

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 ft²
 - 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



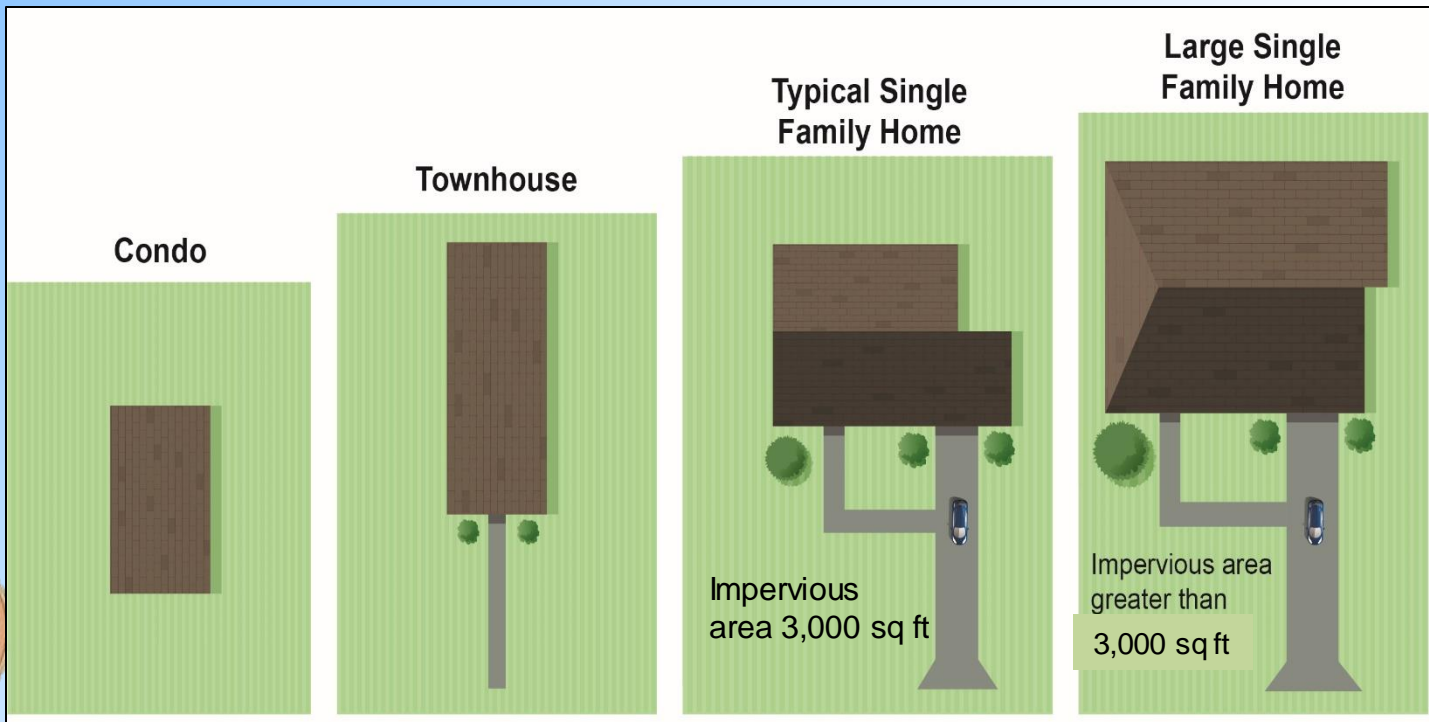
ERU and SWBU Rate Structures

- General overview of each
- Advantages of both rate structures



Equivalent Runoff Unit (ERU) Method

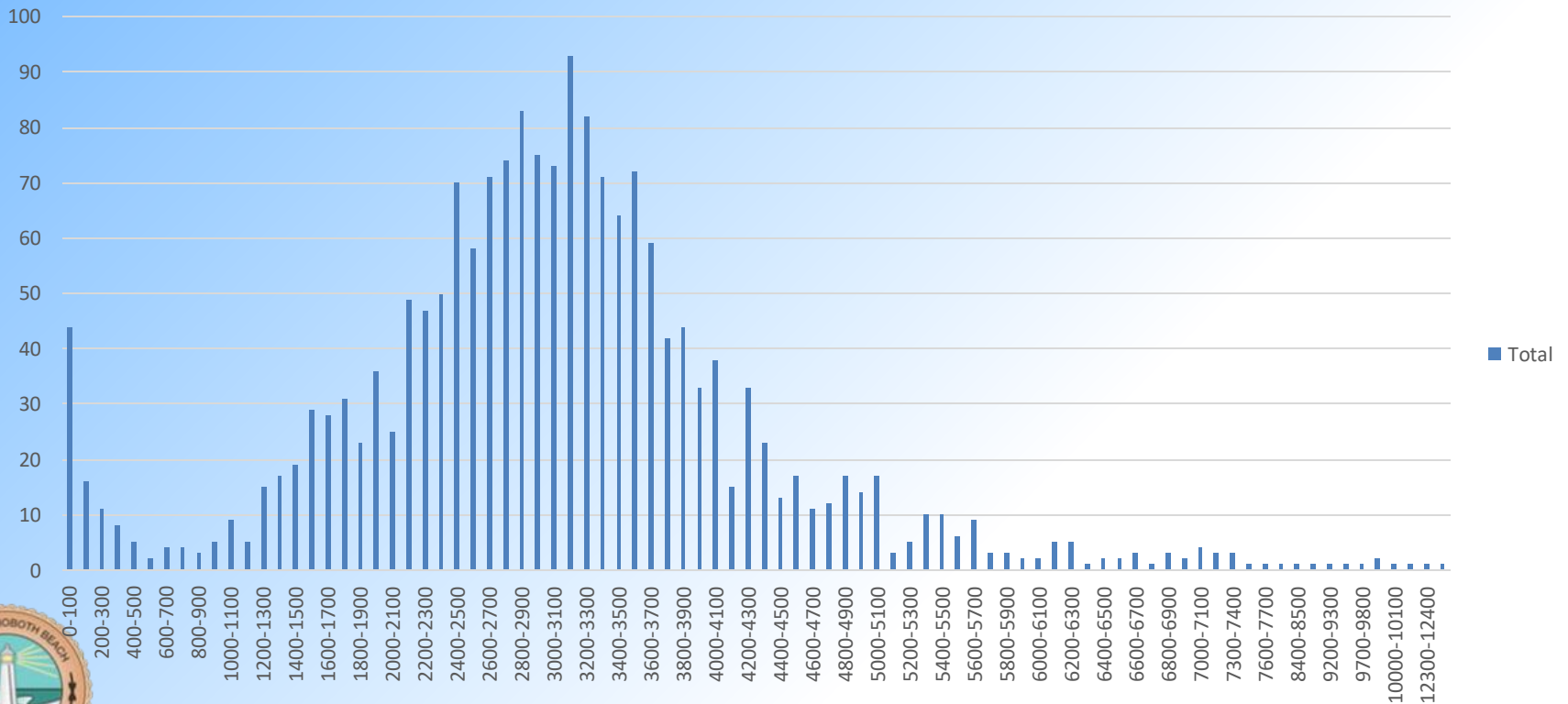
- Typically derived from the mean impervious surface area of a single-family residential detached property
- A fee is set for the ERU, and residential tiers can be applied to adjust the fee to be fairer.
- Non-residential properties charged based on total impervious surface area



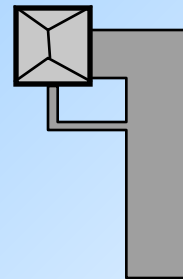
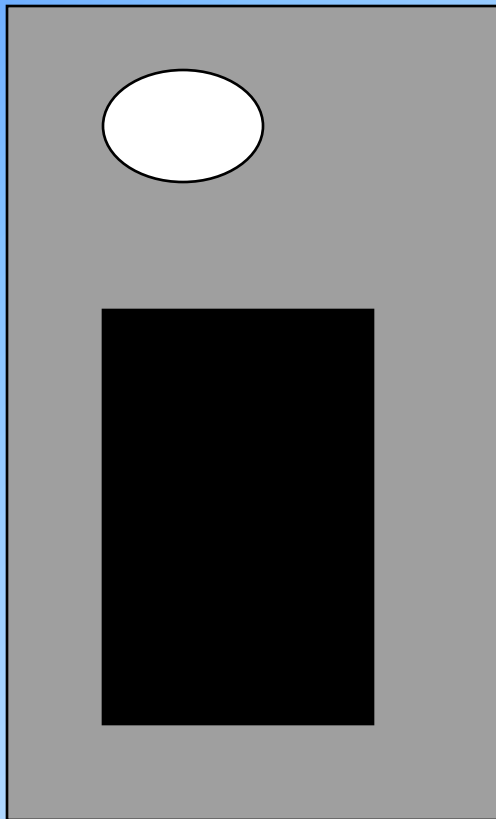
ERU for City of Rehoboth Beach

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

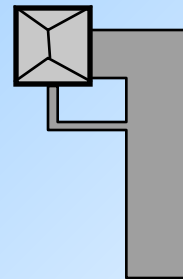
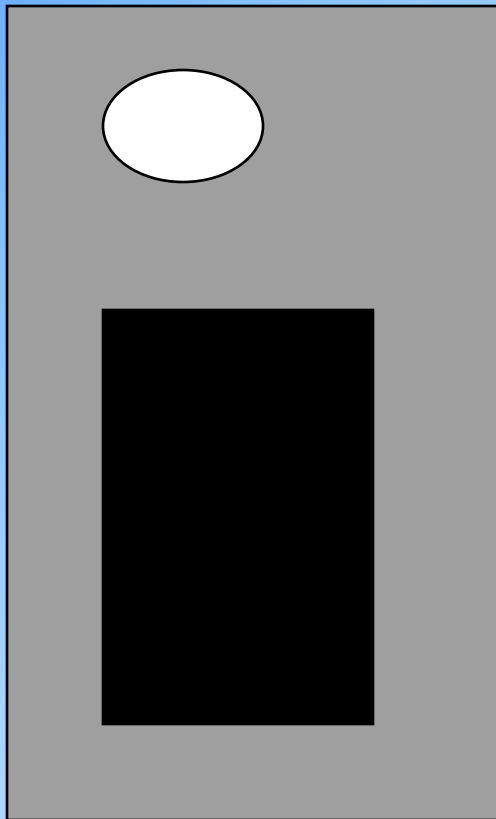


Stormwater Billing Unit (SWBU)

- 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

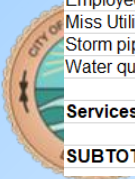
- ERU pros:
 - The most widely implemented method to establish a stormwater fee, used by more than 80% of all stormwater utilities nationally
 - Legally permitted: History of successful court defense.
 - Easily understood that an ERU represents impervious area for a typical single family residential 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
GENERAL PERSONNEL								
Personnel Subtotal				\$304,992	\$320,240	\$336,230	\$353,060	\$370,700
VEHICLES and EQUIPMENT								
Vehicles and Equipment Subtotal				\$161,820	\$169,900	\$178,390	\$187,320	\$196,690
CONTRACTS								
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
Contracts Subtotal				\$75,500	\$79,280	\$83,240	\$87,410	\$91,790
ADDITIONAL SERVICES								
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
Services (Additional) Subtotal				\$48,000	\$50,410	\$52,930	\$55,590	\$58,390
SUBTOTAL ANNUAL EXPENDITURES				\$590,312	\$619,830	\$650,790	\$683,380	\$717,570



Expenditures for Preliminary Rates

➤ Capital Expenses

Description	Account	Percent Work on Stormwater	2023 Expense	2024 Expense	2025 Expense	2026 Expense	2027 Expense
CAPITAL EXPENSES							
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				
Capital Expenses Subtotal			\$280,000	\$720,000	\$915,000	\$720,000	\$605,000
TOTAL ALL EXPENDITURES			\$870,312	\$1,339,830	\$1,565,790	\$1,403,380	\$1,322,570
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

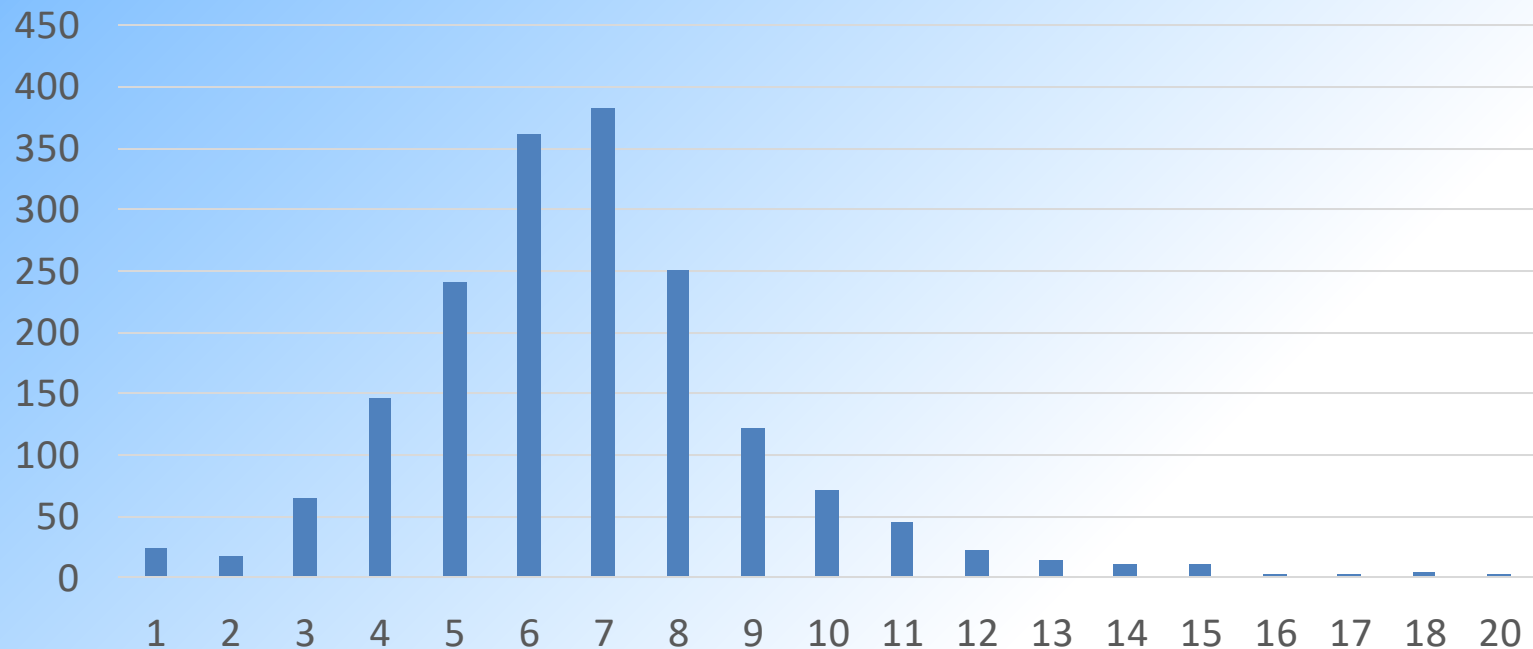
- SWBU set at 500 sq ft
- All properties charged based on impervious surface divided by SWBU

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

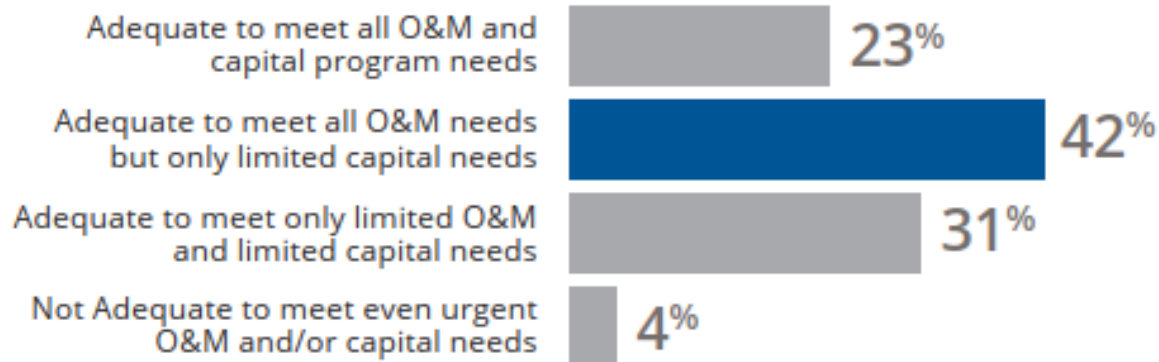


SWU Rates in the USA

(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)



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- Understand expenditures used for preliminary rates
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Future Task Force Meetings

- December– development of recommendations to the Mayor and Commissioners



Discussion

