



# IMPACT FEES

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## 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

	<b>WATER</b>	<b>SEWER</b>
<b>Meter Size</b>	<b>Impact Fee</b>	<b>Impact Fee</b>
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?

## UNIT OF MEASURE (SFUE)

- Distribution and conveyance systems are sized based upon available capacity.
  - 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.

## UNIT OF MEASURE (SFUE)

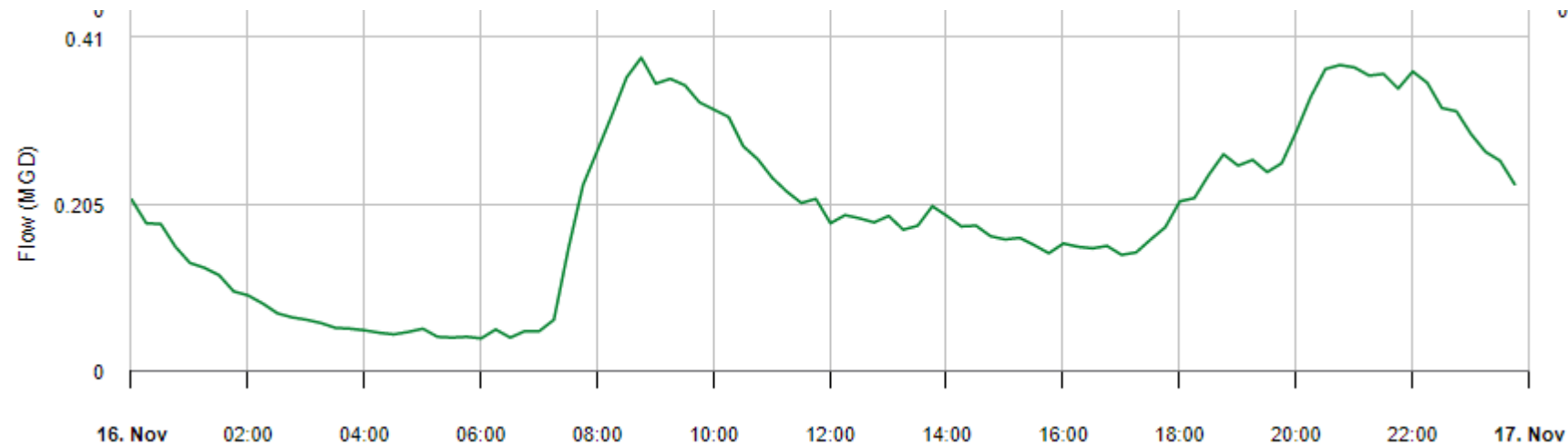
- Distribution and conveyance systems are sized based upon available capacity.
  - Diurnal demands peak in morning and evening based upon residential usage.
  - Water consumption (i.e. utility bills) are based off total consumption throughout the month, does not account for the peaking times when demand (water & sewer) is the highest.
- Example: TN Titans stadium (two football games/month), at half time the sewer system needs to be sized 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 and is not a reliable factor for calculating average monthly usage.

# WHAT IS DIURNAL FLOW?



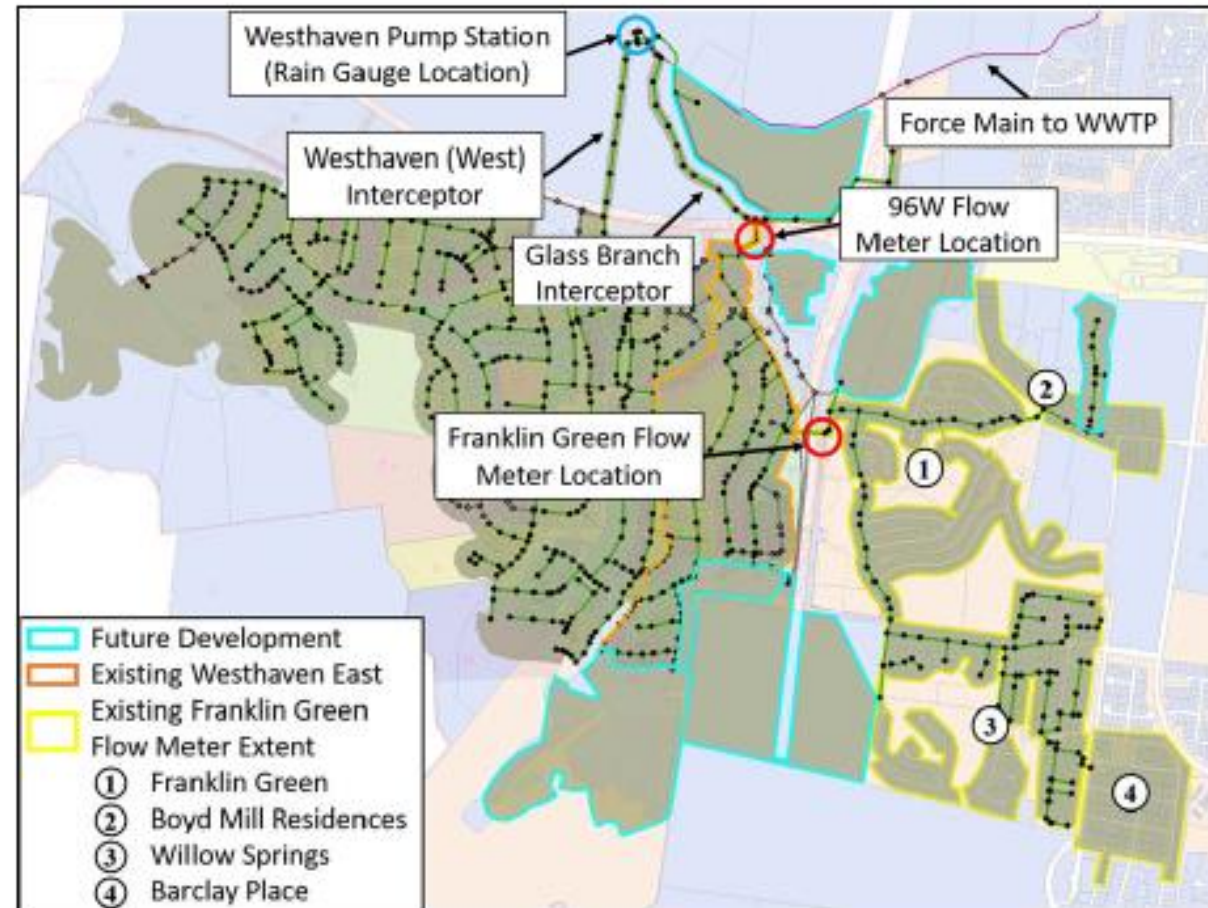
March 31 – April 1, 2022 –  
Westhaven flow meter

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

- 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.

## IMPACT FEES - TYPES

- Equity (Buy-In) Method – assesses new customers a fee to approximate the equity position of current customers. (AWWA M-1, 7<sup>th</sup> 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, 7<sup>th</sup> Edition, p202)
  - 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.



WATER



## WATER – HYBRID RESULTS

### HYBRID CONSOLIDATION

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

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

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



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)	\$ <b>2,391</b>

## 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	\$	<b>3,573</b>



# 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)
- Anticipated construction cost (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)

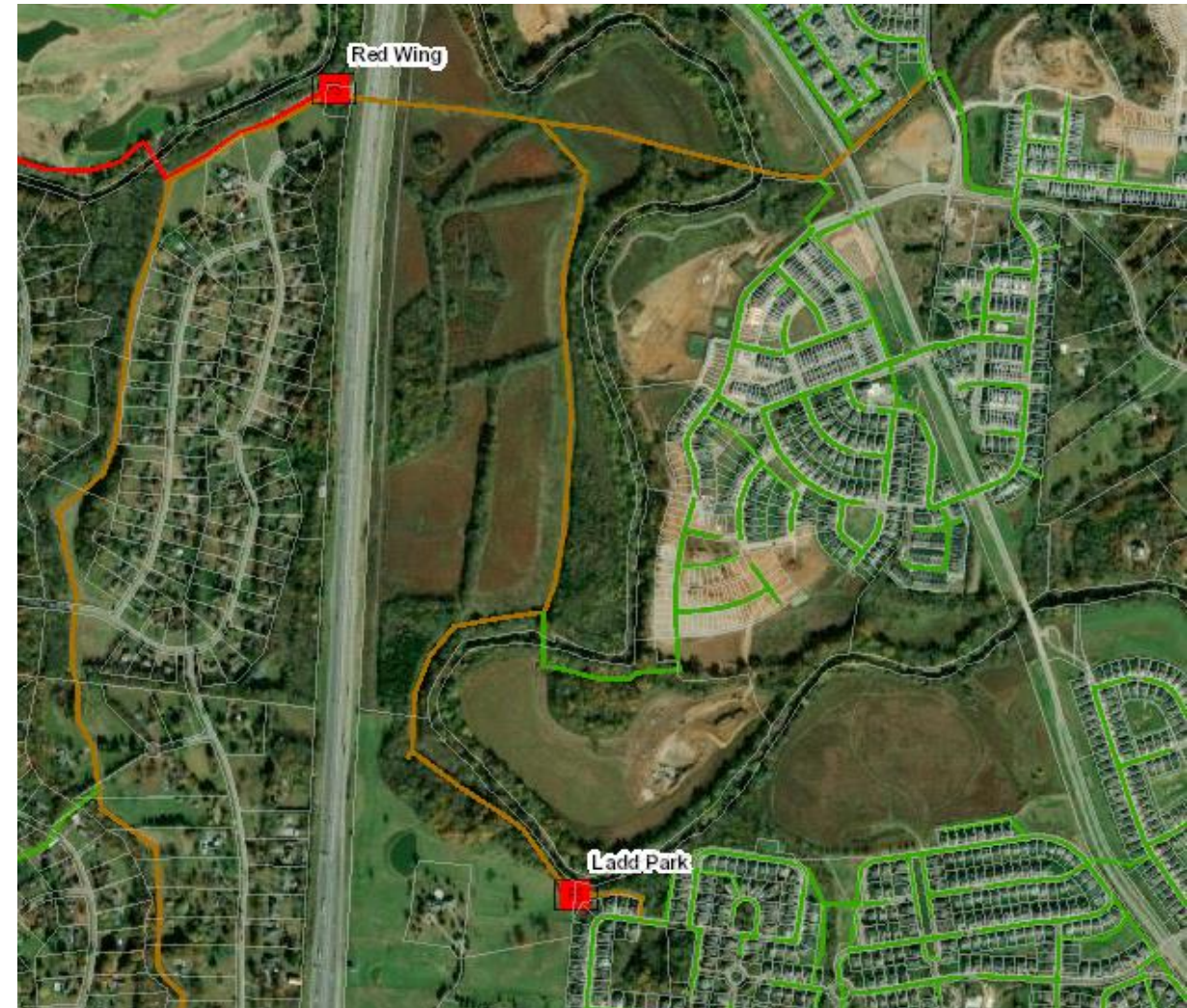
- Equity (Buy-In) Method – Collection = \$2,391
- Incremental Method – Claude Yates Facility = \$3,573
- Incremental Method - Southeast Clean Water Facility = \$10,755
- **IMPACT FEE (TOTAL INVESTMENT) = \$16,719 per SFUE**
  
- Current Impact Fee = \$3,544
  
- **Change = + \$13,172**

## 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)

<b>Year</b>	<b>Number of Permits</b>	<b>Construction Valuation</b>
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
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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.