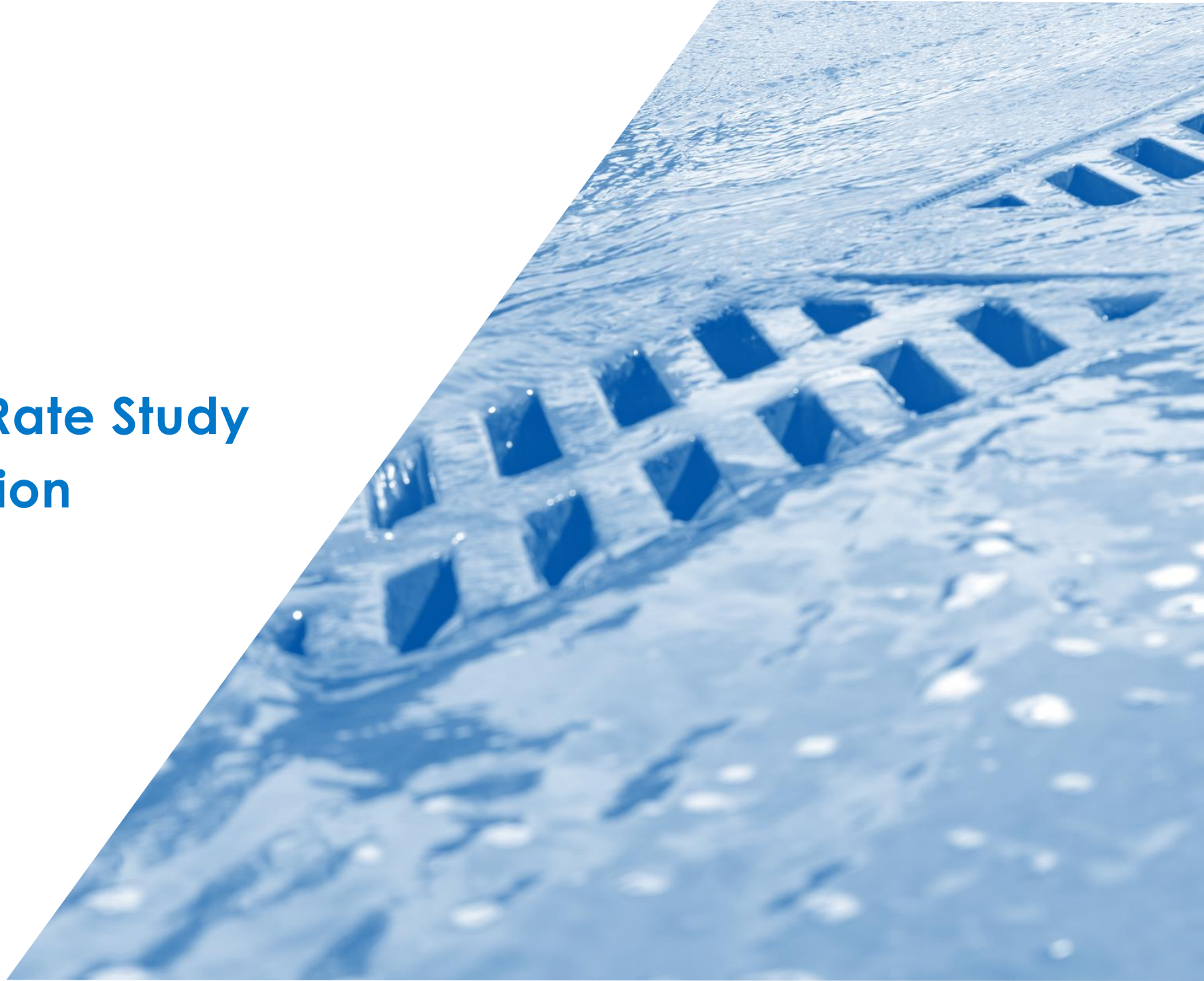


City of Bellaire

2024 Stormwater Rate Study Council Presentation

May 2024



Agenda



**BACKGROUND ON
STORMWATER
MANAGEMENT AND
UTILITIES**



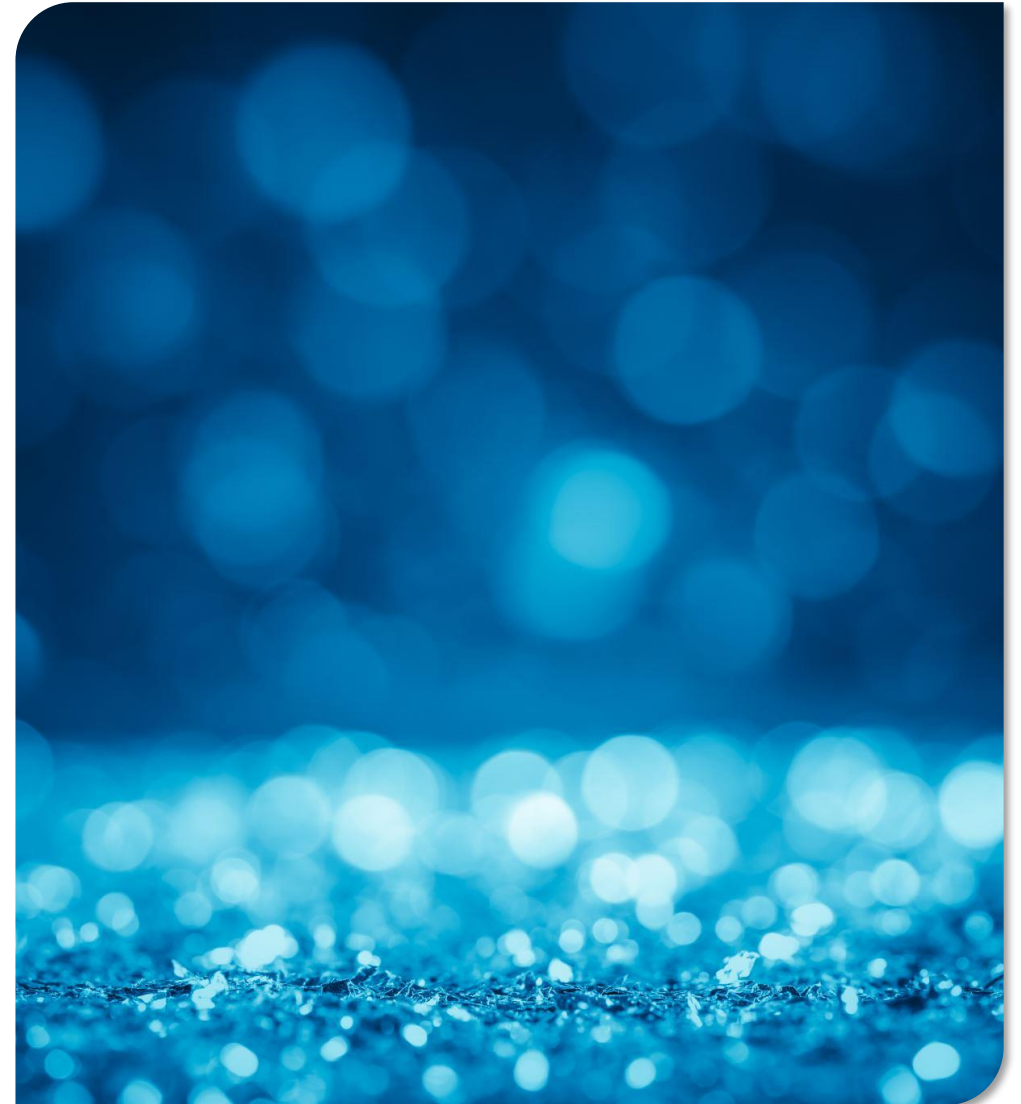
**STORMWATER FEE
CALCULATION
METHODOLOGY**



**STORMWATER
PROPOSED RATE PLAN**



**PRESENTATION
SUMMARY**



The background image shows industrial machinery, likely a pump or motor system, with large pipes and a motor unit. The entire image is covered with a semi-transparent blue overlay. The text "BACKGROUND ON STORMWATER UTILITIES" is centered in white, bold, uppercase letters.

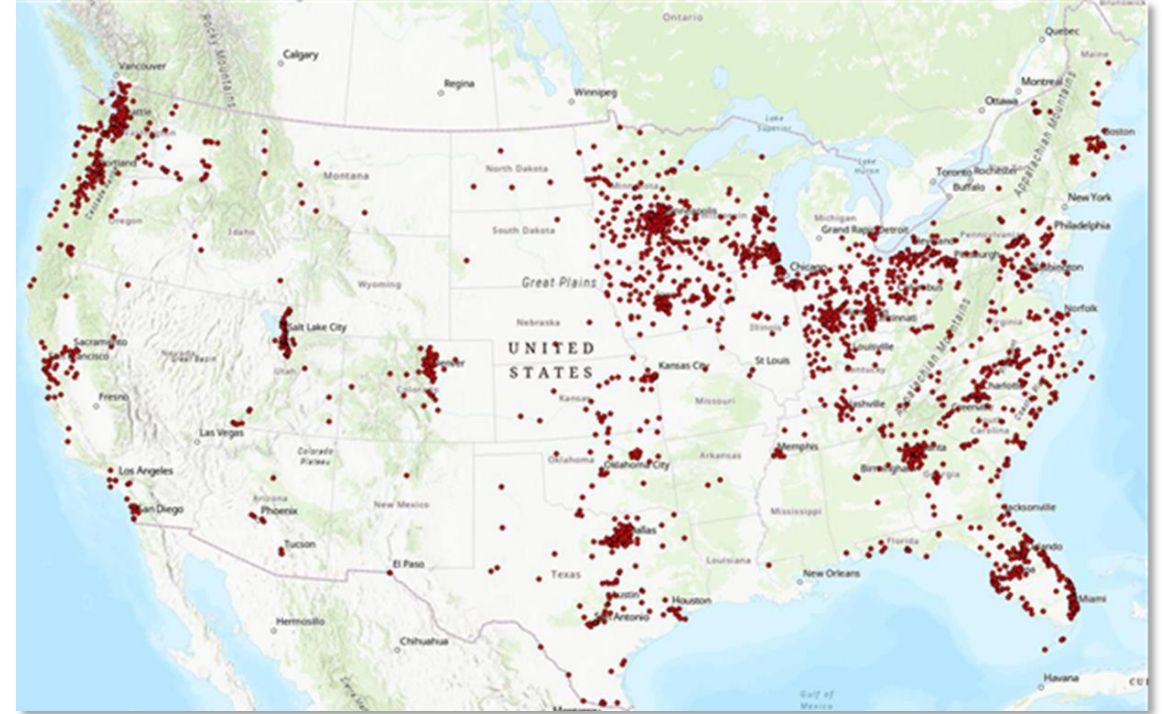
BACKGROUND ON STORMWATER UTILITIES

Facts about Stormwater Management

- Urbanization and development has a significant impact how water moves after storm events
- EPA has issued regulations requiring cities to create and implement comprehensive stormwater management plans
- These regulations and increasing urbanization have led to higher stormwater-related costs
- In the past, cities have mostly absorbed stormwater costs in utility and general funds
- As costs continue to rise and restrictions on general revenues tighten, cities are increasingly establishing separate utilities to finance and manage stormwater operations

Facts about Stormwater Utilities

- The latest Stormwater Utility Survey conducted in 2023 by Western Kentucky University identified over two thousand stormwater utilities (SWUs) located in 42 U.S. states and DC
- Most SWUs are located in Minnesota, Florida, Texas, Pacific Northwest and Upper Midwest
- 11 states have 100 or more SWUs
- Monthly fees range from \$0 to \$45 (for residential rate payers)
- Average monthly single-family residential fee is \$6.06



Source: Western Kentucky University | 2023

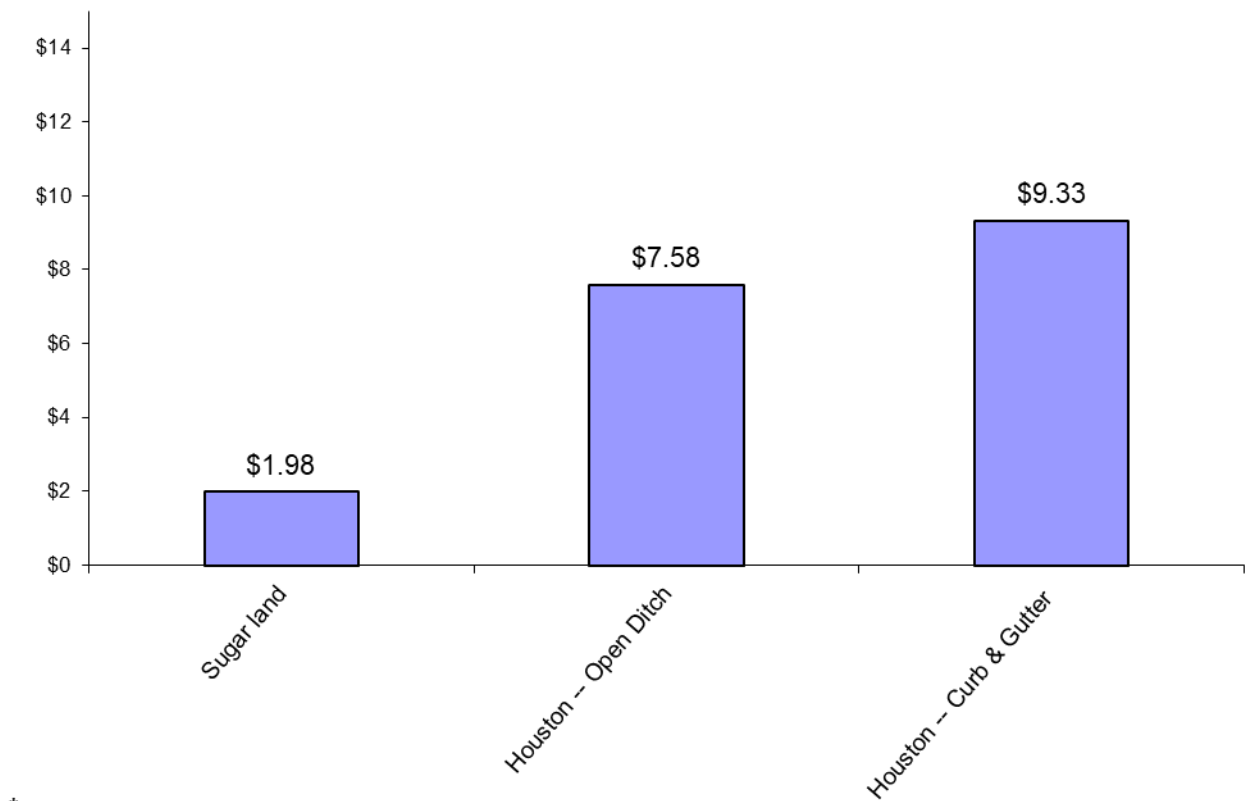
Bellaire Stormwater Background

- Currently, the City doesn't have a Drainage utility (PW department is managing drainage projects)
- Over 95% of properties in Bellaire are at risk of flooding*
- City Staff has identified up to **\$9** million of stormwater capital improvements to address flooding issues and improve drainage systems in the City (CIP project DR2202 - Regional Drainage Program).
- Combination of above factors results in need to create a Drainage utility and implement a new long-term drainage fee rate plan

*Source: *riskfactor.com*



Stormwater Rate Comparison



*Fees as of April 2024

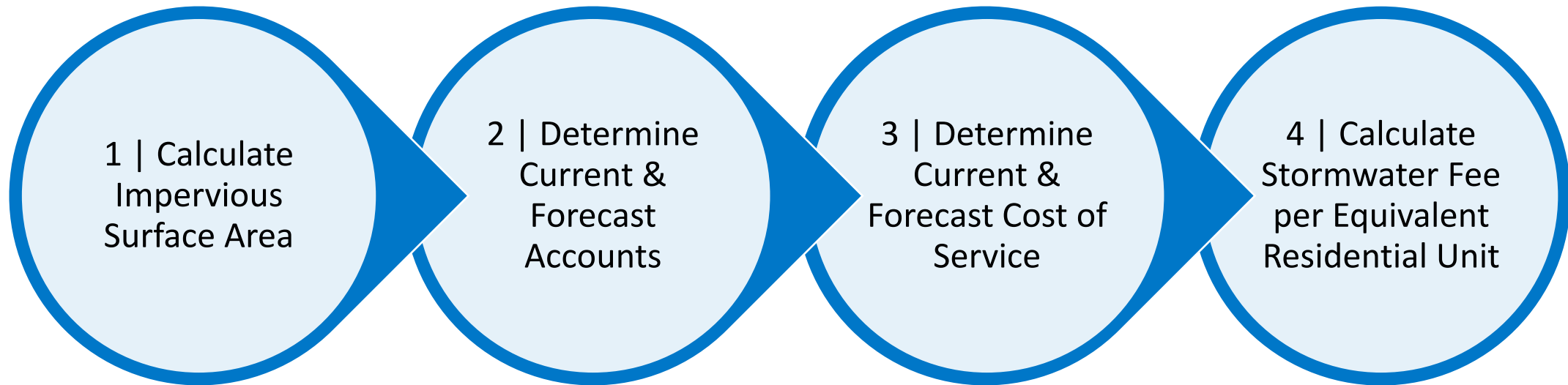
* Based on a single residence with ISA of 3,500 sq. ft.

** No Stormwater fee data was found for other neighboring cities

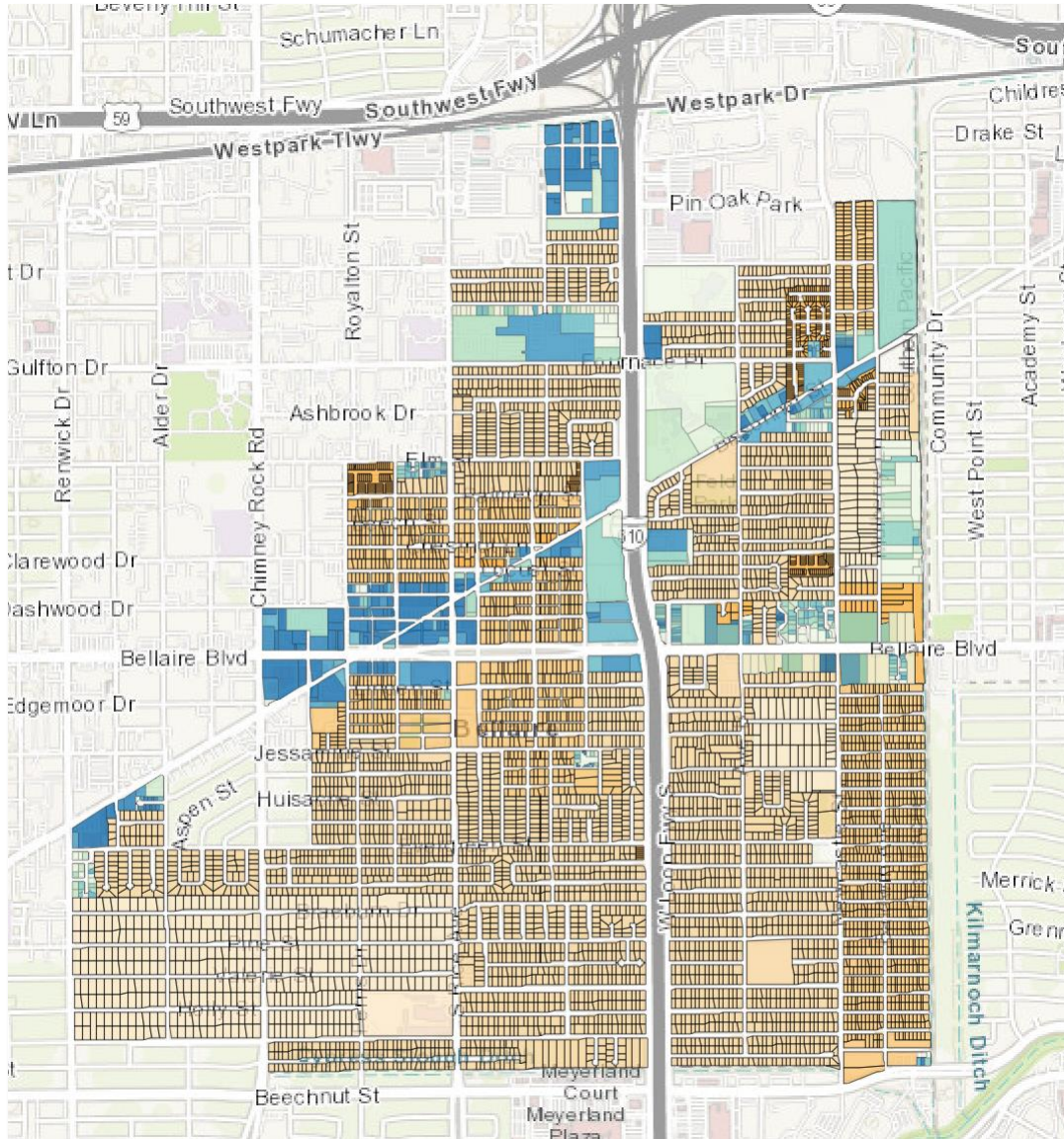
The background image shows a complex industrial or laboratory setup. It features large, dark-colored pipes and machinery. In the center, there are two large, cylindrical components that look like pumps or motors, connected by a network of pipes. The scene is dimly lit, with some light coming from a window on the right side. The overall color scheme is dark and industrial.

STUDY METHODOLOGY

Stormwater Fee Calculation Methodology



Impervious Surface Area Calculation



Total Residential accounts: 6,189

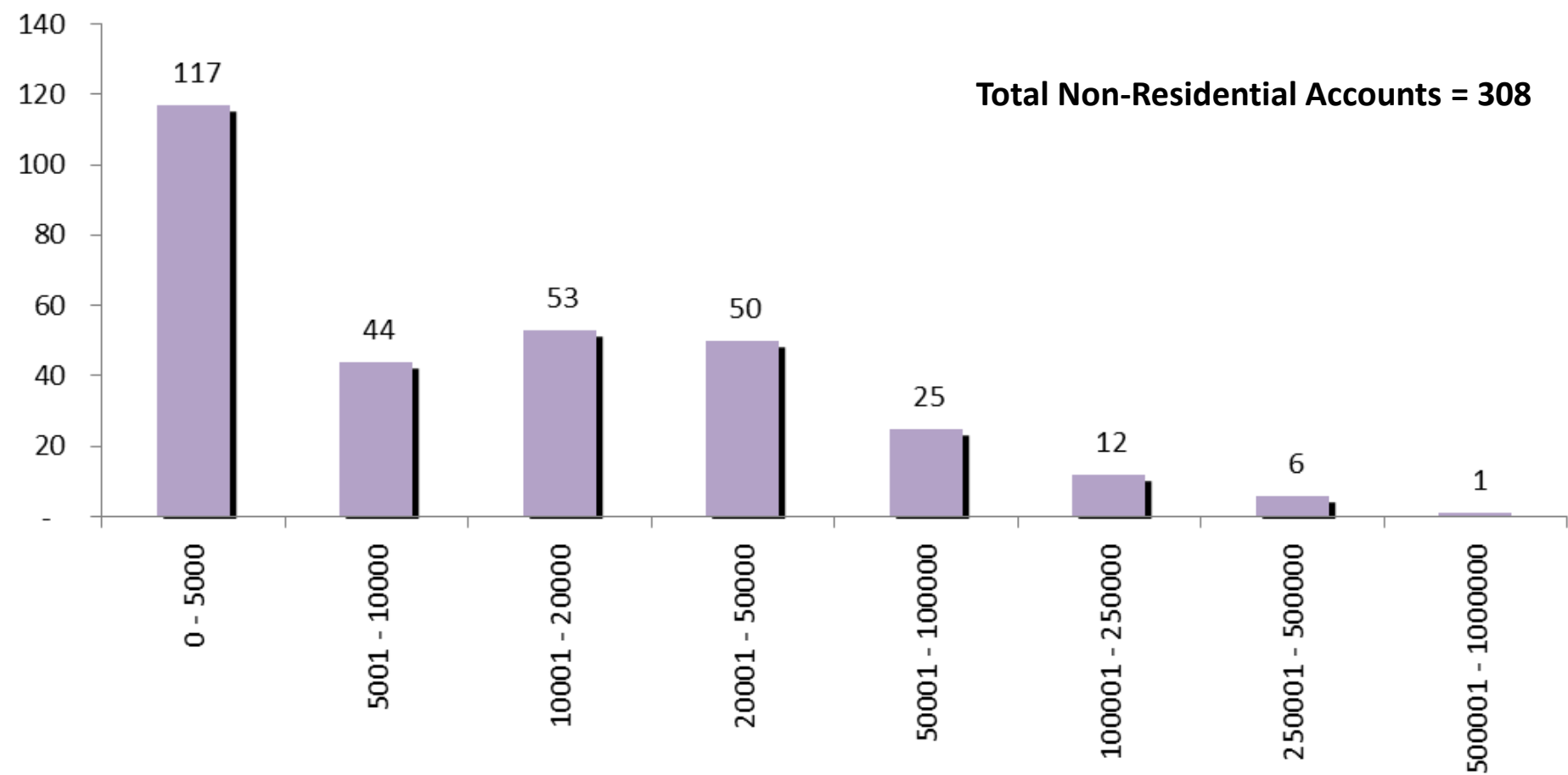
Total Non-Residential accounts: 308

Project team estimates that the number of accounts will remain relatively constant over the forecast period.

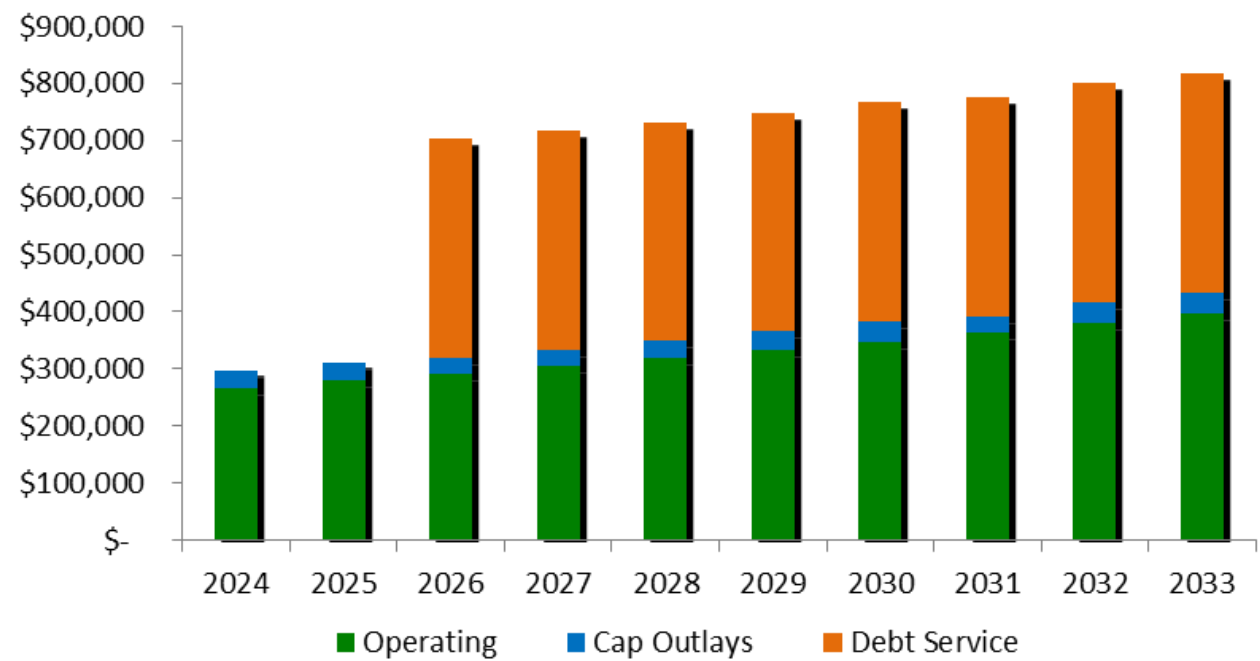
Top 6 largest non-residential customers by ISA (250k+ sq. ft.) :

- 1. CenterPoint Energy**
- 2. SLS Properties**
- 3. Episcopal High School**
- 4. Houston ISD**
- 5. CCI Bellaire (aka. Capital Commercial Investments, Inc.)**
- 6. Protestant Episcopal Church**

Impervious Surface Area (ISA) in sq. ft.



Forecast Cost of Service



20% of PW Budget is allocated to Drainage Utility (this number is highly preliminary)

Operating and personnel expenses are forecast to increase 3-5% per year (some expenses are increasing at a higher rate than others)

City is expected to fund \$9 million in stormwater capital improvement projects (CIP) (this number is subject to change pending stormwater study results)

Founding Sources: \$3M from GF and \$6M with new debt in FY2025. The debt will have a 25-year term and 4.0% APR

The background image shows industrial machinery, likely part of a water treatment plant, featuring large pipes, valves, and a motor. The entire image is covered with a semi-transparent blue filter. The text "STORMWATER PROPOSED RATE PLANS" is centered in white, bold, uppercase letters.

STORMWATER PROPOSED RATE PLANS

Notes on Proposed Rate Plan – O&M Plan

- Generates sufficient revenue to fund only O&M expenditures and Capital Outlays of the Drainage Facility
- 5-year rate plan with adjustments assumed to be effective October 1st of each year
- Assumes a flat rate for Residential customers and Tier-based rate structure for Non-Residential
- Tier structure is based on the Impervious Surface Area (ISA) in sq. ft.



Recommended Monthly Fees – O&M Plan

		Current	2025	2026	2027	2028	2029
Stormwater Monthly Fees							
Residential		\$ -	\$ 4.00	\$ 4.25	\$ 4.50	\$ 4.75	\$ 5.00
Non-Residential							
-	10,000	\$ -	\$ 4.00	\$ 4.25	\$ 4.50	\$ 4.75	\$ 5.00
10,001	50,000	-	4.80	10.20	16.20	22.80	30.00
50,001	100,000	-	12.00	25.50	40.50	57.00	75.00
100,001	250,000	-	28.00	59.50	94.50	133.00	175.00
250,001	500,000	-	56.00	119.00	189.00	266.00	350.00
500,001	Above	-	120.00	255.00	405.00	570.00	750.00

A new fee structure with fixed rates for Residential customers and tier-based rates for Non-Residential customers based on the average imperious surface area (ISA)

Net Revenue Forecast – O&M Plan

The proposed rate plan fully funds O&M Expenditures and Capital Outlays

	2025	2026	2027	2028	2029	2030	2031	2032	2033
Revenues	\$ 323,328	\$ 357,420	\$ 396,442	\$ 437,463	\$ 480,481	\$ 506,267	\$ 530,471	\$ 554,675	\$ 578,879
Less Cost of Service Operating Costs	279,174	292,382	305,439	319,102	333,401	348,364	364,024	380,415	397,571
Capital Outlays	30,760	27,031	27,553	29,345	31,826	34,877	28,242	36,002	36,564
Debt Service	-	-	-	-	-	-	-	-	-
Total Cost of Service	309,934	319,413	332,992	348,448	365,226	383,241	392,267	416,417	434,135
Net Revenues	13,394 4.1%	38,007 10.6%	63,450 16.0%	89,015 20.3%	115,255 24.0%	123,026 24.3%	138,204 26.1%	138,258 24.9%	144,744 25.0%
Drainage Fund Balance	13,394	51,401	114,851	203,866	319,121	442,147	580,351	718,609	863,353

Notes on Proposed Rate Plan – CIP Plan

- In addition to the revenue required for O&M expenditures and Capital Outlays, generates additional revenue to fund the debt service
- Allows the City to issue up to **\$6M** in new debt to fund Stormwater CIP
- Requires significantly higher base rates, may create the shock among customers
- This rate plan also assumes a flat rate for all Residential customers and Tier-based rates for Non-Residential
- Tier structure is based on the Impervious Surface Area (ISA) in sq. ft.



Recommended Monthly Fees – CIP Plan

		Current	2025	2026	2027	2028	2029
Stormwater Monthly Fees							
Residential		\$ -	\$ 6.00	\$ 7.00	\$ 8.00	\$ 9.00	\$ 9.50
Non-Residential							
-	10,000	\$ -	\$ 6.00	\$ 7.00	\$ 8.00	\$ 9.00	\$ 9.50
10,001	50,000	-	7.20	16.80	28.80	43.20	57.00
50,001	100,000	-	18.00	42.00	72.00	108.00	142.50
100,001	250,000	-	42.00	98.00	168.00	252.00	332.50
250,001	500,000	-	84.00	196.00	336.00	504.00	665.00
500,001	Above	-	180.00	420.00	720.00	1,080.00	1,425.00

A new fee structure with fixed rates for Residential customers and tier-based rates for Non-Residential customers based on the average imperious surface area (ISA)

Net Revenue Forecast – CIP Plan

	2025	2026	2027	2028	2029	2030	2031	2032	2033
Revenues	\$ 484,992	\$ 584,729	\$ 700,859	\$ 824,981	\$ 912,721	\$ 919,752	\$ 919,752	\$ 919,752	\$ 919,752
Less Cost of Service Operating Costs	279,174	292,382	305,439	319,102	333,401	348,364	364,024	380,415	397,571
Capital Outlays	30,760	27,031	27,553	29,345	31,826	34,877	28,242	36,002	36,564
Debt Service	-	384,072	384,072	384,072	384,072	384,072	384,072	384,072	384,072
Total Cost of Service	309,934	703,485	717,064	732,520	749,298	767,313	776,338	800,489	818,207
Net Revenues	175,058 36.1%	(118,756) -20.3%	(16,205) -2.3%	92,461 11.2%	163,423 17.9%	152,439 16.6%	143,414 15.6%	119,263 13.0%	101,545 11.0%
Drainage Fund Balance	175,058	56,302	40,097	132,559	295,982	448,421	591,835	711,098	812,643

The proposed rate plan fully funds O&M Expenditures, Capital Outlays and New Debt Service

The background of the slide is a photograph of industrial machinery, likely a water treatment or pumping system. It features large pipes, valves, and a prominent electric motor. The entire image is covered with a semi-transparent blue filter. The word "SUMMARY" is centered in white, bold, sans-serif capital letters.

SUMMARY

- Increasing stormwater costs are a result of urbanization and compliance with EPA regulations
- Rate plan implementation is required to ensure that drainage utility recovers its cost of service
- Drainage fees should be reviewed next year after collecting 12-months of COS data for drainage utility





QUESTIONS & DISCUSSION