

24 JULY 2017 | PRESENTED TO NEWARK CITY COUNCIL



STORMWATER UTILITY RATE STUDY UPDATE

BUILDING A WORLD OF DIFFERENCE®



AGENDA

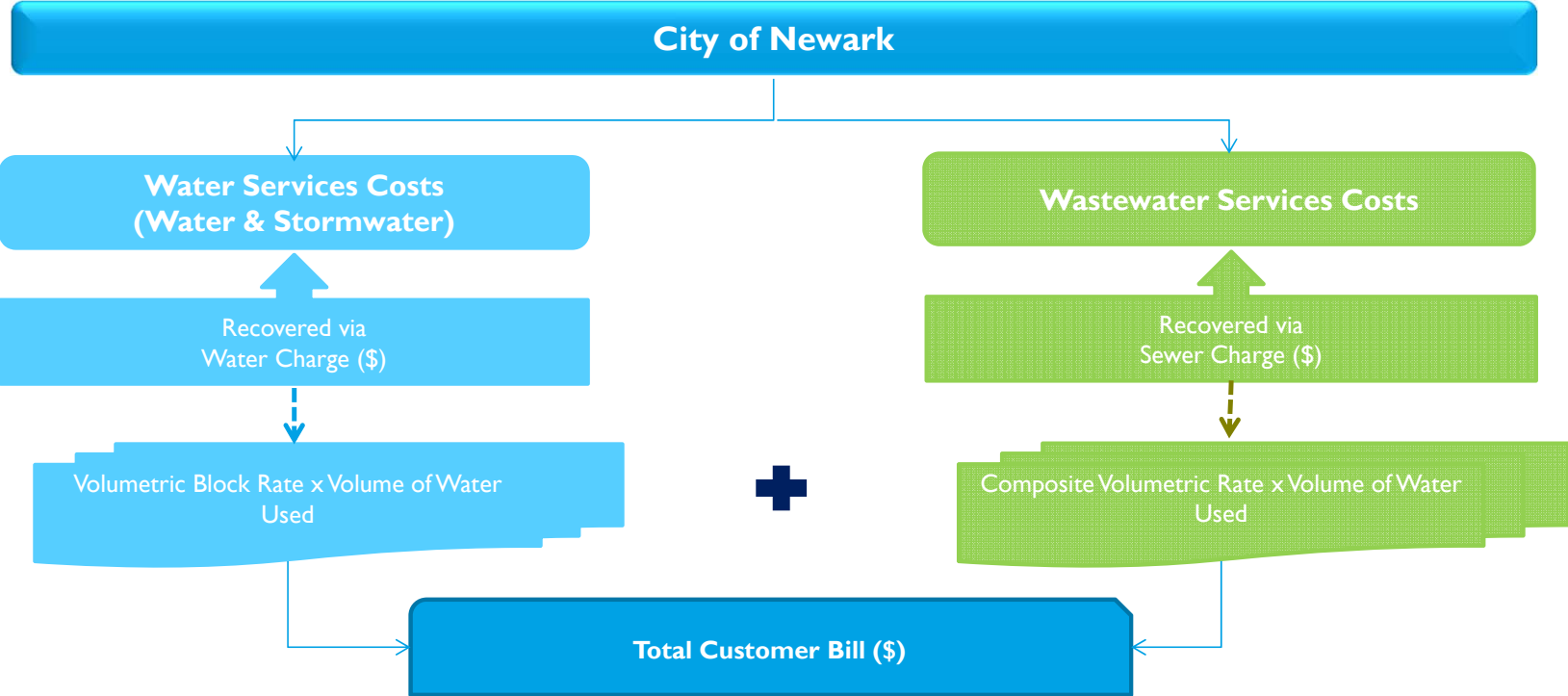
- Stormwater Financial Plan
- Stormwater Rate Structure
- Bill Impact
- Stormwater Credit and Appeals Program

Stormwater Financial Plan

2017 Water / Sewer Rate Structure

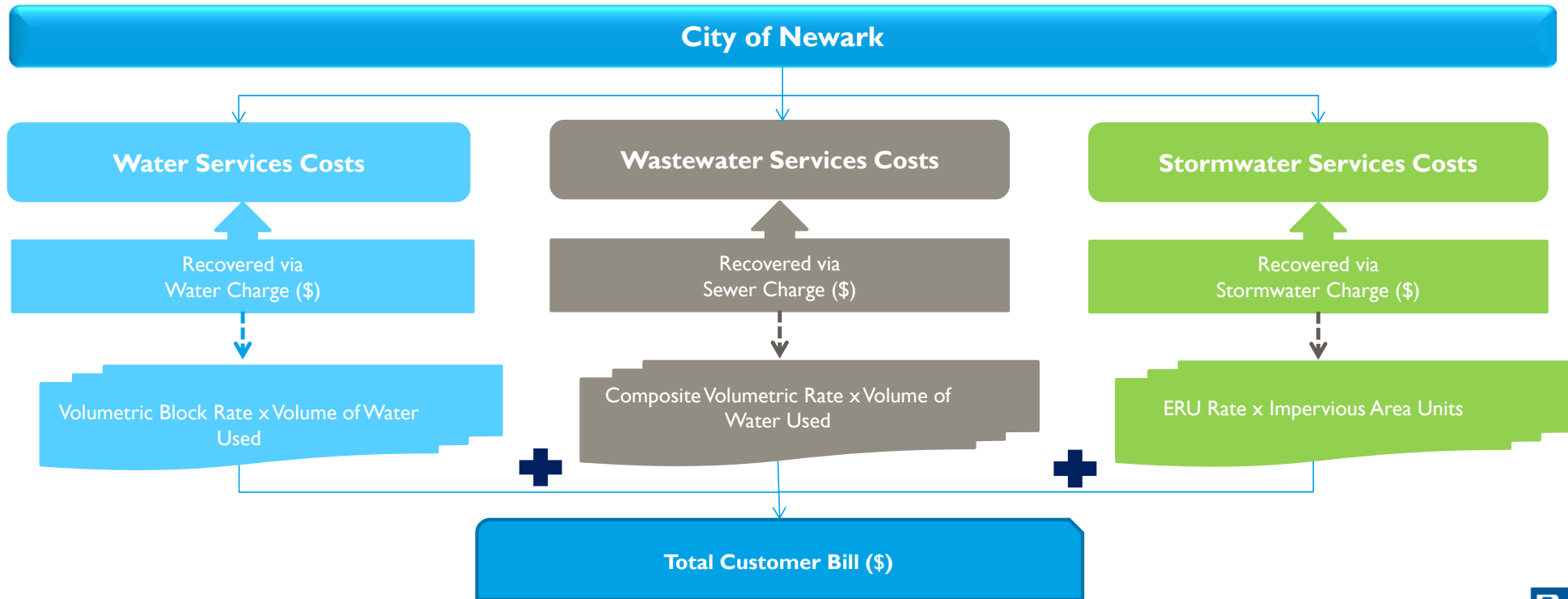
Newark's Current Rate Structure without Stormwater User Fee

- **Water (water and stormwater):** Inclining volume charge based on water usage
- **Wastewater (sewer):** One volume charge based on water usage



2018 Water / Sewer / Stormwater Rate Structure

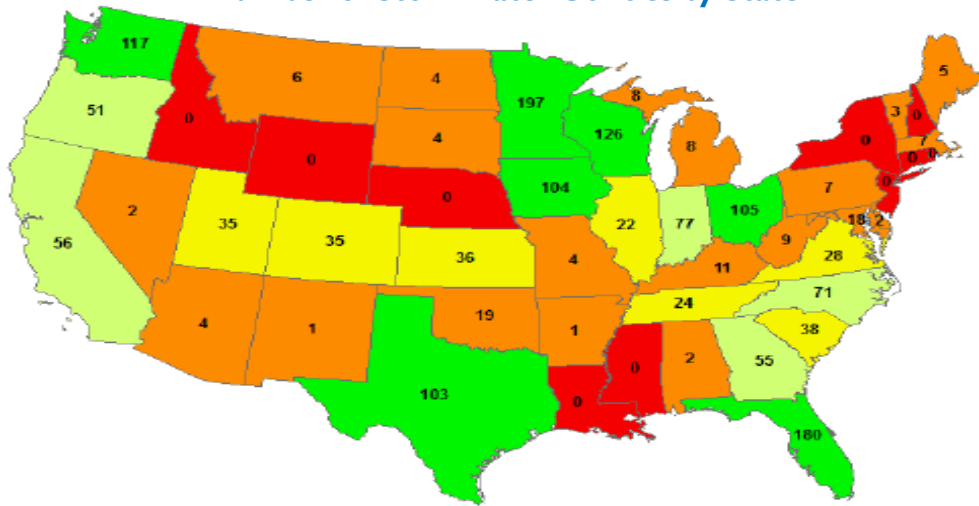
- **Water (water and stormwater):** Inclining volume charge based on water usage
- **Wastewater (sewer):** One volume charge based on water usage
- **Stormwater user fee:** Based on parcel's impervious area; reasonably correlates to a parcel's stormwater contribution
- **Designed to be revenue neutral in 2018; would not be a new revenue source for Newark**



National Stormwater Utility Trends

1,600+ Stormwater Utilities in the US

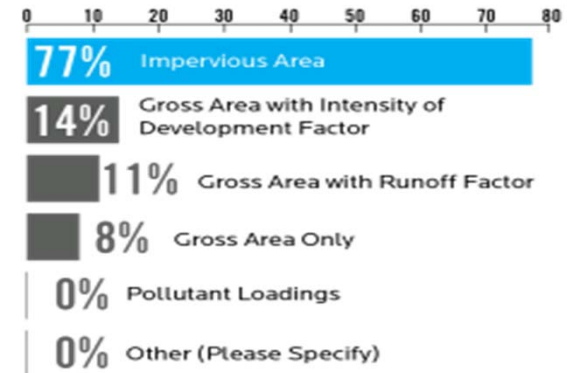
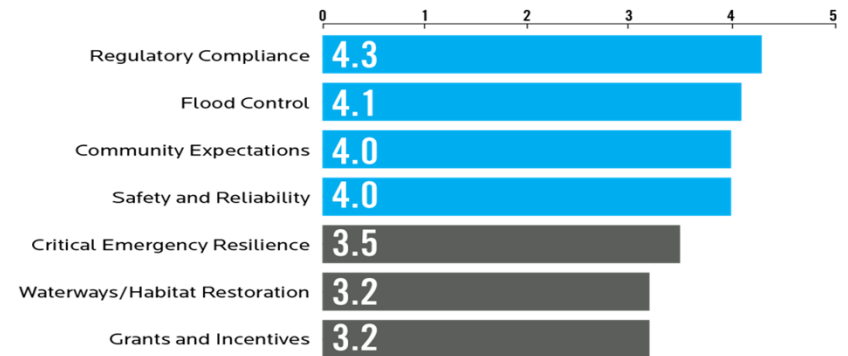
Number of Stormwater Utilities by State



Source: Western Kentucky University Survey - 2016

National Average: Single Family Residential Annual Stormwater User Fee: \$60.00

Critical Drivers for Stormwater User Fee Funding

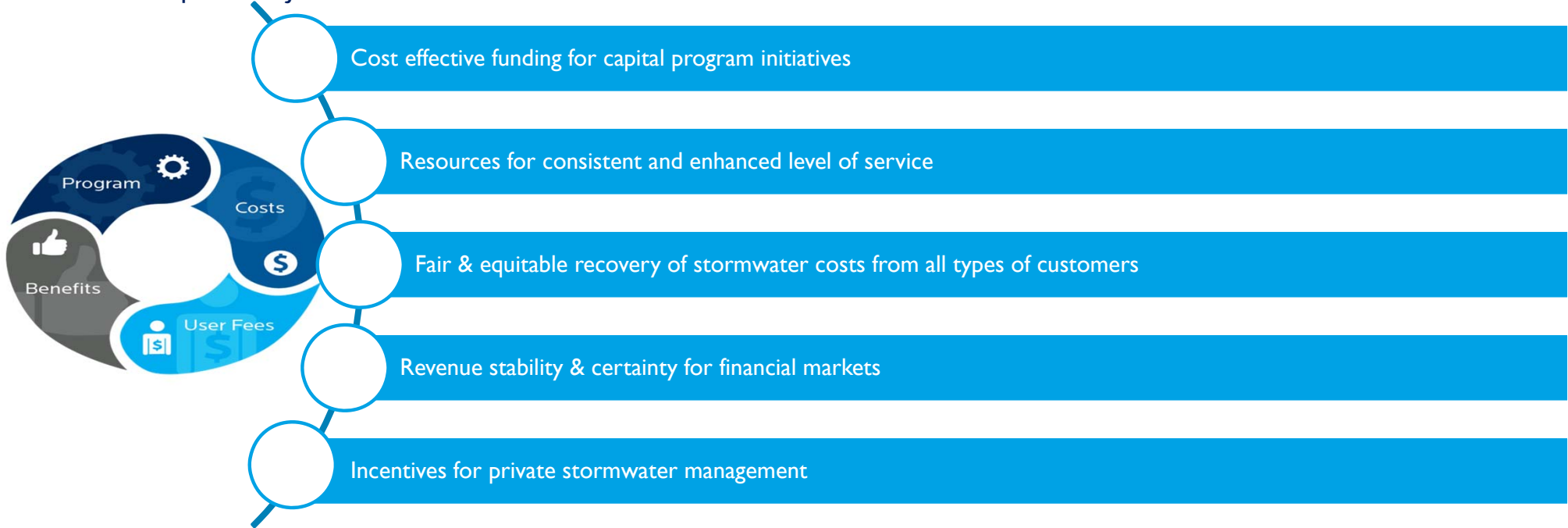


Source: 2016 Stormwater Utility Survey: A Black & Veatch Report

Stormwater User Fee Paradigm

A stormwater user fee program provides stronger alignment among *Program Needs*; *Costs of Service*; *Recovery of Costs*; and *Customer Benefits*

Fulfills multiple objectives



Proposed Operating Pro Forma - Stormwater

Line No.		2018	2019	2020	2021
1	Revenue Under Existing Rates	\$0	\$1,435,200	\$1,435,200	\$1,435,200
2	Proposed Fee per ESU	\$2.89			
3	Revenue Increase		0%	0%	0%
4	Total Revenue from Charges	\$1,315,600	\$1,435,200	\$1,435,200	\$1,435,200
5	Total Revenue (Includes Miscellaneous Revenue)	1,426,500	\$1,546,100	\$1,546,100	\$1,546,100
6	Operation & Maintenance	-\$984,900	-\$983,200	-\$998,500	-\$1,015,100
7	Debt Service	\$0	\$0	\$0	\$0
8	Cash Financing of Capital	-\$460,000	-\$481,000	-\$503,100	-\$526,200
9	Transfer (to)/from Operating Reserve	-\$36,500	-\$36,500	-\$52,200	-\$3,600
10	Transfer (to)/from Capital/Equipment Reserve	-\$55,100	-\$37,700	\$0	-\$1,200
11	Transfer(to)/from Sewer	\$110,000	\$0	\$0	\$0
12	Total Revenue Requirements	-\$1,426,500	-\$1,538,400	-\$1,553,800	-\$1,546,100
Fund Balances					
13	Beginning of Year Cash Balance	\$0	\$0	\$7,770	\$0
14	Net Annual Balance	\$0	\$7,700	-\$7,700	\$0
15	End of Year Balance	\$0	\$7,700	\$0	\$0
16	Operating Reserve Balance (Number of Days)	\$36,500 15	\$73,000 30	\$125,200 50	\$128,800 50

Proposed Capital Financing Plan – Stormwater

Line No.	Capital Sources and Uses	2018	2019	2020	2021
1	Major Capital Improvements	-\$478,000	-\$481,000	-\$503,100	-\$526,200
2	Cash Financing of Capital	\$460,000	\$481,000	\$503,100	\$526,200
3	Equipment Reserve Fund	\$18,000	\$0	\$0	\$0
4	Capital Reserve	\$0	\$0	\$0	\$0
5	Total Balance	\$0	\$0	\$0	\$0
Capital/Equipment Fund Balance					
6	Beginning of Year Balance	\$0	\$37,100	\$74,800	\$74,800
7	Transfers from Operating	\$55,100	\$37,700	\$0	\$1,200
8	Interest Income	\$0	\$0	\$0	\$0
9	Funding of Major Capital Improvements	-\$18,000	\$0	\$0	\$0
10	End of Year Balance	\$37,100	\$74,800	\$74,800	\$76,000

2017 Stormwater Revenue Requirements

Line No.		Water	Sewer	Total
1	Stormwater O&M	\$711,840		\$711,840
2	Cash Financed Capital	\$390,000		\$390,000
3	One-time Stormwater Implementation Costs		\$250,000	\$250,000
4	O&M Reserve	\$29,300		\$29,300
5	Capital/Equipment Reserve	\$60,000		\$60,000
6	Total	\$1,161,840	\$250,000	\$1,411,840

2018 Stormwater Revenue Requirements

Line No.		Water	Sewer	Stormwater	Total
1	Stormwater O&M			\$984,900	\$984,900
2	Cash Financed Capital			\$460,000	\$460,000
3	One-time Transfer to Stormwater		-\$110,000		-\$110,000
4	O&M Reserve			\$36,500	\$36,500
5	Capital / Equipment Reserve			\$55,100	\$55,100
6	Total	\$0	-\$110,000	\$1,536,500	\$1,426,500

2018 Revenue Adjustments With and Without Stormwater



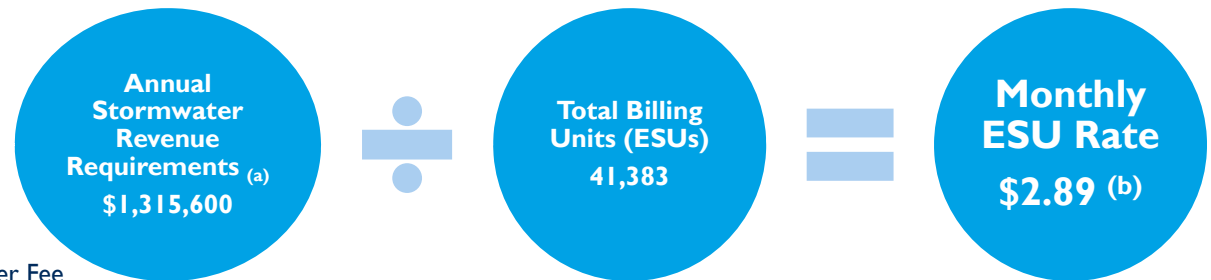
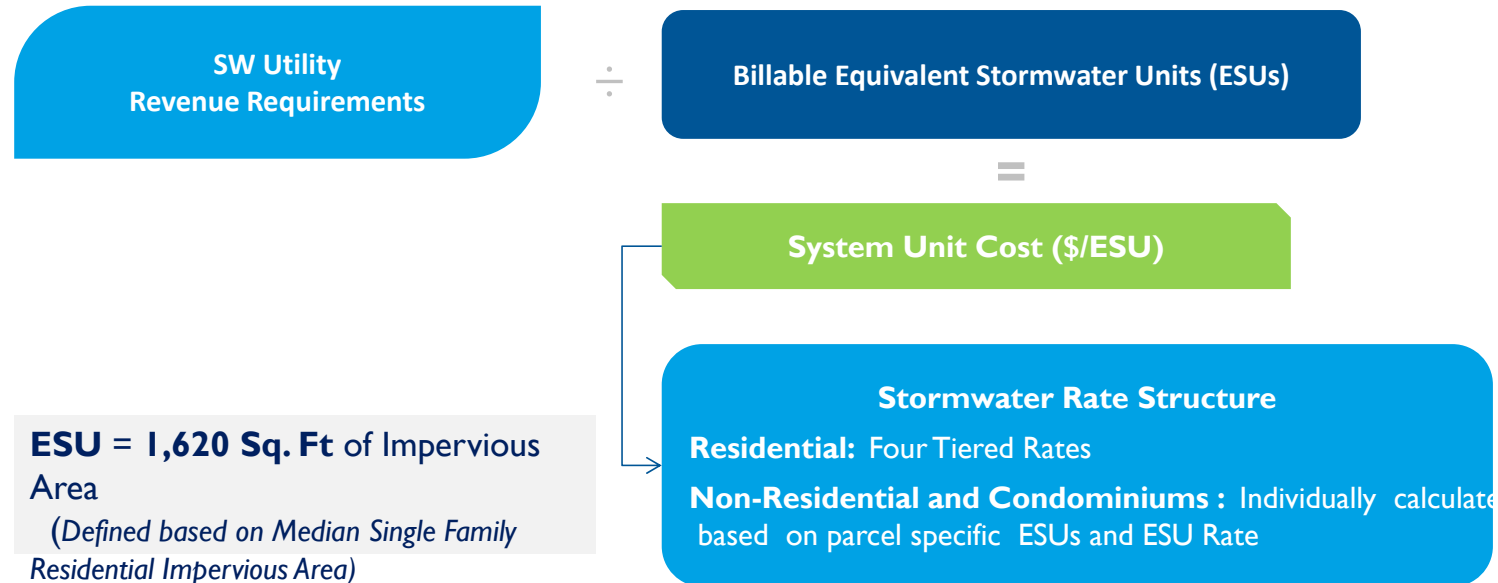
^(a) Total 2017 Projected Sewer Revenue = \$7,377,200; \$3,297,600 is pass through to County for wastewater treatment

Stormwater Rate Structure

Equivalent Stormwater Unit & Rate Structure

Key Steps Involved Are:

- Determine the value of Equivalent Stormwater Unit (ESU)
- Translate Billable Impervious Area to ESUs
- Compute System-Wide ESU Rate



- (a) To be recovered from Stormwater User Fee
 (b) Assumes 11 months of revenue in 2018

How did we determine impervious area?

Stormwater Class Description	Runoff Factor
Commercial	95%
Government	95%
Industrial	90%
Institutional	90%
Multi Family Apartment	75%
Parks & Cemeteries	25%
Paved Surface	95%
Parking	95%
Recreational Playground/Arenas	35%
Utilities	90%
Vacant	30%

IMPERVIOUS AREA METHODOLOGY

- Residential
- Non-Residential
- Condominium

- Residential
 - Actual building footprint from County
- Non Residential
 - Land use based run-off coefficient
- Condominium
 - Individually determined using GIS

Proposed Stormwater User Fees

RESIDENTIAL CHARGES

Tier	Impervious Area	ESUs	Monthly SW Fee	Parcel Count	% of Total
Tier 1	0 – 1,289 sq ft	0.60	\$1.73	1,873	31%
Tier 2	1,290 – 1,950 sq ft	1.00	\$2.89	2,508	41%
Tier 3	1,951 – 2,610 sq ft	1.30	\$3.76	1,345	22%
Tier 4	2,611 + sq ft	1.80	\$5.20	390	6%

NON-RESIDENTIAL AND CONDOMINIUM - EXAMPLE CHARGES

	Non-Residential	Condos
Gross Parcel Area	5,000 Sq. Ft.	61,420 Sq. Ft.
Impervious Area	$0.95 \times 5,000 = 4,750$ Sq. Ft.	$0.97 \times 61,420 = 59,964$ Sq. Ft.
Calculated ESUs	$4,750 / 1,620 = 2.93$	$59,694 / 1,620 = 36.85$
Monthly SW Fee	$2.93 \times \$2.89 = \8.47	$36.85 \times \$2.90 = \106.50

Billable Stormwater Units

Customer Classes	Number of Parcels	Impervious Area (sq ft)	Number of ESUs ¹
Residential	6,116	9,360,660	5,778
Condominiums	18	1,626,699	1,004
Non Residential	1,079	56,053,665	34,601
Total	7,213	67,041,024	41,383

Residential Tiers	Impervious Area (sq ft)	Number of Parcels	Number of ESUs ¹
Tier 1	0-1,289	1,873	1,068
Tier 2	1,290-1,950	2,508	2,383
Tier 3	1,951-2,610	1,345	1,661
Tier 4	2,611 +	390	667
Total		6,116	5,778

Bill Impact

Residential 2017/2018 Customer Bill Impact

Example: Residential – Single Family	
Meter Size	5/8-inch
Avg. Annual Water Use (Gallons)	4,000
ESUs	1.0

Bill Component	2017 Monthly Charge Without SW Charge	2018 Monthly Charge Without SW Charge	2018 Monthly Charge With SW Charge
Water	\$30.17	\$30.17	\$30.17
Wastewater		\$42.83	
Sewer	\$32.30		\$32.30
Stormwater			\$2.89
Total Charge	\$62.47	\$73.00	\$65.36
Difference (%) *		\$10.53 (16.9%)	\$2.89 (4.6%)

Benefit of Stormwater User Fee: Equitable Stormwater Cost Recovery and Enhanced Revenue Stability

* Difference based on comparison with 2017 Monthly Charge

Stormwater Credit and Appeals Program

Credit Program – Technical Criteria

Credits: Manage Water Quality and/or Water Quantity

Level	Criteria	Quality Credit	Quantity Credit	Max. Combined
1	Meets Code *	5%	5%	10%
2	Exceeds Code*	Up to 15%	Up to 10%	25%

Exceedance Requirements:

Infiltrate: 1-2.5” of Runoff

Manage: Peak Discharge Rate

<u>Post</u>	to	<u>Pre</u>
10 yr.		2 yr.
25 yr.		10 yr.
50 yr.		25 yr.
100 yr.		50 yr.

100% Infiltration: 50% stormwater credit

* Code: refers to Delaware sediment and stormwater regulations

Credit Program – Administrative Requirements

- **Eligibility Requirements:**
 - Non-residential Parcel
 - Current with all City taxes and Fees
- **Application:** Submit per credit manual requirements
- **Application Fee:** \$150 per parcel
- **Validity:** 4-years
- **Documentation Requirements:**
 - Site plan(s)
 - Drainage plan(s)
 - Stormwater management facility drawings and details
 - Engineering calculations, etc.
- **Other Requirements:**
 - Allow City right-of-entry

Appeals Program

- **Provides mechanism to address:**
 - Billing data exceptions
 - Exceptions to estimated impervious area
- **Allowable appeals:**
 - Stormwater Classification
 - Gross Parcel Area
 - Estimated Impervious Area
- **Application Fee:**
 - No Fee
- **Documentation Requirements:**
 - Supporting Documentation
 - Complete Application Form

Contact Us

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