

# City of Rehoboth Beach Stormwater Utility Task Force November 1, 2022 Meeting



# Today's Presentation

- Meeting Goals and Objectives
- Recap from September Meeting
- Review ERU and Stormwater Billing Unit (SWBU) rate structures
- Discussion of expenditures used for preliminary rates
- Review preliminary rates or ranges of rates based on different rate structures
  - ERU with tiers
  - SWBU
- Timeline moving forward
- Future Task Force Meeting Topics



# Meeting Goals and Objectives

- Understand Equivalent Runoff Unit (ERU) vs. Stormwater Billing Unit (SWBU) rate structures
- Understand expenditures used for preliminary rates
- Review preliminary rates
- Decide on rate structure to use
- Understand next steps



# September Meeting Takeaways

- Agreement on:
  - Minimum impervious surface to receive a fee – 100 ft<sup>2</sup>
  - Increase in escalation in expenditures from 2% a year
  - Implement credits/incentives, but possibly wait to implement all options
  - Establish a process for property owners to appeal the stormwater billing



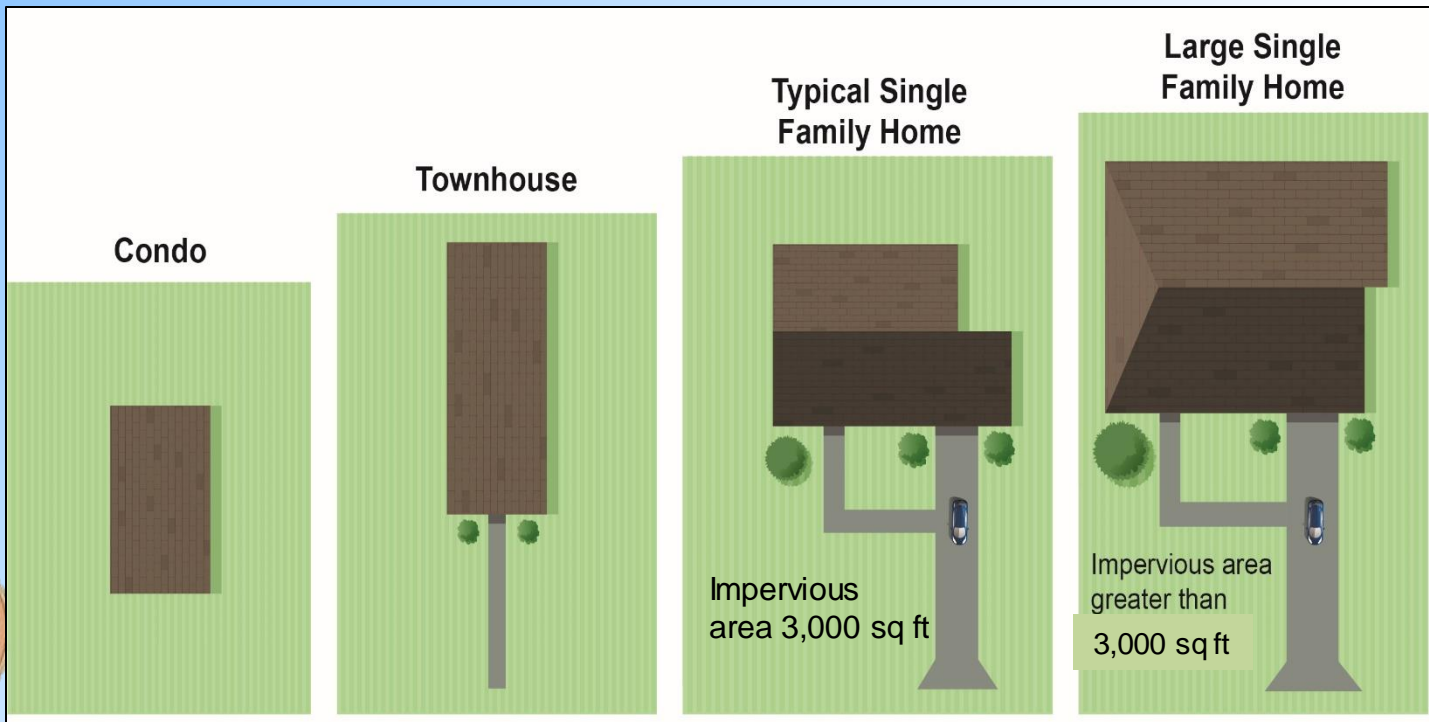
# ERU and SWBU Rate Structures

- General overview of each
- Advantages of both rate structures



# Equivalent Runoff Unit (ERU) Method

- Typically derived from the mean impervious surface area of a single-family residential detached property
- A fee is set for the ERU, and residential tiers can be applied to adjust the fee to be fairer.
- Non-residential properties charged based on total impervious surface area

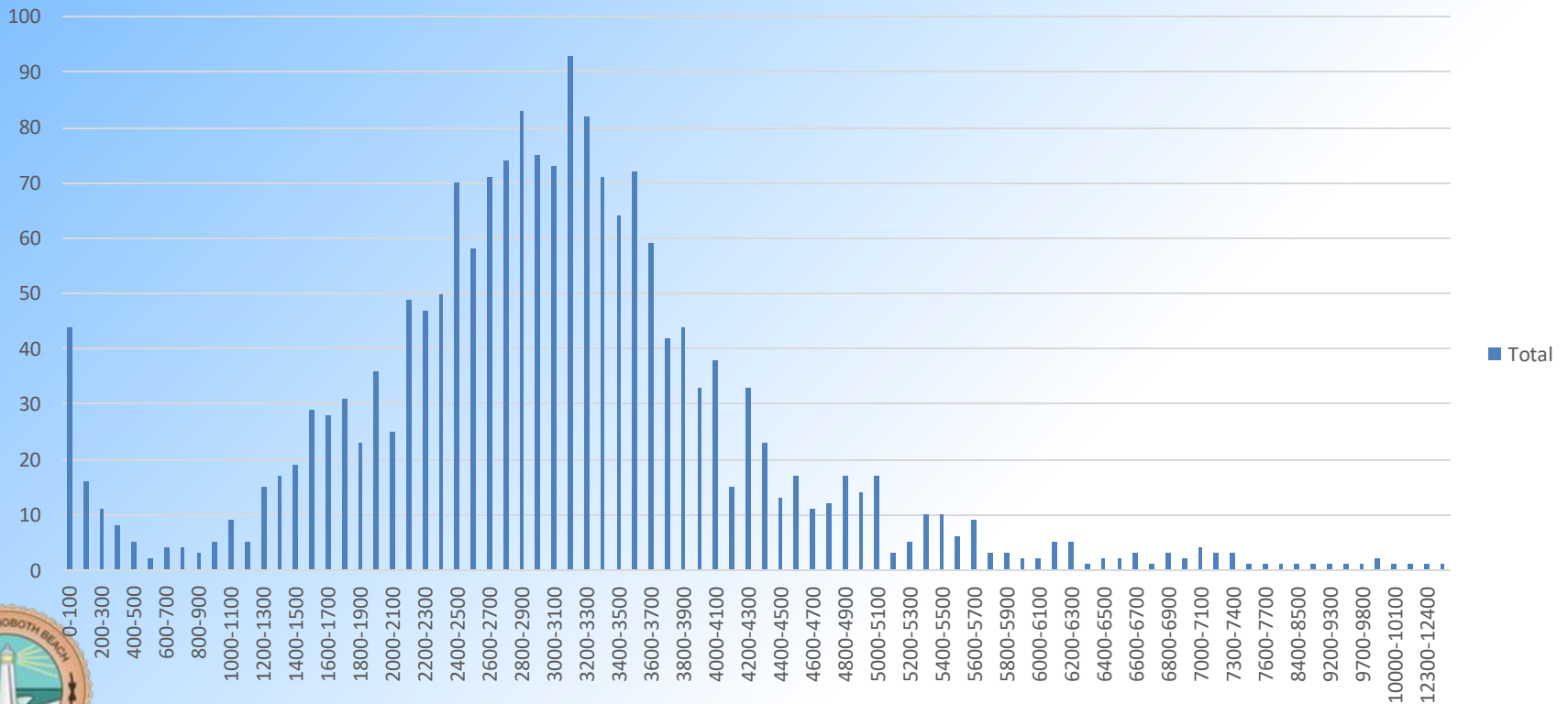




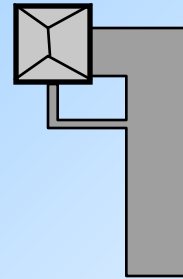
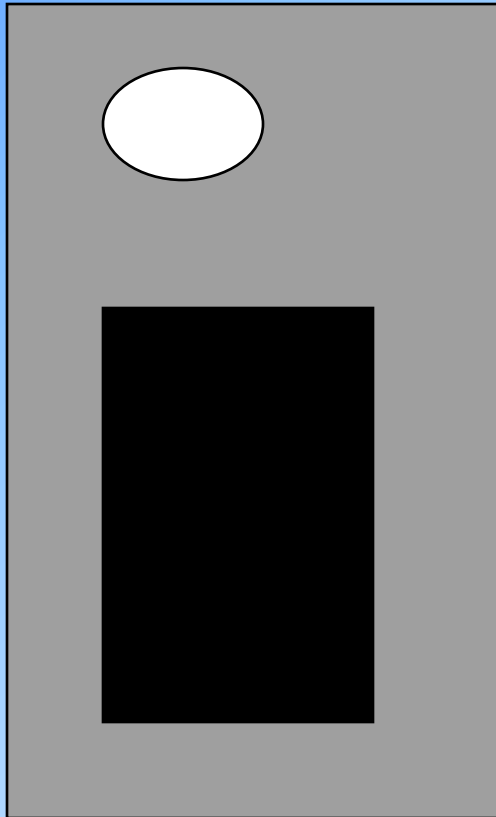
# ERU for City of Rehoboth Beach

Mean impervious surface area of a residential single-family detached property - **3,000 Square Feet**

Total



# Stormwater Utility – ERU Basis



**= 1 ERU**

(Equivalent Runoff Unit)  
3,000 square feet

**= 10 ERUs** for Commercial



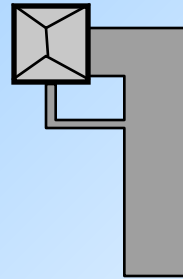
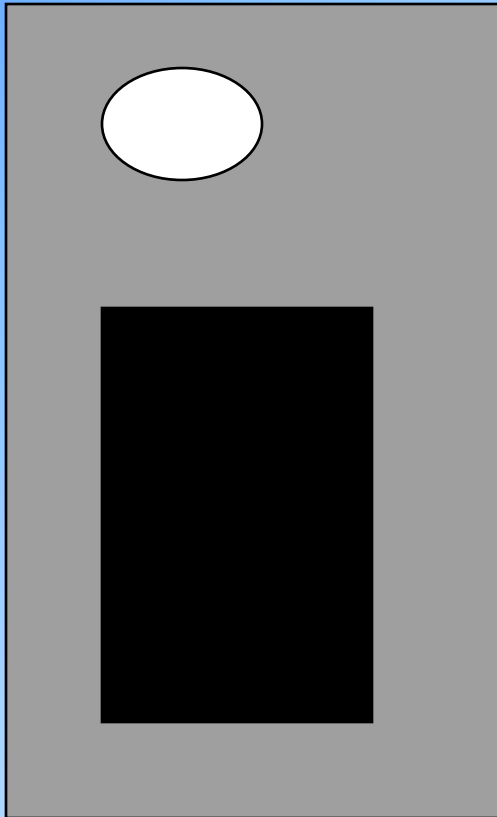


# Stormwater Billing Unit (SWBU)

- Not based on the median value of impervious area for single family detached residential property, but rather a set impervious surface size (e.g., 500 sq ft), usually smaller than what an ERU would be calculated to be
- Residential tiers are not used.
- Each property, residential and non-residential, is charged a fee based on how many billing units their property contains.
- For example, if a SWBU is set at 500 sq ft, and a property has 3,000 sq ft of impervious surface, they would be charged 6 SWBUs.



# Stormwater Utility – SWBU Basis



**= 6 SWBUs**  
(Stormwater Billing Unit)  
Say 500 square feet

**= 60 SWBUs** for Commercial



# ERU vs SWBU

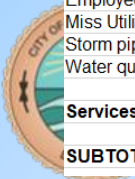
- ERU pros:
  - The most widely implemented method to establish a stormwater fee, used by more than 80% of all stormwater utilities nationally
  - Legally permitted: History of successful court defense.
  - Easily understood that an ERU represents impervious area for a typical single family residential property
- SWBU pros:
  - Allows for setting the billing unit at a smaller increment and larger range of fees
  - No need to set residential tiers to have a range of fees
  - Can be applied for both residential and commercial properties
  - Being used more often now that GIS impervious surface data as become more accurate
- Both
  - Considered fair because they are based on stormwater impact - fees are proportional to the amount of imperviousness on a property
  - Stable revenue stream year by year, transparent and in a separate fund, flexible, adequate



# Expenditures for Preliminary Rates

- City's estimated stormwater expenses for 2023-2027
- Annual Operations and Maintenance

Description	Account	Annual Salary w/Benefits or Costs	Percent Work on Stormwater	2023 Expense	2024 Expense	2025 Expense	2026 Expense	2027 Expense
<b>GENERAL PERSONNEL</b>								
<b>Personnel Subtotal</b>				<b>\$304,992</b>	<b>\$320,240</b>	<b>\$336,230</b>	<b>\$353,060</b>	<b>\$370,700</b>
<b>VEHICLES and EQUIPMENT</b>								
<b>Vehicles and Equipment Subtotal</b>				<b>\$161,820</b>	<b>\$169,900</b>	<b>\$178,390</b>	<b>\$187,320</b>	<b>\$196,690</b>
<b>CONTRACTS</b>								
Storm inlet repairs	Streets	\$20,000	100%	\$20,000	\$21,000	\$22,050	\$23,150	\$24,310
Stormwater sampling at Streets and WWTP	Streets/WWTP	\$5,000	100%	\$5,000	\$5,250	\$5,510	\$5,790	\$6,080
GIS updates	Beacon	\$15,000	100%	\$15,000	\$15,750	\$16,540	\$17,370	\$18,240
Plan reviews (stormwater components)	Bldg. & Lic.	\$2,500	100%	\$2,500	\$2,630	\$2,760	\$2,900	\$3,050
Outfall Inspections and Repairs (Stormwater)	Streets	\$25,000	100%	\$25,000	\$26,250	\$27,560	\$28,940	\$30,390
Stormceptor Maintenance	Wastewater	\$8,000	100%	\$8,000	\$8,400	\$8,820	\$9,260	\$9,720
<b>Contracts Subtotal</b>				<b>\$75,500</b>	<b>\$79,280</b>	<b>\$83,240</b>	<b>\$87,410</b>	<b>\$91,790</b>
<b>ADDITIONAL SERVICES</b>								
Public outreach and education	Administration	\$5,000	100%	\$5,000	\$5,250	\$5,510	\$5,790	\$6,080
Storm sewer system inventory and inspection update	Streets	\$5,000	100%	\$5,000	\$5,250	\$5,510	\$5,790	\$6,080
Dry weather screening	Streets	\$2,500	100%	\$2,500	\$2,630	\$2,760	\$2,900	\$3,050
BMP inspections	Streets	\$2,500	100%	\$2,500	\$2,630	\$2,760	\$2,900	\$3,050
Employee training	Streets	\$2,000	100%	\$2,000	\$2,100	\$2,210	\$2,320	\$2,440
Miss Utility markouts	Streets	\$1,000	100%	\$1,000	\$1,050	\$1,100	\$1,160	\$1,220
Storm pipe repairs (from videos)	Streets	\$10,000	100%	\$10,000	\$10,500	\$11,030	\$11,580	\$12,160
Water quality BMPs - various locations	Streets	\$20,000	100%	\$20,000	\$21,000	\$22,050	\$23,150	\$24,310
<b>Services (Additional) Subtotal</b>				<b>\$48,000</b>	<b>\$50,410</b>	<b>\$52,930</b>	<b>\$55,590</b>	<b>\$58,390</b>
<b>SUBTOTAL ANNUAL EXPENDITURES</b>				<b>\$590,312</b>	<b>\$619,830</b>	<b>\$650,790</b>	<b>\$683,380</b>	<b>\$717,570</b>



# Expenditures for Preliminary Rates

## ➤ Capital Expenses

Description	Account	Percent Work on Stormwater	2023 Expense	2024 Expense	2025 Expense	2026 Expense	2027 Expense
<b>CAPITAL EXPENSES</b>							
Storm Sewer Assessment and Repairs	Streets & Refuse	100%	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000
Storm Sewer Cleaning - Reho/Wilm/Balt Avenues	Streets & Refuse	100%		\$25,000	\$25,000	\$25,000	\$25,000
Stormwater Basin #40 Design/Construction (Kent/Cookman/Su	Streets & Refuse	50%				\$415,000	\$300,000
Baltimore and Wilmington Avenue Streetscape	Streets & Refuse	10%	\$20,000	\$70,000	\$70,000	\$70,000	\$70,000
Bayard Ave Stormwater Improvements	Streets & Refuse	100%		\$315,000	\$610,000		
Comprehensive Stormwater Management Plan	Streets & Refuse	100%		\$100,000			
Lakes Management Plan	Streets & Refuse	100%	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000
Stormwater Utility Feasibility Study	Streets & Refuse	100%	\$50,000				
<b>Capital Expenses Subtotal</b>			<b>\$280,000</b>	<b>\$720,000</b>	<b>\$915,000</b>	<b>\$720,000</b>	<b>\$605,000</b>
<b>TOTAL ALL EXPENDITURES</b>			<b>\$870,312</b>	<b>\$1,339,830</b>	<b>\$1,565,790</b>	<b>\$1,403,380</b>	<b>\$1,322,570</b>
Inflation factor	5%						



# Variables Set for Preliminary Rates

- Minimum impervious (residential and non-residential) = 100 sq ft
- Annual escalation – 5%
- Rights of way not included
- Tax-exempt parcels included
- Expenditures – all costs – annual operations and maintenance and capital expenses
- Annual credit reduction assumed to be \$10,000



# Preliminary Rates Using ERU Rate Structure – 1 Tier

- ERU is 3,000 sq ft (for all tier options)
- Non-residential properties/multi-family - ERU rounded/min 1 ERU – charged based on impervious surface (for all tier options)
- All single-family residential properties charged same rate
- Annual rate per year for residential properties to cover all expenses by year 5:
  - Year 1: \$397
  - Year 2: \$417
  - Year 3: \$438
  - Year 4: \$460
  - Year 5: \$483





# Preliminary Rates Using ERU Rate Structure – 3 Tiers

- Three tiers for single-family residential properties
- Annual rate:

Year	< =\$2,500 sq ft	>2,500 sq ft to <=3,600 sq ft	> 3,600 sq ft
2023	\$235	\$392	\$588
2024	\$247	\$412	\$617
2025	\$259	\$432	\$648
2026	\$272	\$454	\$681
2027	\$286	\$476	\$715



# Preliminary Rates Using ERU Rate Structure – 4 Tiers

- Four tiers for single-family residential properties
- Annual rate:

Year	< =\$2,500 sq ft	>2,500 sq ft to <=3,500 sq ft	> 3,500 sq ft to <=4,500 sq ft	>4,500 sq ft
2023	\$232	\$387	\$503	\$735
2024	\$244	\$406	\$528	\$772
2025	\$256	\$427	\$555	\$811
2026	\$269	\$448	\$582	\$851
2027	\$282	\$470	\$612	\$894



# Preliminary Rates Using ERU Rate Structure – Non-Residential and Multi-Family Residential Properties

- Example for a very large commercial property with 285,690 sq ft (95.2 ERUs), annual rate would be \$36,757
- Example for a large school with 189,020 sq ft (63 ERUs), annual rate would be \$24,381
- Example for large condo building or hotel with 84,155 sq ft (28 ERUs), annual rate would be \$10,875
- Example for small condo building with 4,303 sq ft (1.4 ERUs), annual rate would be \$542



# Preliminary Rates Using SWBU Rate Structure

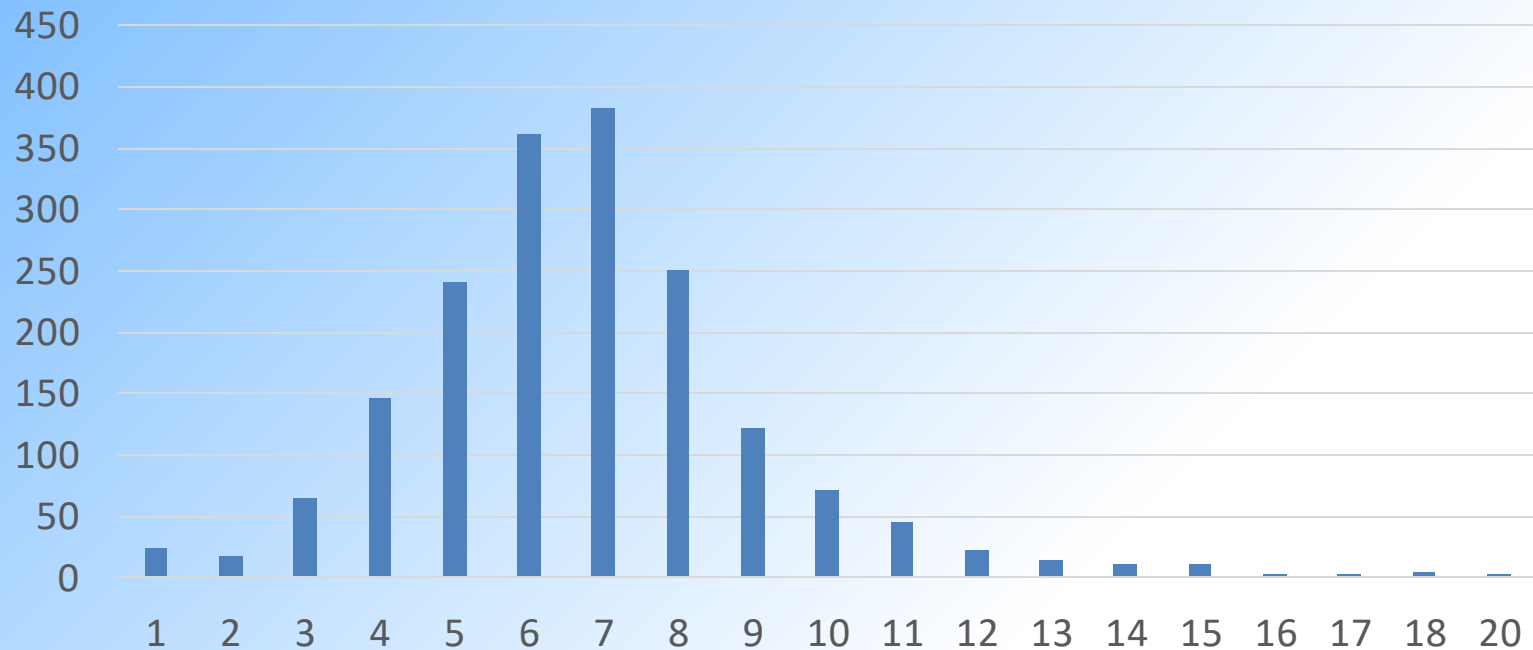
- SWBU set at 500 sq ft
- All properties charged based on impervious surface divided by SWBU

Year	SWBU rate	Annual Cost for typical residential property with 3,000 sq ft imp surface
2023	\$67	\$402
2024	\$70	\$422
2025	\$74	\$443
2026	\$78	\$465
2027	\$81	\$489



# Preliminary Rates Using SWBU Rate Structure

Number of SWBUs charged per Property vs. Number of Single-Family Residential Properties (based on 500 sq ft SWBU)



# Preliminary Rates Using SWBU Rate Structure – Non-Residential and Multi-Family Residential Properties

- Example for a very large commercial property with 285,690 sq ft (571 SWBUs), annual rate would be \$38,257
- Example for a large school with 189,020 sq ft (378 SWBUs), annual rate would be \$25,326
- Example for large condo building or hotel with 84,155 sq ft (168 SWBUs), annual rate would be \$11,256
- Example for small condo building with 4,303 sq ft (9 SWBUs), annual rate would be \$603



# Stormwater Utility Rates in Delaware

## ➤ Wilmington

- Single-family residential lots – \$4.95 to \$21.78 a month
- Non-residential rates vary depending on impervious area
- Basis is costs to maintain combined (storm and sanitary) system

## ➤ Lewes BPW\*

- Residential lots – \$6.00 a month
- Commercial – \$12.00 a month
- Industrial – \$24.00 a month
- Basis is O&M needs for the backbone of the system

\*An annual rate increase has been recommended

## ➤ Newark

- Single-family residential lots – \$2.12 to \$6.37 a month
- Non-residential rates vary depending on impervious area



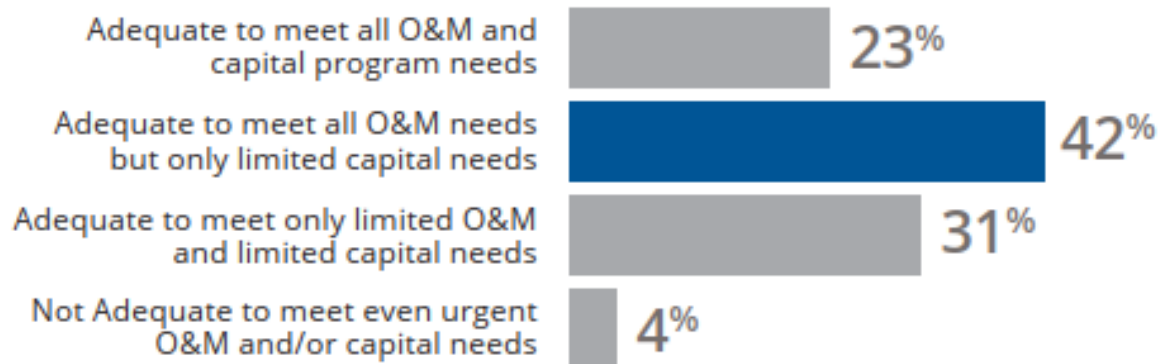


# SWU Rates in the USA

(from Black and Veatch 2021 Stormwater Utility Survey Report)

	City	Average Residential Monthly fee	Average Residential Annual Fee
Maximum	DuPont, WA	\$25	\$300
Median		\$6.08	\$72.96
Lowest	Omaha, NE	\$0.84	\$10.08

**19.** How would you rate your utility's stormwater funding to meet the utility's needs? (Select one)



# Timeline and Next Steps

- Expenditures estimates should be updated before determining final rates, relook at O&M costs and planned capital expenses
- Develop report
  - Document decisions made
  - Provide recommendations
  - Draft recommendations presented at December meeting
  - Draft report distributed to Task Force by end of January
  - Finalize report in February 2023
- Present recommendations to Mayor and Board of Commissioners – target March workshop
- Year for implementation - develop administration process, credit program, appeals process, and adopt change in code
- Target to implement SWU by 4/1/2024 (start of FY25)



# Meeting Goals and Objectives

- Understand Equivalent Runoff Unit (ERU) vs. Stormwater Billing Unit (SWBU) rate structures
- Understand expenditures used for preliminary rates
- Review preliminary rates
- Decide on rate structure to use
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# Future Task Force Meetings

- December– development of recommendations to the Mayor and Commissioners



# Discussion

