF times the DF = Total Demand
- Total Demand / 350 gallons/day = # SFUEs

STANDARD VALUES

Occupancy Groups	Occupancy Load Factor (Occ load/sq-ft)	Demand Factor (gal/person)
A = Assembly	20	3.25
B = Business	100	25
B2 = Business Heavy	3	4.25
E = Educational	50	4
F = Factory	500	25
H = High Hazard	200	5
I = Institutional	100	7
M = Mercantile	30	7
R = Residential	1	350
R2 = Residential	1	100
S = Storage Group	300	25
U = Utility	300	25

- 2018 International Building Code (adopted by BOMA)
- Calibrated to define more appropriate values for certain structures based on COF billing data.

SFUE METHODOLOGY EXAMPLE CALCULATION

OCCUPANCY EXAMPLE 3	Occupancy Load Factor (sq-ft/person)	Building Square Footage	Demand Factor (gall/people)	Total Demand	# SFUE's
Mercantile	30	20,377	7	4,755	13.58
Business	100	20377	25	5,094	14.56

- Two-story building, bottom floor commercial and top floor office.
- $\text{Total Demand} = (\text{Bldg Sq. Ft.} / \text{OLF}) \times \text{DF}$
- $\text{Total Demand} / (350 \text{ gallons/day}) = \# \text{ SFUEs}$
- Single building can have multiple uses summing a total of SFUEs
- Impact fee based off 28.14 SFUE demand on system

CONCLUSIONS

- Meter size is not an equitable capture of the impacts to the system based upon conveyance and treatment demands.
- Increased asset costs for additional capacity equate to significant impacts to the systems (conveyance and treatment).
- Single Family Unit methodology will allow for a framework to equitably apply fees across all types of developments.
- Reduce overall rate-payer contribution to fund growth related infrastructure.

NEXT STEPS

- April 12 Worksession will present the proposed fees and application to methodology.
- April 26 Worksession to present the Ordinance Change to Title 18, Waters & Sewers.
 - May 10 BOMA, first reading
 - May 24 BOMA, second reading
 - June 14 BOMA, third & final reading
- July 1, implementation



IMPACT FEES – PART 2 IMPACT FEE FINANCIAL PRESENTATION

APRIL 12, 2022

MICHELLE HATCHER, PE,
DIRECTOR

BRIAN GOODWIN, PE,
ASSISTANT DIRECTOR

WATER MANAGEMENT
DEPARTMENT

AGENDA

- Background – why are we doing this?
- SFUE definition and diurnal conditions
- Definitions & types of impact fees
- Water: Equity Buy In & Incremental
- Sewer: Equity Buy-In & Incremental (total investment)
- Project Schedule
- Recommendations & Timeline Moving Forward

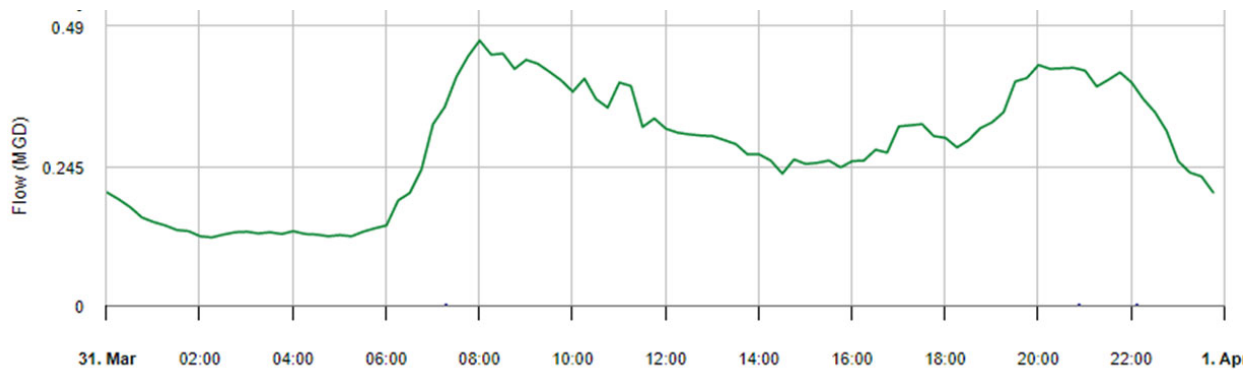
REFRESHER - WHY ARE WE DOING THIS?

- Meter size is not an equitable capture of the impacts to the system.
 - Proposing demand based rather than meter based.
- Why should we increase impact fees?
 - Increased asset costs (increasing pipe, pumps, facilities, etc.) for additional capacity
 - Future development drives additional required conveyance and treatment capacity.
- Overall reduction in rate-payer contribution to fund growth related infrastructure.

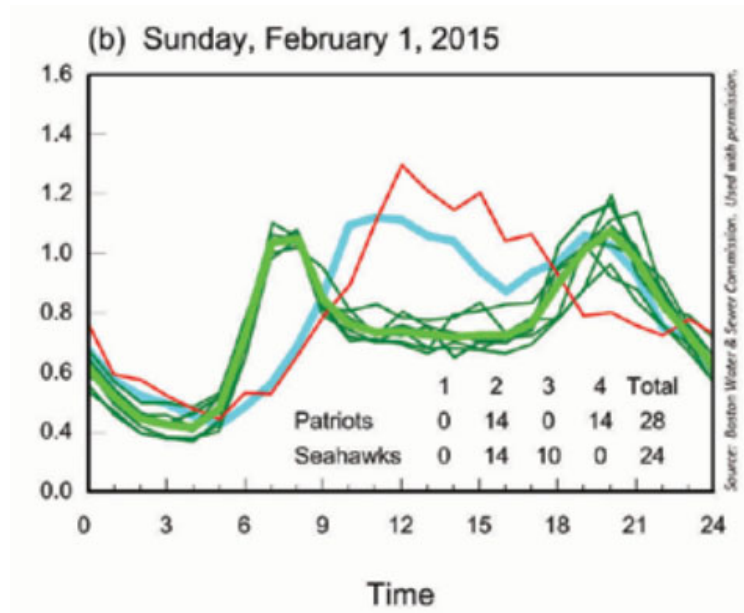
UNIT OF MEASURE (SFUE)

- Distribution and conveyance systems are sized based upon available capacity, not daily demand.
 - Diurnal demands peak in morning and evening based upon residential usage.
 - Water consumption (i.e. utility bills) are based off total consumption throughout the month, does not account for the peaking times when demand (water & sewer) is the highest.
- Example: TN Titans stadium (two football games/month), at half time the sewer system needs to accommodate the instantaneous demands of the system, not the overall sewer utility bill for the month.
 - Using this example, the Single-Family Unit Equivalent metric was developed to account for those peaked diurnal demands, not the average monthly consumption from a single house.

WHAT IS DIURNAL FLOW?



March 31 – April 1, 2022 – Westhaven flow meter



Super Bowl XLIX
New England Patriots vs. Seattle Seahawks
Glendale, Arizona

EXAMPLE COMPARISON (ACTUAL SCENARIO)

	BLDG A	BLDG B
Square footage of usable space	40,377 sq. ft	219,587 sq. ft
Typical water consumption & sewer demand (from utility bill)	101,725 gallons/month	372,333 gallons/month
Installed meter	3 inch	3 inch
Paid impact fee	\$111,825	\$111,825

IMPACT FEE - 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

IMPACT FEES - TYPES

- Equity (Buy-In) Method – assesses new customers a fee to approximate the equity position of current customers. (AWWA M-1, 7th Edition, p199)
 - This approach was used on the water distribution and sewer collection system.
- Incremental Cost Method – assigns new development the incremental cost of system expansion needed to serve the new development. (AWWA M-1, 7th Edition, p202)
 - This approach was used on the Water Treatment Plant expansion and the Water Reclamation Facility expansion (Claude Yates Dr).
- Used actual Franklin customer accounts to determine number of SFUEs, current expansion costs, and assumed future expansion costs.



WATER



WATER – HYBRID RESULTS

HYBRID CONSOLIDATION

Equity (Buy-In) Method - Distribution	\$ 1,842
Incremental Cost - Treatment	\$ 1,782
Hybrid Approach - Cost per SFUE	\$ 3,624

WATER HYBRID CALCULATION (EQUITY BUY-IN + INCREMENTAL COST)

- Equity Buy-In Method = \$1,842
- Incremental Method = \$1,782
- **PROPOSED TOTAL = \$3,624 per SFUE**
- Current Impact Fee = \$2,089
- **Change = + \$1,535**

11



SEWER



SEWER – INCREMENTAL COST (CLAUDE YATES FACILITY)

- Additional capacity = 4 MGD
- Cost = \$33 M plus interest costs @ 1.47% for 30 yrs

INCREMENTAL COST METHOD

Capacity - North Plant	
Projected Treatment Investment	\$ 40,829,262
Projected Additional Capacity (4 MGD)	1,460,000,000
Annual Usage/Customer (Gals)	127,750
Percentage of Capacity	0.008750%
Average Cost/SFUE	\$ 3,573

SEWER – INCREMENTAL COST (SE CLEAN WATER FACILITY)

- Cost include (8 MGD facility) – Total Investment:
 - Current Southeast Wastewater Capacity Evaluation PSA (engineering – Hazen, \$4.3M)
 - Pilot plant construction cost (construction – TBD, \$1.65M)
 - Anticipated design cost for SE Clean Water Facility (engineering – TBD, \$10M)
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 - Anticipated construction cost for SE Clean Water Facility (construction – TBD, \$150M)
 - Anticipated interest cost for SE Clean Water Facility (bond – 3.5% for 30 years)

INCREMENTAL COST METHOD	
South Plant Capacity - 8 MGD	
Projected Treatment Investment	\$286,795,281
Projected Additional Capacity (8 MGD)	2,920,000,000
Annual Usage/Customer (Gals)	127,750
Percentage of Capacity	0.004375%
Average Cost / SFUE	\$10,755

SEWER – HYBRID RESULTS (TOTAL INVESTMENT)

- Equity (Buy-In) Method – Collection = \$2,391
 - Incremental Method – Claude Yates Facility = \$3,573
 - Incremental Method - Southeast Clean Water Facility = \$10,755
 - **IMPACT FEE (TOTAL INVESTMENT) = \$16,719 per SFUE**
- Number reduced from 2020 presentation due to refined costs used for model
- Current Impact Fee = \$3,544
 - **Change = + \$13,172**
 - *Impact fees related to current treatment project and future treatment project total \$16,247 (~86% of total fee)

SE WASTEWATER CAPACITY - TIMELINE

Overall Timeline	Schedule (Anticipated) Dates of Project Milestones	Duration	2021				2022				2023				2024				2025				2026				2030			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
SE WW Capacity Study	April 2020 - July 2023	3.25 years																												
Pilot Construction	July 2021 - July 2022	12 months																												
Pilot Operation	August 2022 - April 2023	9 months																												
SE CWF Design	August 2023 - February 2026	2.5 years																												
Advertise & Award SE Construction Bid	March 2026 - July 2026	3 months																												
SE CWF Construction	July 2026 - July 2030	4 years																												
CWF Start-up/Testing	August 2030	1 month																												

RECOMMENDATIONS

- WMD recommends increasing water impact fees to include projects already completed totaling \$3,624.
- WMD recommends ultimately increasing sewer impact fees to recapture project costs totaling currently in progress totaling \$16,719.
 - Two total increases:
 - Effective immediately July 1, 2022 = \$8,359.50
 - Effective July 1, 2023 = \$16,719

WHY THIS CHANGE IS NEEDED

- Provide equitable assessment of fees based on projected demands by the developer as verified through City Staff.
- Tie fees to projected demands that drive capital investments and planning.
- Size meters based on demands and eliminate meter sizing decisions based on fees.
- Encourage the use of fire suppression systems.
- Reduce the rate-payer demand to fund growth related infrastructure.
 - Action now will prevent future impact to rate-payers for the SE CWP.

NEXT STEPS

- April 26 Worksession to review and answer any additional questions
- May 10th BOMA, present the Ordinance Change to Title 18, Waters & Sewers and Appendix A, Comprehensive Fees and Penalties.
- May 24th BOMA, first reading
- June 14th, BOMA, second reading
- June 28th BOMA, third & final reading
- July 1, implementation

- Questions?



IMPACT FEES PRESENTATION

OCTOBER 11, 2022

MICHELLE HATCHER, PE,
DIRECTOR

BRIAN GOODWIN, PE,
ASSISTANT DIRECTOR

WATER MANAGEMENT
DEPARTMENT

INEQUITY IN IMPACT FEES FROM BUILDING TYPES

Building	Type	Square Footage	Meter Size	Impact Fees Paid	Impact Fee Paid w/New Methodology
A	Business & Mercantile	X	4"	\$161,253	\$1,658,565
B	Business	2X	4"	\$161,253	\$3,582,643
C	Business & Mercantile	Y	3"	\$111,825	\$486,253
D	Business	5Y	3"	\$111,825	\$2,710,331

2

SFUE METHODOLOGY EXAMPLE CALCULATION I

- A 300-unit apartment complex is developing within the City consisting of 100 one-bedroom homes, 100 two-bedroom homes, & 100 three-bedroom homes

Occupancy	Number of Units	Demand Factor (gallon/unit)
R2B1	100	250
R2B2	100	300
R2B3	100	350

$$R2B1: TD = \left[100 \text{ units} \right] \left[\frac{250 \text{ gallons}}{\text{Unit-day}} \right] = \underline{\underline{25,000 \text{ gallons}}}$$

$$R2B2: TD = \left[100 \text{ units} \right] \left[\frac{300 \text{ gallons}}{\text{Unit-day}} \right] = \underline{\underline{30,000 \text{ gallons}}}$$

$$R2B3: TD = \left[100 \text{ units} \right] \left[\frac{350 \text{ gallons}}{\text{Unit-day}} \right] = \underline{\underline{35,000 \text{ gallons}}}$$

SFUE METHODOLOGY EXAMPLE CALC 2 (CONTD.)

- Once we determine the total demand for each occupancy, sum together for total demand for complex:

$$\text{Total Demand} = R2B1 + R2B2 + R2B3$$

$$\text{Total Demand} = 25,000 + 30,000 + 35,000$$

$$\text{Total Demand} = 90,000 \frac{\text{gallons}}{\text{day}}$$

- Then determine the SFUE multiple: $\text{SFUE} = \frac{90,000}{350} = 257.1 \text{ SFUEs}$

SFUE METHODOLOGY EXAMPLE CALC 2 (CONTD.)

- Then, determine the total fees.
 - WATER: $257.1 \text{ SFUEs} \times \$3,624 = \$931,730$ impact fee
 - \$1,553 / resident (assuming 600-resident complex)
 - SEWER: $257.1 \text{ SFUEs} \times \$16,719 = \$4,298,455$ sewer impact fee
 - \$7,164 / resident (assuming 600-resident complex)

PROPERTY VALUES

- Property values in Franklin have consistently continued to rise in past years:
 - Median home price averaging around \$900k
 - Water impact fee = 0.4% of home price
 - Sewer impact fee = 1.9% of home price

RATE IMPACT

- Preliminary calculations show a rate impact (in 2022 dollars) of approximately \$35 / average residential user per month
- Totaling an additional approximately \$420 / year to the average sewer customer

AFFORDABLE HOUSING

- Policy change incorporated into Title 18
- Guidance
 - Housing & Urban Development guidance
 - Other Tennessee municipalities examples
 - COF Building & Neighborhood Services Affordable Housing standards
- Is this offset by another fund?

RECOMMENDATIONS

- WMD recommends increasing water impact fees to include projects already completed totaling \$3,624.
- WMD recommends ultimately increasing sewer impact fees to recapture project costs totaling currently in progress totaling \$16,719.

NEXT STEPS

- October 25 Worksession to present Ordinance for review (red-lined)
- November 2, 2022 BOMA – first reading
- December 13, BOMA - second reading and public hearing
- January 10, 2023 - third & final reading
- Implementation in CY 2023 based on guidance from the BOMA on timing and/or phasing of proposed fees.
- Questions?



IMPACT FEES

NOVEMBER 8, 2022

MICHELLE HATCHER, PE,
DIRECTOR

BRIAN GOODWIN, PE,
ASSISTANT DIRECTOR

WATER MANAGEMENT
DEPARTMENT

REFRESHER - WHY ARE WE DOING THIS?

- Meter size is not an equitable capture of the impacts to the system.
 - Occupancy factor promotes demand-based fee rather than undersized meter-based fee.
- Why should we increase impact fees?
 - Increased asset costs (increasing pipe, pumps, facilities, etc.) for additional capacity
 - Future development drives additional required conveyance and treatment capacity.
- Overall, the purpose of impact fees is to appropriately assign growth-related infrastructure costs to new development and to reduce the cost burden on rate-payers to fund growth-related infrastructure.

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 - This approach was used on the Water Treatment Plant expansion and the Water Reclamation Facility expansion (Claude Yates Dr), and the potential South CWF.
- Used actual Franklin customer accounts to determine number of SFUEs, current expansion costs, and assumed future expansion costs.

UNIT OF MEASURE (SFUE)

- Distribution and conveyance systems are sized based upon available capacity, not daily demand.
 - Diurnal demands peak in morning and evening based upon typical residential usage.
 - Water consumption (i.e. utility bills) are based off total consumption throughout the month, does not account for the peaking times when demand (water & sewer) is the highest.
- WMD currently uses SFUE methodology to determine existing capacity & necessary offsite improvements for development.

QUESTIONS

- Clarify the nature of the identified use classifications and their associated demand impact that is utilized in assessing the relative impact of future development.
- Development of the SFUE Calculation Handbook will outline these “assumptions” and provides example calculations for correct fee determination.
- Methodology has been developed from International Building Code, TDEC Design Basis for Wastewater Flow & Loading, and Nashville/Davidson County Metropolitan Water Services Commercial Permit Handbook.
- Fees assessed at Building Permit issuance to capture most descriptive occupancy loading of structure.



WATER



WATER – HYBRID RESULTS

HYBRID CONSOLIDATION

Equity (Buy-In) Method - Distribution	\$ 1,842
Incremental Cost - Treatment	\$ 1,782
Hybrid Approach - Cost per SFUE	\$ 3,624

WATER HYBRID CALCULATION (EQUITY BUY-IN + INCREMENTAL COST)

- Equity Buy-In Method = \$1,842
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- **PROPOSED TOTAL = \$3,624 per SFUE – RECOMMEND FULL IMPLEMENTATION**
- Current Impact Fee = \$2,089
- **Change = + \$1,535**



SEWER



SEWER – INCREMENTAL COST (CLAUDE YATES FACILITY)

- Additional capacity = 4 MGD
- Cost = \$33 M plus interest costs @ 1.47% for 30 yrs

INCREMENTAL COST METHOD

Capacity - North Plant	
Projected Treatment Investment	\$ 40,829,262
Projected Additional Capacity (4 MGD)	1,460,000,000
Annual Usage/Customer (Gals)	127,750
Percentage of Capacity	0.008750%
Average Cost/SFUE	\$ 3,573

11

SEWER – INCREMENTAL COST (SE CLEAN WATER FACILITY)

Cost include (8 MGD facility) – Total Investment:

- Current Southeast Wastewater Capacity Evaluation PSA (engineering – Hazen, \$4.3M)
- Pilot plant construction cost (construction – Haren, \$1.65M)
- Preliminary Engineering Report/Permit Development (engineering – Hazen, \$3M)
- Anticipated Design Cost (engineering – TBD, \$7M)
- Anticipated construction inspection cost (inspection – TBD, \$12M)
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- Current Impact Fee = \$3,544
- **Change = + \$13,172**
- *Impact fees related to current treatment project and future treatment project total \$16,247 (~86% of total fee)

SEWER IMPACT FEE

- Recommend 4-year phased approach for full implementation
 - March 2023 = Current Impact Fee + 25% of Proposed Impact Fee = **\$6,837**
 - January 2024 = Current Impact Fee + 50% of Proposed Impact Fee = **\$10,130**
 - January 2025 = Current Impact Fee + 75% of Proposed Impact Fee = **\$13,423**
 - January 2026 = Current Impact Fee + 100% of Proposed Impact Fee = **\$16,719**

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DISCUSSIONS

- Water Management presented to the Design Developers group in April 2022 – outlining this concept and methodology shift.
- Presenting to Development Services Advisory Commission tomorrow information presented this evening.
- Water Management discussing with Building & Neighborhood Services Dept to develop new business practices for implementation.

RECOMMENDATIONS

- WMD recommends increasing water impact fees to include projects already completed totaling \$3,624.
- WMD recommends 4-year phased approach for increasing impact fees 25% each year, totaling the full amount in 2026.

NEXT STEPS

- November 22, 2022 Work Session to present Ordinance change to Title 18 & Appendix A and the SFUE Calculation Handbook
- December 13, 2022 – first BOMA vote for Ordinance change
- January 10, 2023 – second BOMA vote on Ordinance change
- January 24, 2023 – third BOMA vote on Ordinance change
- March 1, 2023 – implementation

- Questions?



IMPACT FEES

NOVEMBER 28, 2022

MICHELLE HATCHER, PE,
DIRECTOR

BRIAN GOODWIN, PE,
ASSISTANT DIRECTOR

WATER MANAGEMENT
DEPARTMENT

REFRESHER - WHY ARE WE DOING THIS?

- Meter size is not an equitable capture of the impacts to the system.
 - Occupancy factor promotes demand-based fee rather than undersized meter-based fee.
- Why should we increase impact fees?
 - Increased asset costs (increasing pipe, pumps, facilities, etc.) for additional capacity
 - Including current treatment needs & future capacity needs (upgrade WTP, current WRF upgrade/expansion, and proposed South CWP)
 - Future development drives additional required conveyance and treatment capacity.
- Overall, the purpose of impact fees is to appropriately assign growth-related infrastructure costs to new development and to reduce the cost burden on rate-payers to fund growth-related infrastructure.

BACKGROUND

- Current impact fees determined based upon water meter size (both City customers and non-City residents).
- Meter size is not an equitable capture of the impacts to the system based upon wastewater flow received in the collection system and water reclamation facility and the level of required treatment.
- How do we **accurately** and **equitably** predict the impact to the system?
- Impact fees not increased in at least 15-years.

EXISTING METER SIZE METHODOLOGY FOR IMPACT FEE DETERMINATION

	WATER	SEWER
Meter Size	Impact Fee	Impact Fee
3/4" and 5/8"	\$2,089.00	\$3,544.00
1"	\$8,358.00	\$14,175.00
1 1/2"	\$20,009.00	\$34,020.00
2"	\$26,745.00	\$45,360.00
3"	\$58,506.00	\$99,225.00
4"	\$83,580.00	\$141,750.00
6"	\$200,592.00	\$340,200.00
8"	\$250,740.00	\$425,250.00

- Current methodology by meter size incentivizes installation of an undersized meter rather than usage determined from actual occupancy groups.
 - Increasing stair stepped costs between meter sizes.
- Discourages the use of fire suppression systems (additional meter or larger meter).
- How do we appropriately plan for the impact to the system?

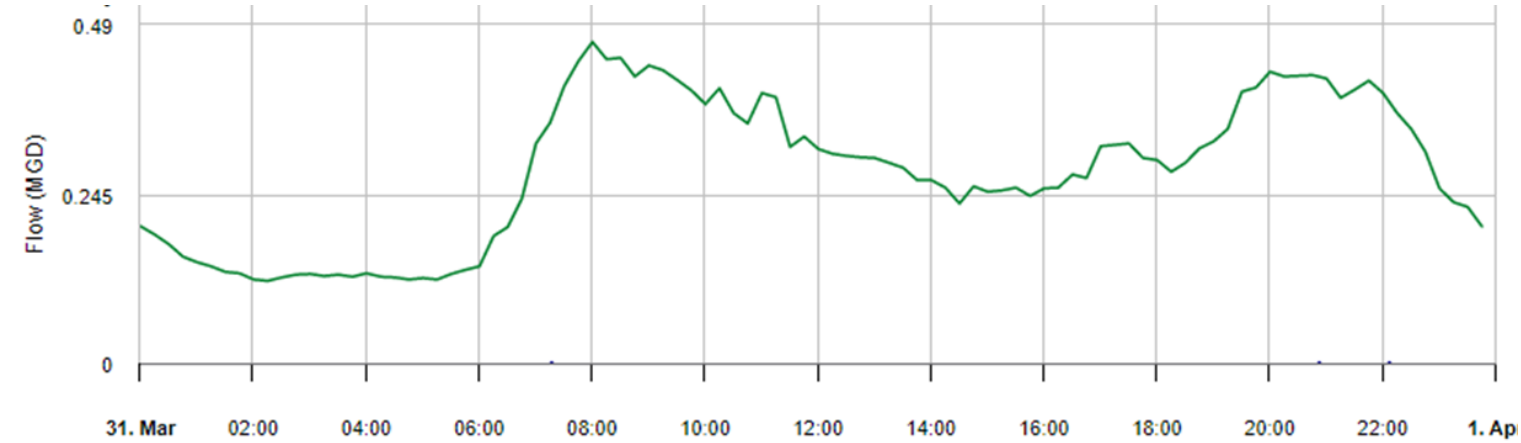
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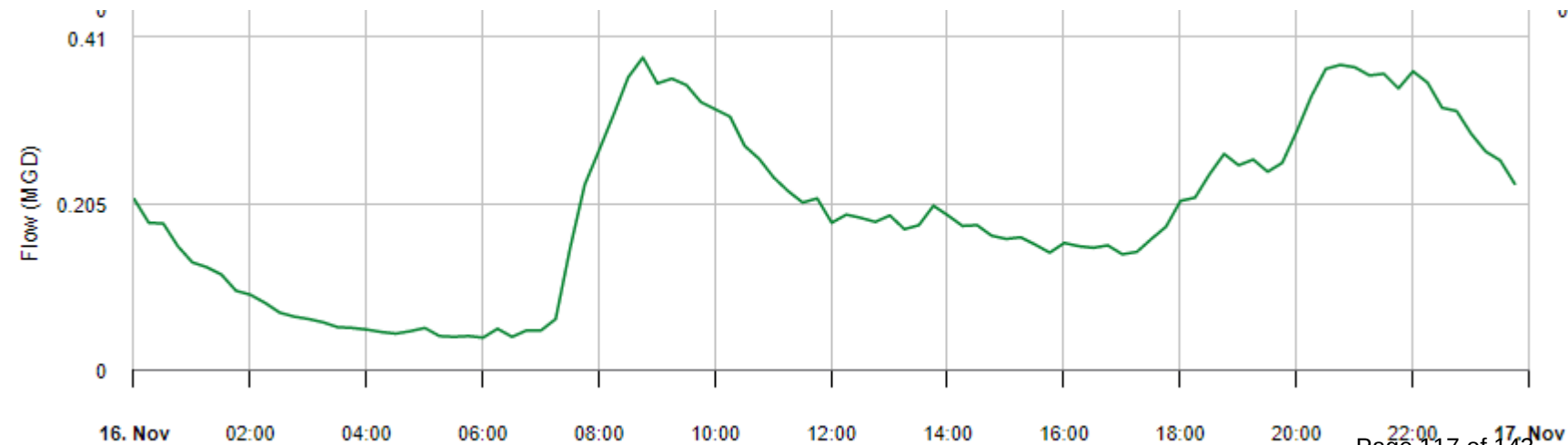
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 - Using this example, the Single-Family Unit Equivalent metric was developed to account for those peaked diurnal demands and is not a reliable factor for calculating average monthly usage.

WHAT IS DIURNAL FLOW?



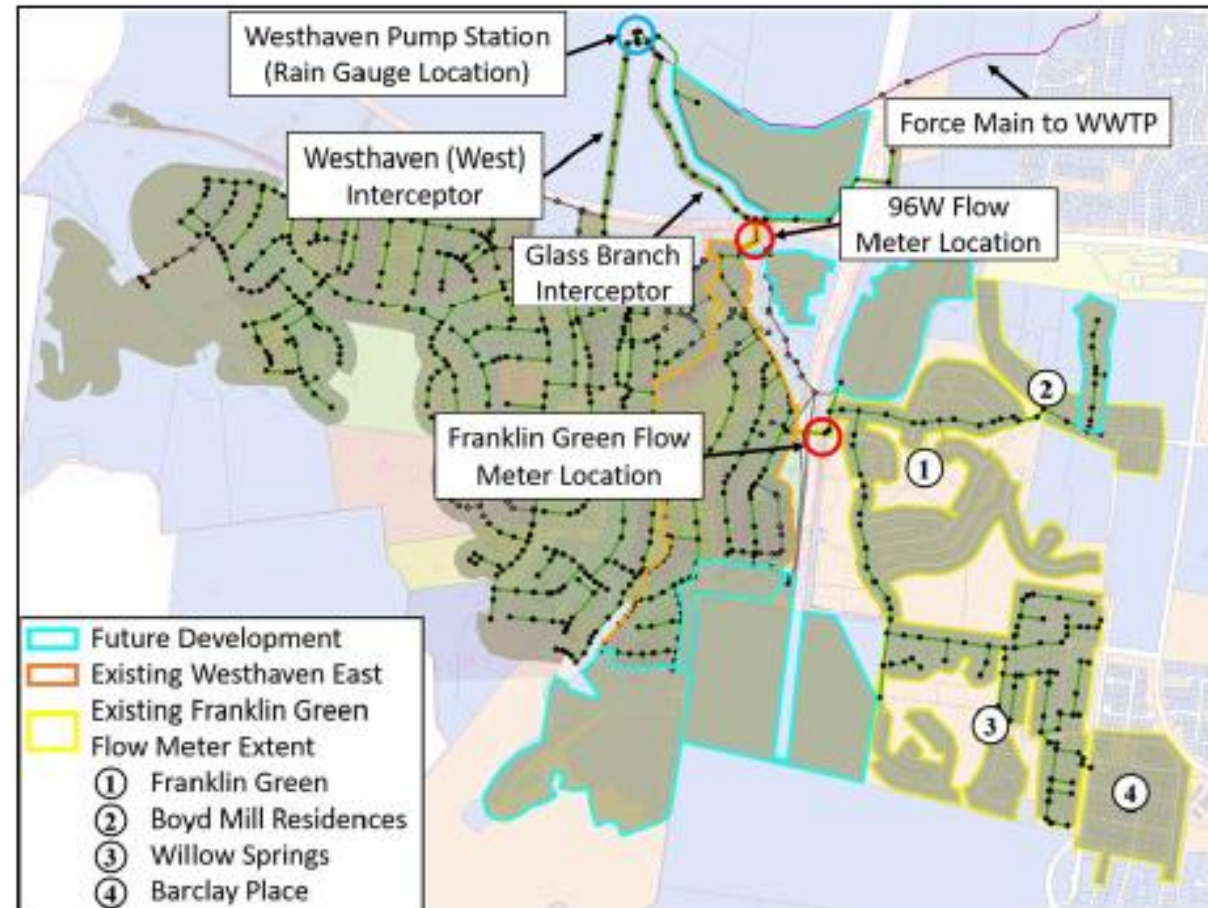
March 31 – April 1, 2022 –
Westhaven flow meter

November 16 –
November 1, 2022 –
Ladd Park flow meter



SINGLE FAMILY UNIT EQUIVALENT APPLICABILITY IN FRANKLIN

- Westhaven Capacity Evaluation With Proposed Future Development (August 2020)
- Development study using COF flow monitors
 - Westhaven = 131.5 to 437 gpd/SFUE
 - Franklin Green = 220 gpd/SFU



IMPACT FEE - DEFINITION

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SEWER

SEWER – EQUITY BUY-IN

EQUITY (BUY-IN) METHOD

	FY 2019
Collection Plant Valuation	\$ 156,078,134
Less: Contributed Capital	\$ 73,891,602
Less: Collection Bonds/Grants	\$ 9,413,088
Current Investment in Collection Plant	<u>\$ 72,773,444</u>
 Average Cost/SFUE (Coll. Plant Investment/SFUE)	 \$ 2,391

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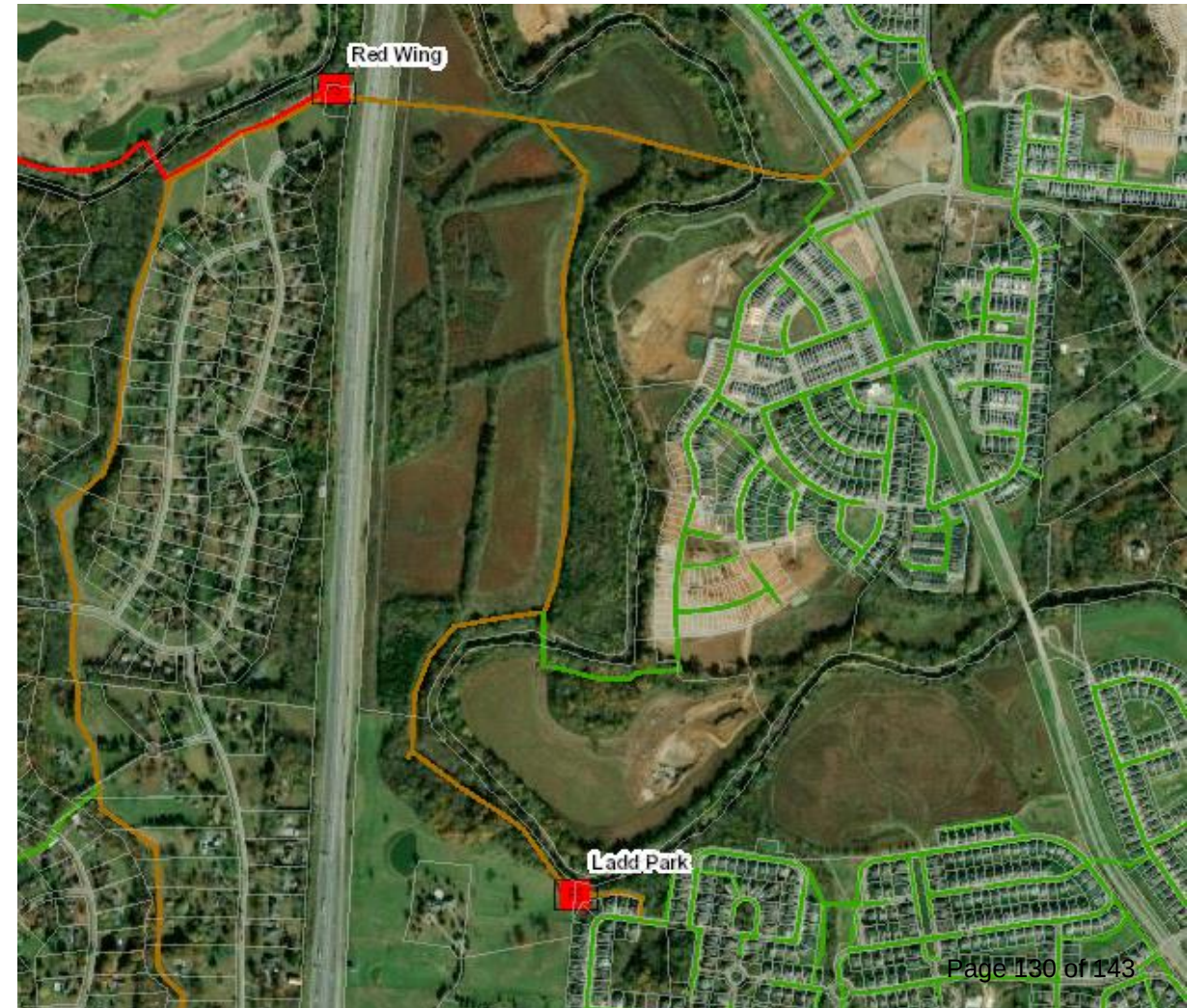
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- **Change = + \$13,172**

SEWER IMPACT FEE

- Recommend 4-year phased approach for full implementation
 - March 2023 = Current Impact Fee + 25% of Proposed Impact Fee = **\$6,837**
 - January 2024 = Current Impact Fee + 50% of Proposed Impact Fee = **\$10,130**
 - January 2025 = Current Impact Fee + 75% of Proposed Impact Fee = **\$13,423**
 - January 2026 = Current Impact Fee + 100% of Proposed Impact Fee = **\$16,719**

CURRENT WASTEWATER FLOWS TO REDWING PUMP STATION

- Existing (average from flow meters on interceptors)
 - 0.29 MGD Ascot (2.73 MGD peak)
 - 0.20 MGD Simmons Ridge (2.03 MGD peak)
 - 0.15 MGD Ladd Park (4.01 MGD peak)
 - Total
 - Average = $0.64 \text{ MGD} \times \text{peaking factor} = 1.28 \text{ MGD}$
 - Peak = 4.77 MGD
- Availabilities already approved for area
 - 5,512 SFUEs = 1.93 MGD (average)



DISCUSSIONS

- Worksession presentations: January 26, 2021; March 23, 2021; March 8, 2022; March 22, 2022; April 12, 2022; October 11, 2022; November 8, 2022
- Design Developers Group (April 2022) outlining this concept and methodology shift.
- Development Services Advisory Commission (November 2022) phased approach for full implementation of fees.
- Building & Neighborhood Services Dept to develop new business practices for implementation.

RATE IMPACT

- If placed entirely on ratepayers, preliminary calculations show a rate impact (in 2022 dollars) of approximately \$25 - \$30 per customer per month on customer charge (the fix component of rates).
- Totaling approximately \$300 - \$360 per year per sanitary sewer customer.

HISTORICAL IMPACTS TO OUR COMMUNITY

- School Impact Fee (2017) - \$3,374 to \$12,237 (outside FSSD)
- Road Impact Fees – updated every 5 years (varies by usage)
 - Arterial Impact Fee
 - Ordinance 2007 – 104 = \$2,191 (single family)
 - Ordinance 2011-07 = \$4,227 (single family) - phased in over 3 years
 - Ordinance 2014-09 = \$4,911 (single family) to \$17,442 (fast food restaurant)
 - Collector Impact Fee (Ordinance 2017-02 new fee) = \$3,340 (single family) to \$11,862 (fast food restaurant)
- Thompson Station – July 1, 2020 (EDU = 250 gpd)
 - Wastewater Impact Fee = \$9,757.08 / EDU
 - Effluent Disposal Fee = \$5,650.05 / EDU
- Typical septic tank installation = \$25-35,000 per household (Williamson County)

DEVELOPMENT ACTIVITY (2016 – PRESENT)

Year	Number of Permits	Construction Valuation
2016	8,993	\$774,014,558
2017	7,523	\$818,117,233
2018	6,514	\$744,676,495
2019	6,198	\$538,001,665
2020	6,272	\$479,603,779
2021	5,810	\$556,854,988
2022 thru Oct	4,898	\$746,319,323

QUESTIONS

- Clarify the nature of the identified use classifications and their associated demand impact that is utilized in assessing the relative impact of future development.
- Development of the SFUE Calculation Handbook will outline these “assumptions” and provides example calculations for correct fee determination.
- Methodology has been developed from International Building Code, TDEC Design Basis for Wastewater Flow & Loading, and Nashville/Davidson County Metropolitan Water Services Commercial Permit Handbook.
- Fees assessed at Building Permit issuance to capture most descriptive occupancy loading of structure.
- Other funding mechanisms that should be considered.

RECOMMENDATIONS

- City Administrator and WMD recommends increasing water impact fees to include projects already completed totaling \$3,624.
- City Administrator and WMD recommends 4-year phased approach for increasing impact fees 25% each year, totaling the full amount in 2026.

SEWER IMPACT FEE

- Recommend 4-year phased approach for full implementation
 - March 2023 = Current Impact Fee + 25% of Proposed Impact Fee = **\$6,837**
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AFFORDABLE HOUSING

- Title 21 of Municipal Code provides initiatives to encourage production and maintenance of affordable and workforce housing.
- Includes incentives to address cost of impact fees including water and wastewater, road impact, and parkland.
- Staff is currently reviewing sections of Title 21, and there may be changes proposed at a later date.

Impact Fees – Frequently Asked Questions

1. What costs are the City of Franklin trying to solve with these new fees?

The City developed the Integrated Water Resources Plan (Plan) in 2012 that analyzed water resources within the City and how they are used for our growing community. From this Plan, several projects were outlined as priorities for our growing community, including:

- Upgrade and expansion of the Water Treatment Facility that provided increased levels of treatment and higher water quality for our customers. This project was completed in 2018.
- Upgrade and expansion of the Water Reclamation Facility on Claude Yates that increased capacity from 12 million gallon per day (MGD) to 16 MGD. This project also provides for equipment updates and process enhancement. The implementation of a sustainable solids processing component is also included in this project. While aspects of this project are functioning now, this project will be fully complete in 2023.
- The construction of a southern wastewater treatment facility is designed to accommodate growth and development. Growth in the southern portion of Franklin in particular show new capacity that will be needed to accommodate the new development, both commercial and residential. The Plan identified additional treatment capacity in this area.

The costs associated with the Water Treatment Facility and the Claude Yates Water Reclamation Facility are based on actual costs of the projects associated with system enhancements and new capacity.

Costs for a new 8 MGD facility include the following:

- Current Southeast Wastewater Capacity Evaluation PSA (engineering – Hazen, \$4.3M) - actual
- Pilot plant construction cost (construction – Haren, \$1.65M) - actual
- Preliminary Engineering Report/Permit Development (engineering – Hazen, \$3M) - actual
- Anticipated Design Cost (engineering – TBD, \$7M)
- Anticipated construction inspection cost (inspection – TBD, \$12M)
- Anticipated construction cost (construction – TBD, \$150M)
- Anticipated interest cost for SE Clean Water Facility (bond – currently estimated at 3.5% for 30 years)

2. Can a summary of stakeholder input be provided?

Presentations have been given to the Board of Mayor and Aldermen on the following public meeting dates: January 26, 2021; March 23, 2021; March 8, 2022; March 22, 2022; April 12, 2022; October 11, 2022; November 8, 2022.

Presentations have also been given to the Design Professions/Developers Group (April 2022) outlining the concept and methodology shift and the Development Services Advisory Commission (November 2022) phased approach for full implementation of fees.

3. What consultants are working on the master planning of these expenses to qualify costs and needs?

The design consultant for the evaluation of additional southeast capacity is Hazen & Sawyer. Hazen & Sawyer was selected through a qualifications-based selection process in 2019.

4. What consultants are working on the impact fee process and application?

The Water Management Department used Jackson Thornton to complete the evaluation on the City's impact fees in 2019 based upon costs provided by the Department. The American Water Works Association, M1 Manual, Principles of Water Rates, Fees, and Charges was used for the basis of the study. The model is based off an initial treatment capacity of 8 MGD, and while the exact treatment cost is still being vetted by our engineering consultant, the proposed facility size was recommended by the Integrated Water Resources Plan based upon the growing size and needs of the City.

5. Can any of the studies that have been done to estimate the need for these updates be shared? What are the costs?

The City has created a consolidated page on its website that includes presentations to the BOMA, the Integrated Water Resources Plan (IWRP), and this FAQ. The City will continue to add resources to this site as they are developed. [Impact Fee Web Page](#)

6. Are the costs being proposed only for “new development” or are there existing infrastructure improvements that are necessary and are being incorporated into the model?

These costs are for new development only and include those new connections to the distribution or collection system. If redevelopment occurs and the demand increases, the developer will only be required for the delta in increase of demand and not the entire fee.

7. Where did the System Development Fees and Effluent Disposal Fees that have been historically charged by the COF go? The WWTP upgrades and new construction are not new projects and have been budgeted for years.

The existing Water Reclamation Facility (WRF) upgrades and expansion have been planned for years and collected impact fees have been designated for this project. For the current upgrade and expansion of the WRF, only 33% of the costs are being attributed to growth and the rest is assumed to be ratepayer funded capital investment projects. The 33% capacity increased is calculated from the increase from 12 MGD to 16 MGD capacity.

The effluent disposal fee that is charged for new sewer connections goes toward the upgrade of the reclaimed water system. This system diverts effluent from the Harpeth River and offsets the potable water demand for irrigation by customers. The City provides this service as a mutual benefit for customers and the City by providing irrigation water at a cheaper rate than potable water while also diverting the discharge (and also nutrients) from the river.

8. What alternative funding has been considered (i.e. federal or state grants, loans, etc.)?

A State Revolving Fund loan will be pursued as part of this project, and may include principal forgiveness, however, it is a loan at a lower interest rate than typically seen in open market conditions. The City is currently utilizing SRF loans for payment of the current WRF upgrade & expansion. Staff will continue to explore grant monies and other opportunities for funding as available.

9. What projects will be grandfathered? Is that based on approved plans, approved development plans, approved site plans, etc.?

The approach being recommended is a phased-in approach over a four-year period, increasing the fee by 25% each year until the full fee is reached. This phased-in approach will allow for those projects currently ready to begin the building process the benefit of receiving the smaller increment of the proposed fee.

10. Would the COF consider the creation of a MUD, PID, or a TIF district as alternatives to fund infrastructure?

Below is the definition of a TIF from the Comptroller's website.

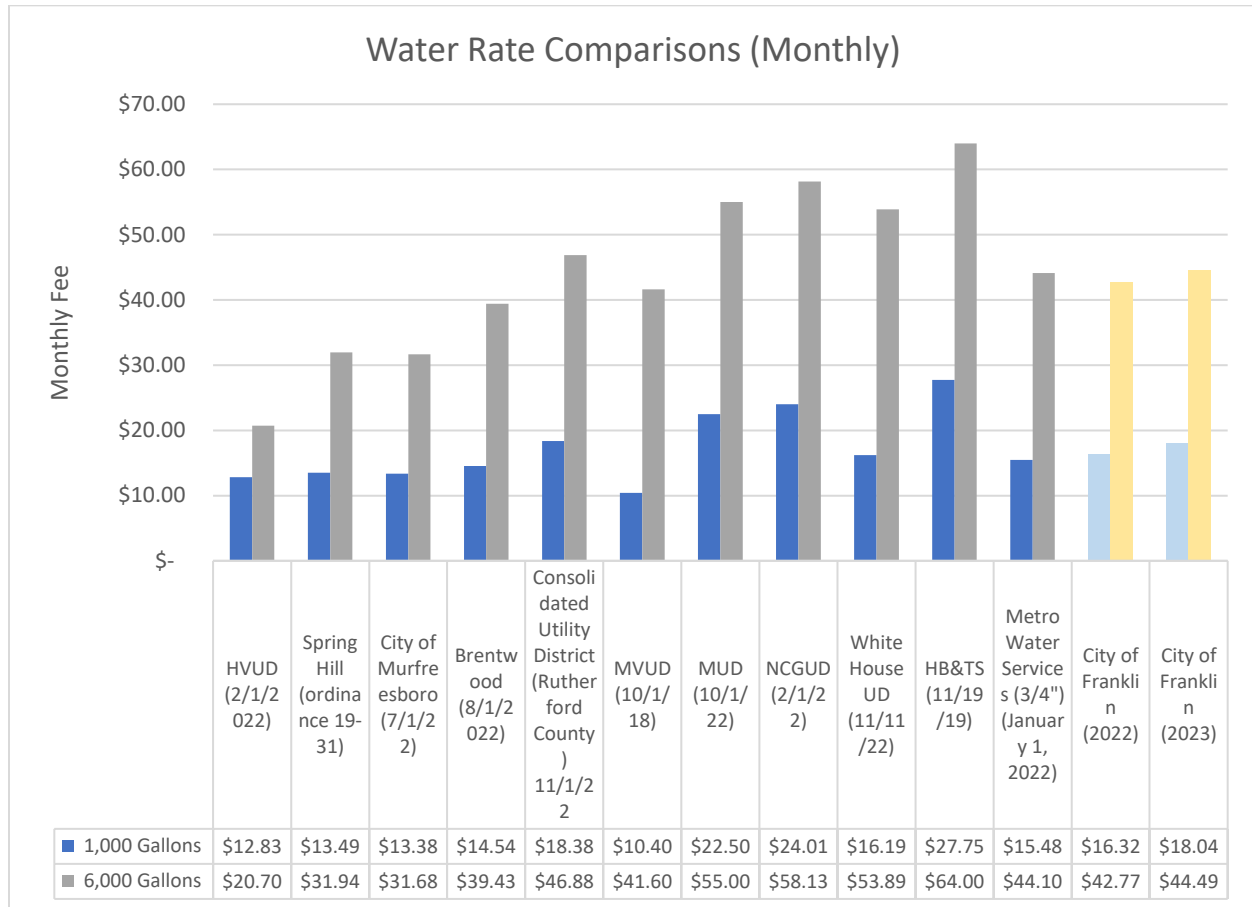
<https://comptroller.tn.gov/boards/state-board-of-equalization/sboe-services/property-tax-incentive-programs/tax-increment-financing.html>

Tax Increment Financing (TIF) is a method utilized by local governments to pay for community improvements with future tax revenues. Local governments are not allowed to intermingle utility revenues with property taxes to pay for improvements to the utility. Therefore, the use of a TIF is not an appropriate tool to use for the projects related to the impact fees.

Municipal Utility Districts (MUDs) and Public Improvement Districts (PIDs) are two of several types of Special-Use Districts (SUDs) and "tools" a developer can use to help finance the cost of roads, sanitary sewer, water lines, and other improvements to meet community needs which could not otherwise be provided. These districts are similar to special assessment districts and are geographically (district)-based. Special assessment districts eventually have improvements paid by those who most benefit from them. Once the developer has financed and constructed the improvements, the SUD is turned over and managed by a board of directors. This Board is elected from the people who live or own businesses within the "district" and has the authority to levy their own taxes and fees on themselves to repay the developer for their costs, repay any outstanding debt, and for future maintenance.

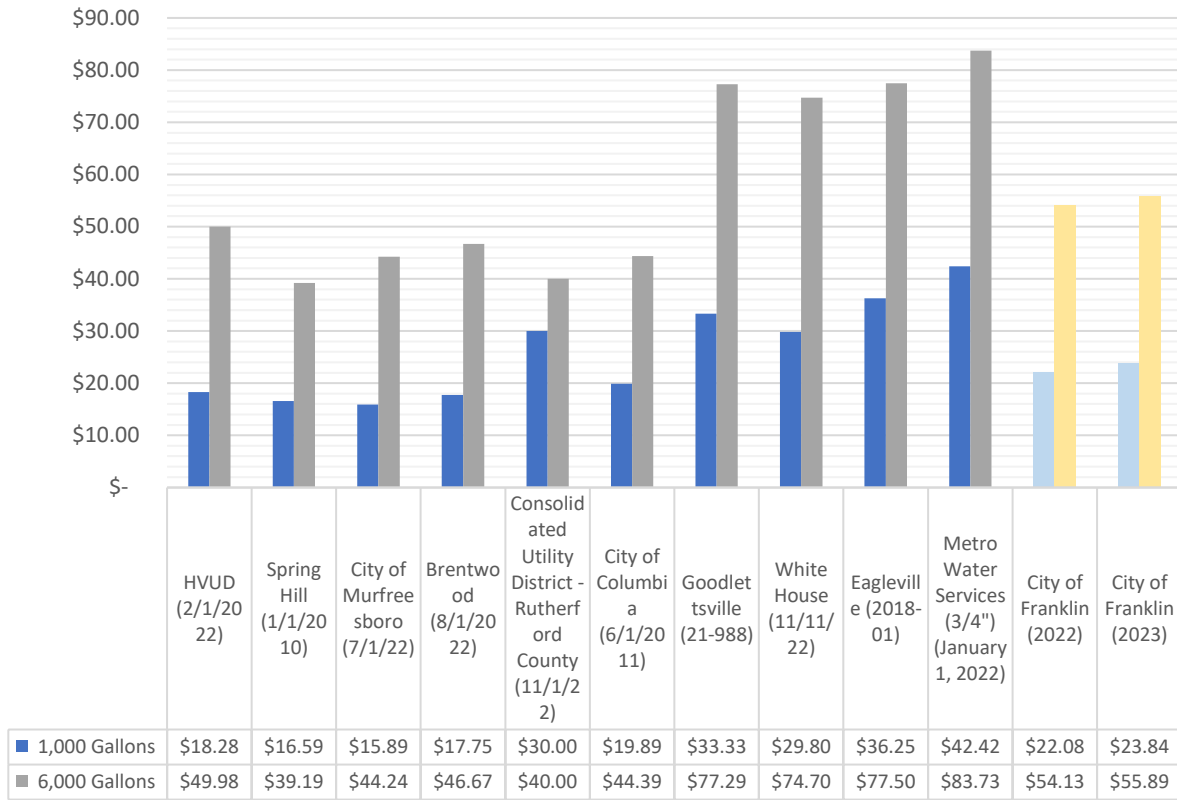
Franklin's proposed impact fees use a unit measure of flow or system demand to equitably distribute costs versus a specific geographic boundary. As has been discussed, a portion of the flows that are treated at the existing Water Reclamation Facility will be diverted in the future to the new treatment facility freeing up capacity to provide for ongoing growth and redevelopment in the northern portion of the City. As such, a defined geographic boundary may not be an equitable way to implement fees across the City.

11. How does the COF rate structure compare to other municipalities and utility districts in Middle Tennessee?



The average water fee for 1,000 and 6,000 gallon usage is \$17.18 and \$44.20, respectively.

Sanitary Sewer Rate Comparisons (Monthly)



The average sanitary sewer fee for 1,000 and 6,000 gallon usage is \$25.51 and \$57.31, respectively.