

Bristol Stormwater Management Steering Committee



*“Municipal Stormwater Management Enterprise Fund
Feasibility Study”*

Meeting #2

January 19, 2016

TOWN OF BRISTOL

R.I. Dept. of Environmental Management
Horsley Witten Group
AMEC Foster Wheeler
Blue Sky Engineering



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MEETING AGENDA

January 19, 2016



- 6:00** **Welcome and Recap from First Meeting
(with refreshments)**
- 6:15** **Stormwater Program Priorities, Actual and Future
Estimated Costs, Regulatory Requirements &
Enterprise Fund Basics**
- BREAK**
- 6:50** **How might a SMEF be structured for Bristol?
(Revenue Distribution and Fee versus tax
considerations)**
- 7:15** **Recap and Discussion**
- BREAK**
- 7:50** **Preliminary Action Plan**
- 8:05** **Next Steps**
- 8:15** **Adjourn**

Voting from First Meeting



- Members were asked to vote on their top three stormwater issues of concerns. The results were as follows:
 - **Aging infrastructure (14 votes)**
 - **Chronic flooding (7 votes)**
 - **Infrastructure maintenance (7 votes)**
 - Wastewater issues (3 votes)
 - Ecological concerns (2 votes)
 - Development pressure (1 vote)
 - Preservation of property values (1 vote)

Consensus Opinions from First Meeting



- Bristol has critical unmet stormwater management needs.
- The Town should consider additional/alternative funding sources for stormwater management.



Key Discussion Points – First Meeting



- The Steering Committee members need to agree on priorities.
- The Steering Committee must be equipped to convey and discuss key issues and priorities with the public and their constituencies.
- Any new funding mechanism for stormwater must be clearly defined and equitable.
- Question posed: What opportunities do we forego by “not” proceeding timely to address stormwater needs?

Topics to address tonight



- Future stormwater program priorities and costs: What is the desired level of service?
- Data and financial analysis for a Stormwater Management Enterprise Fund (SMEF).
- What will be the costs to property owners, residents and businesses?
- Can a case be made for creating a SMEF?
- What are the consequences of not funding stormwater?
- What are the views of Committee members?
- What are the typical next steps for creating a SMEF?

Chronic Flooding Problems



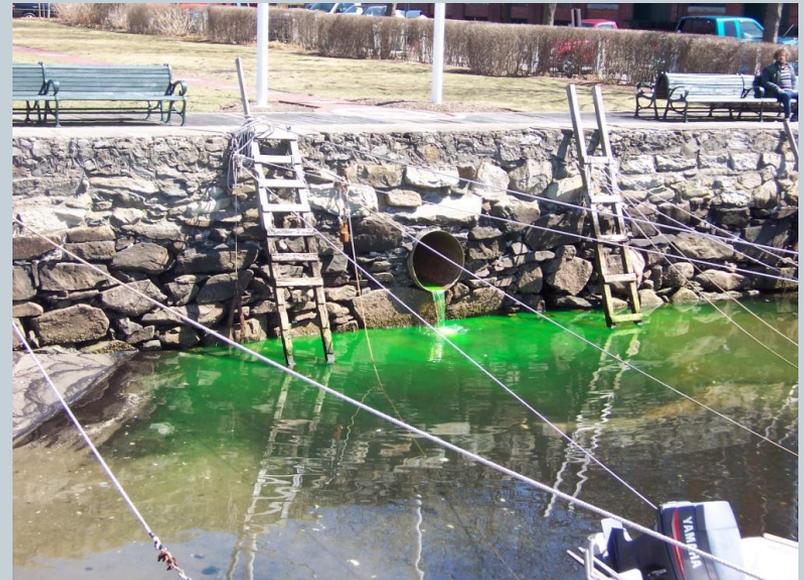
- Streets & private property (safety)
- Silver Creek
- Tanyard Brook



Sewage and Water Quality Violations

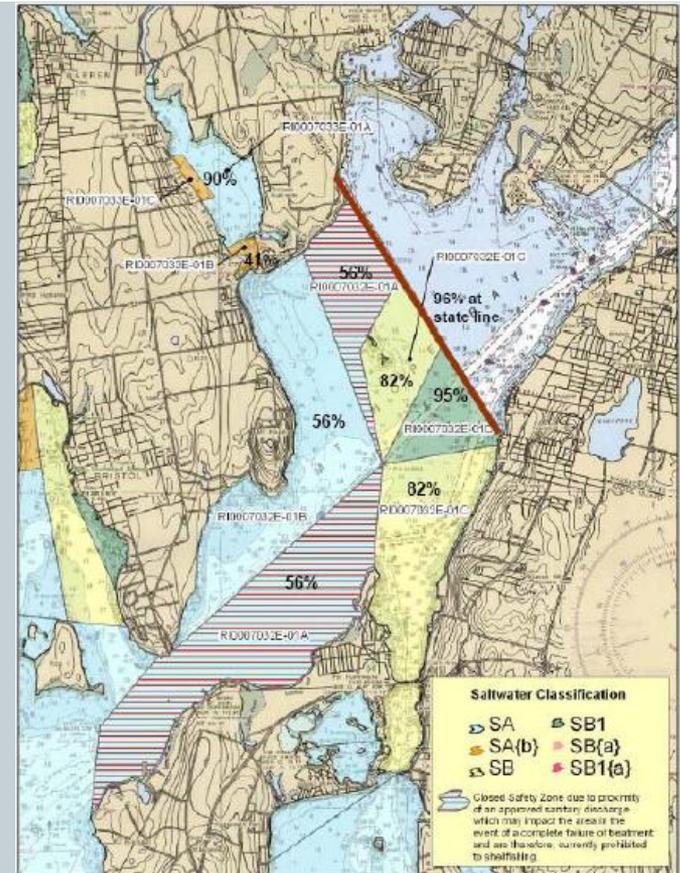


- **Stormwater induced WWTF Bypasses & Sewer Overflows**
 - Overland flooding of WWTF
 - Wet weather causes high flows:
 - ✦ Sewage system overflows (SSO)
 - ✦ WWTF to be overwhelmed
- **Sewage Inflow**
 - Infiltration and Inflow
 - ✦ Sump pumps
 - ✦ Downspouts
 - ✦ Cracked pipes and leaky joints
- **Water Quality Violations**
 - Shellfish closures
 - Outfall discharges
- **Overflows in homes**



Other Water Quality Problems

- Beach closures (historically)
- Shellfish closures
- Wet weather bacteria-related discharges:
 - Bristol Harbor
 - Walker Cove
 - Silver Creek
 - Kickemuit River
 - Mt. Hope Bay
- Localized impacts of individual stormwater discharges



Planned Sanitary Sewer Work (next 2-3 yrs)



- Slip-lining deteriorated sewer lines
 - Hope Street north of downtown
 - Ferry Road
 - Near Tanyard Brook, South of DPW
- Pump station rehabilitation
 - Silver Creek PS
 - Constitution PS
- WPF flood protection drainage project
- Replacement of deteriorated pipes
 - Fernwood Dr. and Sowams Rd.



Stormwater Program Priorities



What Town staff have identified in the near term:

- More timely fieldwork/investigations/follow-up
- Coordination with RIDOT
- Implementation of new ordinance, notification/review/inspection
- Routine, comprehensive catch basin cleaning
- Expand scheduled maintenance and inspection
- Mt. Hope Bay/Kickemuit River TMDL implementation
- Improved public education & outreach
- Improved public information/GIS access and reporting

Actual Current Stormwater Program Costs*



• Public involvement & outreach	1,500
• Illicit discharge detection & elimination	11,000
• Pre- and Post Construction Site Stormwater Mgmt.	16,000
• Pollution Prevention – sweeping and catch basin cleaning	270,500
• GIS mapping of stormwater structures	15,000
• Administration	35,000
• MS4 annual report & TMDL program	6,500
• DPW stormwater operations and materials	73,500
• Contracted services (consulting, contractor, engineering)	160,000
• Major drainage projects – completed or ongoing	<u>\$ 290,000</u>
Total	\$ 879,000

*Annual Cost



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Future Stormwater Program Costs

Estimated Needs*



• Public involvement & outreach	6,000
• Illicit discharge detection & elimination	20,000
• Pre- and Post Construction Site Stormwater Mgmt.	35,000
• Pollution Prevention – sweeping and catch basin cleaning	350,000
• GIS mapping of stormwater structures	20,000
• Administration	35,000
• MS4 annual report & TMDL program	21,500
• DPW stormwater operations and materials	95,000
• Contracted services (consulting, contractor, engineering)	175,000
• Major drainage projects	<u>\$ 600,000</u>
Total	\$ 1,357,000

*Annual Cost

Note: based on existing regulatory requirements and known needs.



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Future Stormwater Program Costs Under Proposed MS4 Permit



Estimated Cost = \$1,696,875 (annual)

- RI MS4 permit expected to mirror draft Federal MS4 permits for MA and NH.
- Additional requirements for most of the Six Minimum Control measures under the current MS4 permit, plus specific requirements to address impaired waters.
- Assume 25% increase in costs from desired program levels.
- However, too many unknowns to be certain at this time.



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Re-Cap and Discussion



- Questions and feedback . . .



Available Funding Options



Resources	User Fee	Volunteers	Fines
Impact Fee	Bonding	General Fund	Tax Assessment
Shared Costs	Inspection Fees	Grants	Special Sales Tax

Stormwater programs can be funded through a combination of options, but not all options meet the funding needs.

What is a Stormwater Enterprise Fund?



- A stormwater enterprise fund, also known as a Stormwater Utility or Stormwater Management District (SMD) in Rhode Island is a "stand-alone" funding mechanism that derives revenue through fees for stormwater services.
- Pays for the operation, construction and maintenance of catch basins, drainage pipes, street cleaning and treatment systems, and administration and management stormwater controls and discharges.
- The funds generated go into a separate account creating a consistent and reliable source of funding for stormwater services.

How does a Stormwater Enterprise Fund Work?



- Fees assigned to a parcel for services provided
- Fee is proportional to the stormwater burden on the stormwater system/program
- More impervious areas...
...more stormwater runoff...
...larger burden on the system...
...larger user fee
- Therefore, even tax-exempt properties like schools contribute
- But, RI enabling statute exempts state properties
- Not a “Rain Tax” – Value of the Property is Not Considered

Key Advantages of a Stormwater Enterprise Fund

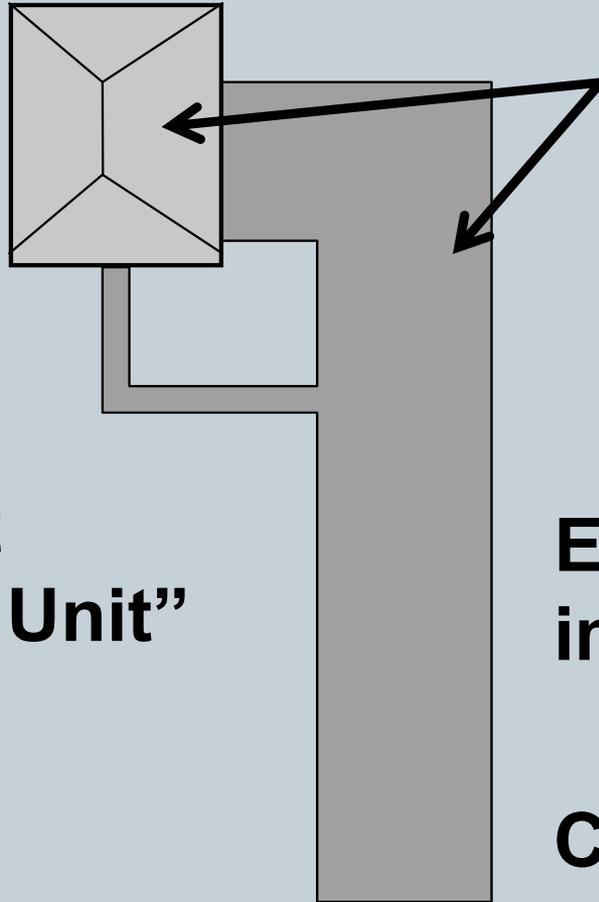


- **It is Stable** because it is not as dependent on the vagaries of the annual budgetary process as taxes are.
- **It is Adequate** because a typical stormwater fee is based on a well thought out stormwater program to meet the needs and demands of the community, as well as other program drivers (e.g., water quality, regulations).
- **It is Flexible** because fees can be structured in multiple ways, and the program can be managed to fund activities based on changing priorities and needs.
- **It is Equitable** because the cost is borne by the user on the basis of demand placed on the drainage system.

How a Fee is Typically Calculated

**Average
Residential
Property**

**Equals 1.0
“Equivalent
Residential Unit”
(ERU)**

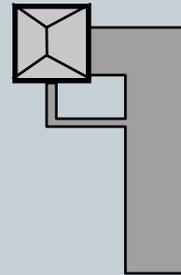


Impervious areas

**ERU = 3,250 sq.ft.
impervious area**

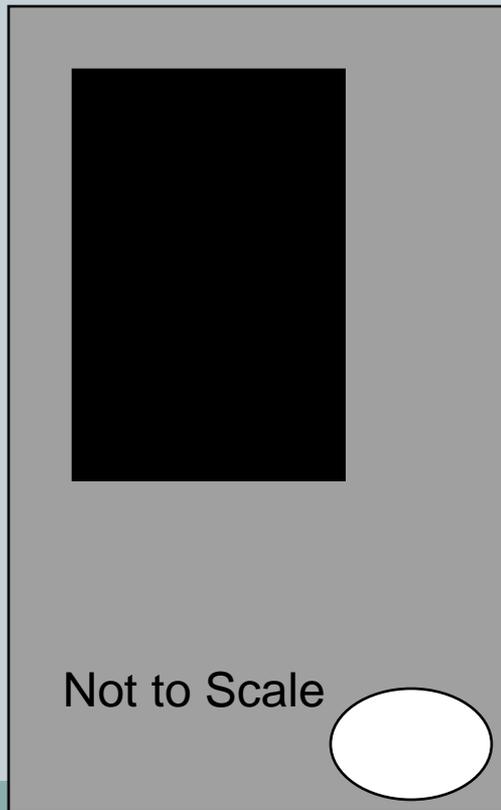
**Can also use a billing
unit of 500, 1000 sf, etc.**

How a Fee is Typically Calculated



= 1 ERU

= 40 ERUs, less credit



Rate structures can reflect a number of different things...not just impervious area

Popular Rate Methodologies



- Impervious Area (IA) (55%)
- Impervious Area and Gross Area (29%)
- Gross Area/Intensity of Development (10%)
- Others (6%)
 - water meter size, flat rates, zoning class

“The fee system shall be reasonable and equitable so that each contributor of runoff to the system shall pay to the extent to which runoff is contributed.”

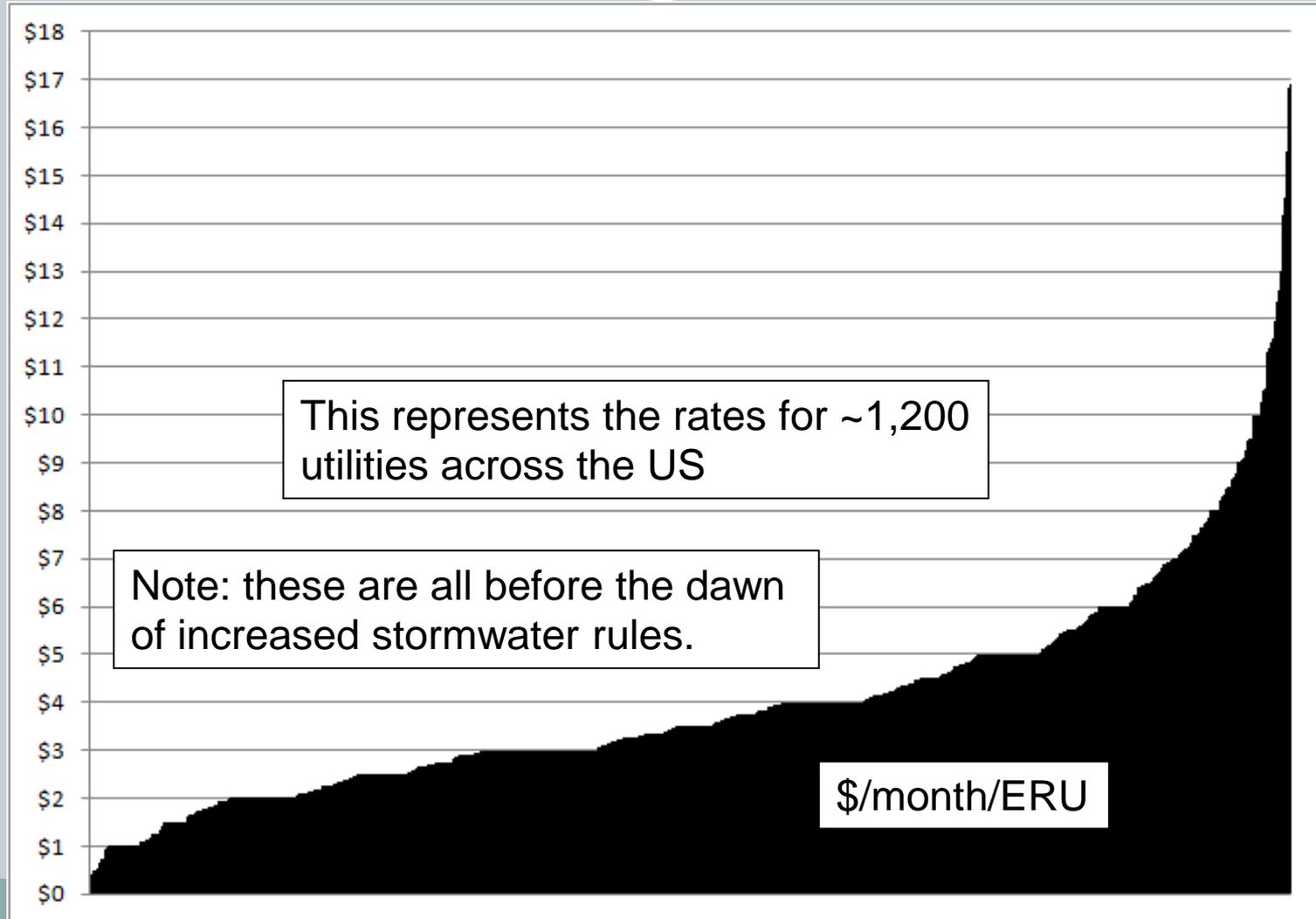


Stormwater Credits – Two Bases



1. I reduce my impact – the IA measure does not reflect my true impact
 - Often tied to meeting design criteria
 - % of fee can be subjective
2. I reduce the town's cost through my private efforts
 - Take on a public responsibility such as education or maintenance

Existing Stormwater Enterprise Funds



Example Stormwater Utilities in NE



- **South Burlington, VT**
 - Population 18,612
 - Annual Budget \$2,440,347
 - Funds all stormwater activities, plus flood control and green infrastructure projects
 - High level of service
- **Northampton, MA**
 - Population 28,592
 - Annual Budget \$1,980,056
 - Funds nearly all stormwater activities, water quality projects, and maintenance of flood control systems (levees)
 - Relatively high level of service
- **Bristol, RI (for comparison only)**
 - Population 22,954
 - Annual Budget \$1,357,000

Stormwater Credits - Overview



- Are a legal “requirement”
- Normally little revenue impact (<5%)
- Offers a carrot
- Credits are earned, not given, and not an “exemption” or “incentive”
- Ongoing recognition of ongoing private investment for a public good

10 Minute Break



Mt. Hope High School Property
Silver Creek Watershed

What does a SMEF for Bristol Look Like?



Feasibility Study Steps and Initial Results:

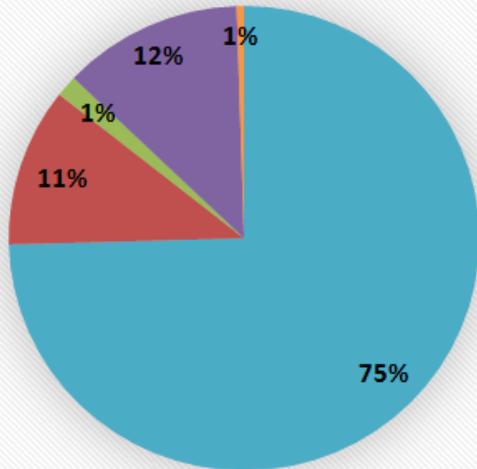
- Evaluation of properties and impervious area.
- Analysis of billing units.
- Future program cost and revenue need.
- Revenue distribution by property type.
- Comparison of fees versus tax impact on property types.

This is a preliminary analysis for illustration purposes with lots of assumptions that need to be vetted if a SMEF is developed.

Analysis of Properties and Impervious Area

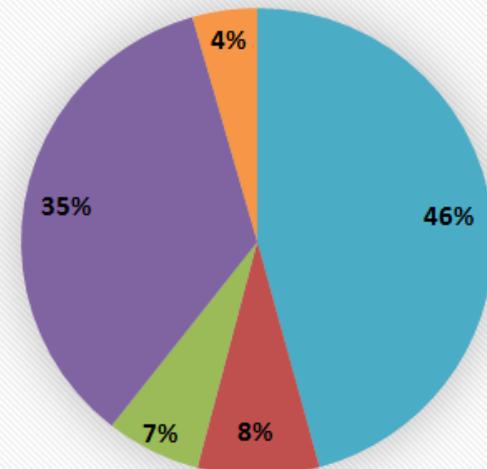


Property Type Distribution



■ Single-Family Residential ■ Multi-Family Residential ■ Condo / Shared Area
■ Non-Residential ■ SW Fee Exempt*

IA Distribution



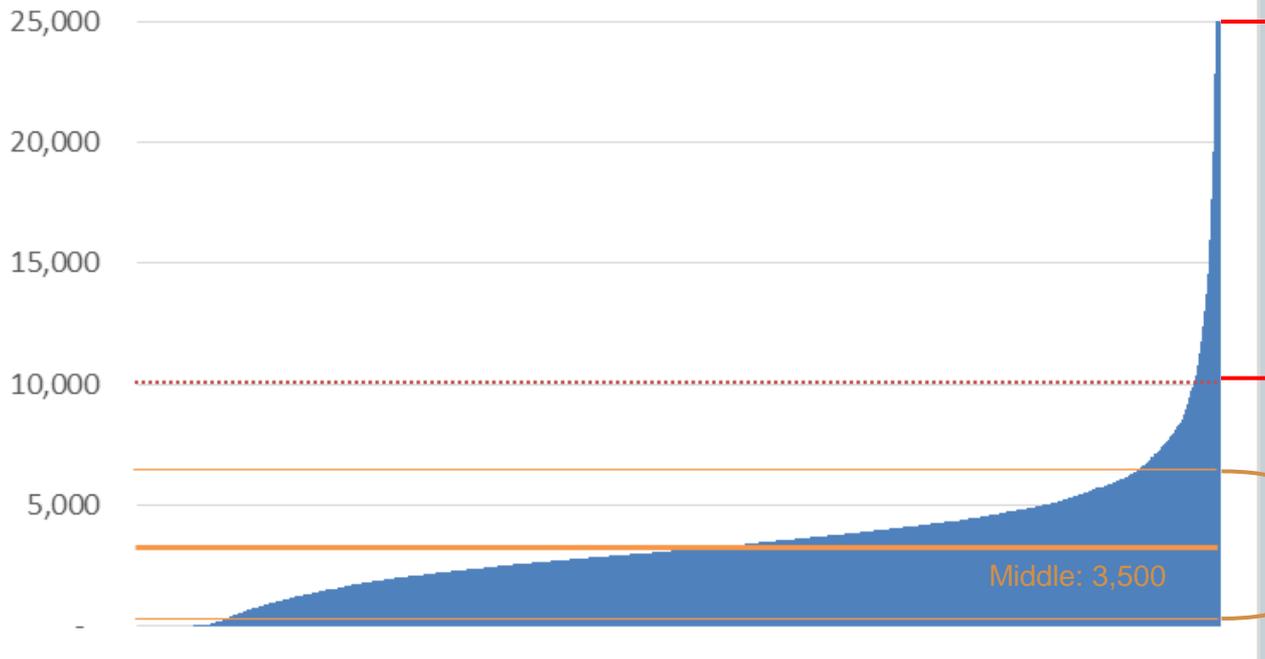
■ Single-Family Residential ■ Multi-Family Residential ■ Condo / Shared Area
■ Non-Residential ■ SW Fee Exempt*

Single-family residential properties account for the majority of properties, but not the majority of impervious area.

Analysis of Billing Units (ERUs)



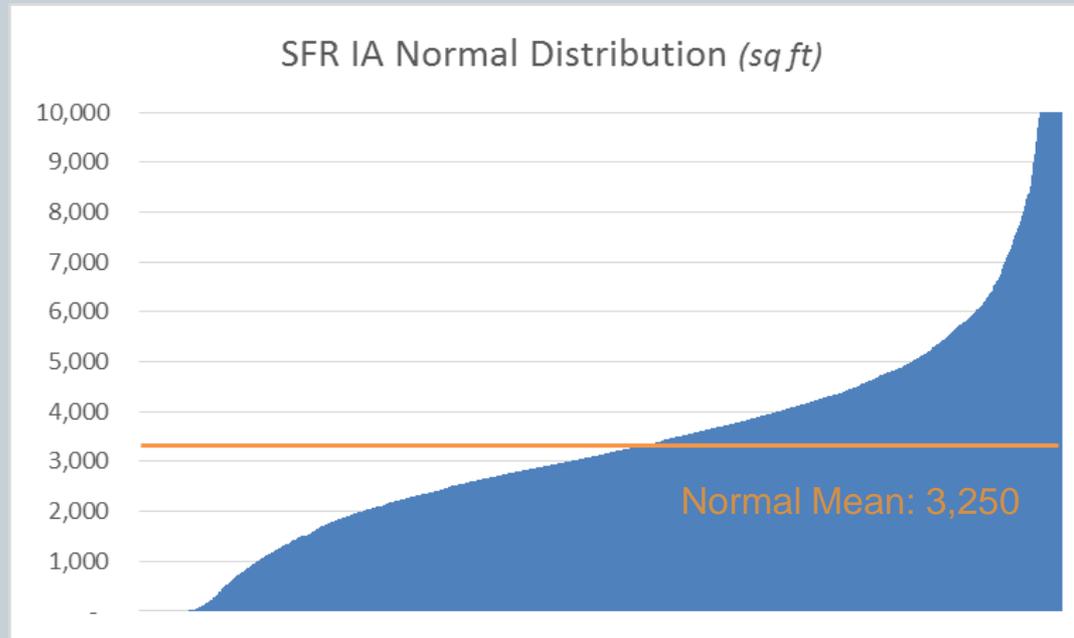
SFR IA Distribution (sq ft)



More than 2 standard deviations from the 'normal' amount of IA (these huge properties are statistical "outliers"); upper end of range is more than 76,000 sq ft of IA

This is the 'normal' range of data, within one standard deviation from the middle.

Analysis of Billing Units (ERUs)

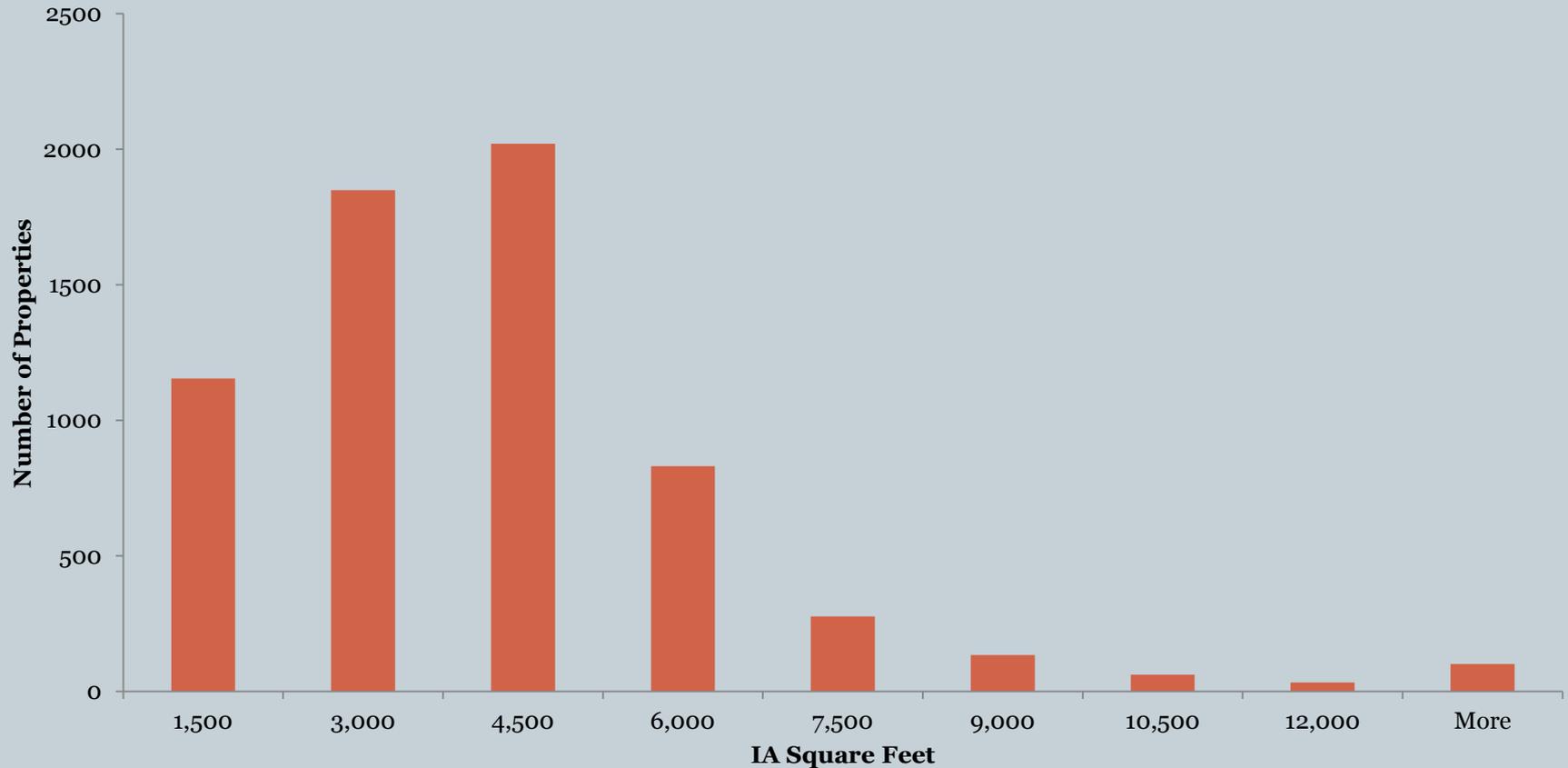


An 'ERU' is typically calculated from the median of normalized (*within 1 standard deviation*) SFR IA data. For Bristol, the ERU would be 3,250 square feet.

Analysis of Billing Units (ERUs)



Impervious Histogram - SFR Properties



Analysis of Alternative Billing Units (results)



Billing Units

Property Type	Count	IA SqFt	ERU 3,250 SqFt	500 SqFt	1,000 SqFt
Single-Family Residential	6,462	22,651,333	5,943	45,300	22,644
Multi-Family Residential	957	4,124,721	1,293	8,252	4,147
Condo / Shared Area	129	3,212,317	988	6,421	3,216
Non-Residential	1,073	17,320,861	5,315	34,635	17,314
SW Fee Exempt	44	2,194,499	(675)	(4,389)	(2,197)
Total	8,665	49,503,731	12,864	90,219	45,124

Future Program Cost and Revenue Need



Future Stormwater Program Costs, Estimated Needs

Future Program		\$ 1,357,000
Credits	2%	\$ 27,140
Bad Debt	3%	\$ 40,710
Billing & Admin	1%	\$ 13,570
Reserve	5%	\$ 67,850
Revenue Requirement		\$ 1,506,270

\$/ERU/year = \$117.09

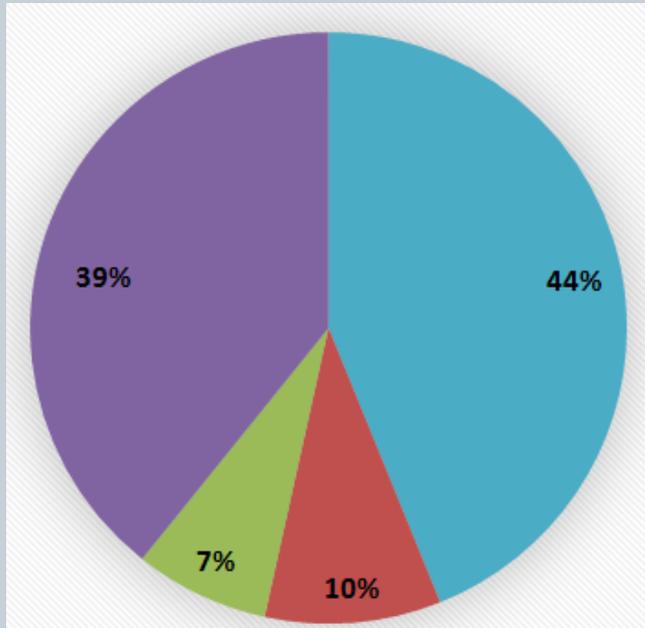
\$/1,000 sqft/year = \$33.38

\$/500 sqft/year = \$16.70

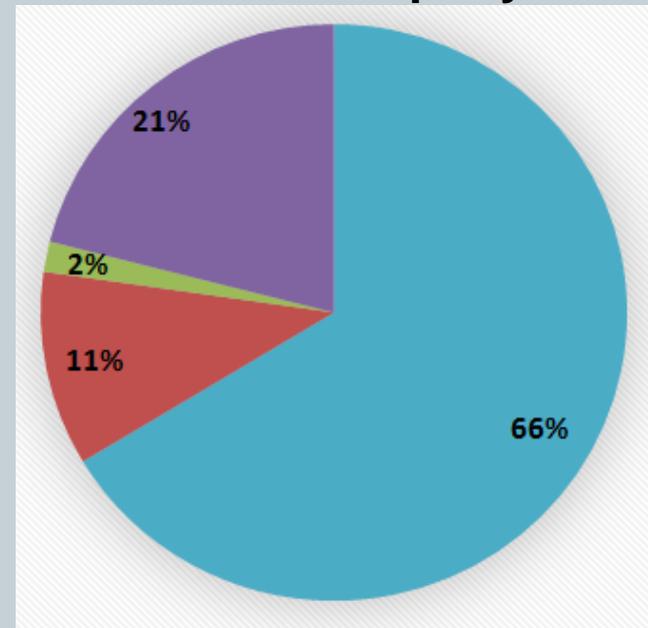
Note: this is a gross analysis of annual revenue requirements and further financial evaluation is needed to finalize the program revenue requirement.

Revenue Distribution

ERU Basis



SW Based on Property Value



■ Single-Family Residential
 ■ Multi-Family Residential
 ■ Condo / Shared Area
 ■ Non-Residential

Single-Family Residential Property	Avg. Annual Cost
ERU 3,250	\$ 117.09
SW Based on Property Value	\$ 157.42
Non Single-Family Residential Property	Avg. Annual Cost
ERU 3,250	\$ 1,065.66
SW Based on Property Value	\$ 331.60

Note that NSFR properties vary too widely for averages to be representative; see example property analysis.

Fee versus Tax Example Properties



Commercial Property Example

Note: for illustration purposes only to show the difference in a fee versus tax approach. Actual values will vary based on final policy decisions, budget and financial evaluation.

MSPARCELID	IA_SqFt	Fee_ERU	SW_Tax
94-25	17,609	\$585.45	\$196.66
94-26	30,606	\$1,053.81	\$276.80
94-27	21,135	\$819.63	\$243.60
94-29	33,724	\$1,170.90	\$72.78
94-49	0	\$0.00	\$58.89

Fee versus Tax Example Properties



Commercial Property Example

Note: for illustration purposes only to show the difference in a fee versus tax approach. Actual values will vary based on final policy decisions, budget and financial evaluation.

MSPARCELID	IA_SqFt	Fee_ERU	SW_Tax
9-50	74,080	\$2,693.07	\$5,897.01

Fee versus Tax Example Properties

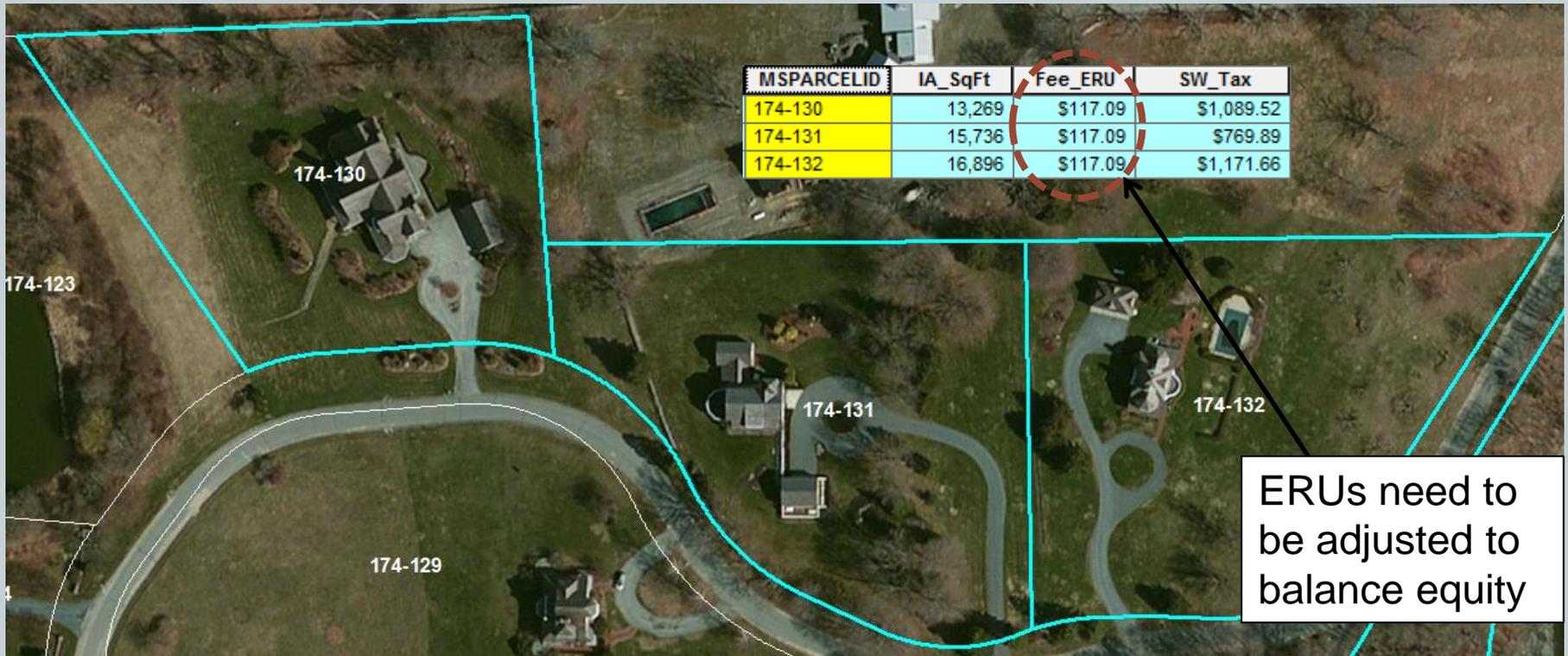


Single-Family Residential Property Example

Note: for illustration purposes only to show the difference in a fee versus tax approach. Actual values will vary based on final policy decisions, budget and financial evaluation.

MSPARCELID	IA_SqFt	Fee_ERU	SW_Tax
80-66	2,262	\$117.09	\$140.32
80-68	2,582	\$117.09	\$142.32
80-70	2,973	\$117.09	\$144.65
80-71	2,616	\$117.09	\$142.59
80-72	2,477	\$117.09	\$135.07

Fee versus Tax Example Properties



Single-Family Residential Property Example

Note: for illustration purposes only to show the difference in a fee versus tax approach. Actual values will vary based on final policy decisions, budget and financial evaluation.

Summary of the Two Main Options



	General Funds	User-Fee
Who Pays?	Taxed Properties	Everyone Pays
Basis of Contribution (\$)	Property Value	Contribution to Runoff
Credits for On-site Management	None	Consideration of Treatment

- Everyone pays something in the end
- Fees may provide a more equitable or flexible distribution of cost than tax revenue
- Individual homeowners pay less with fees vs. taxes

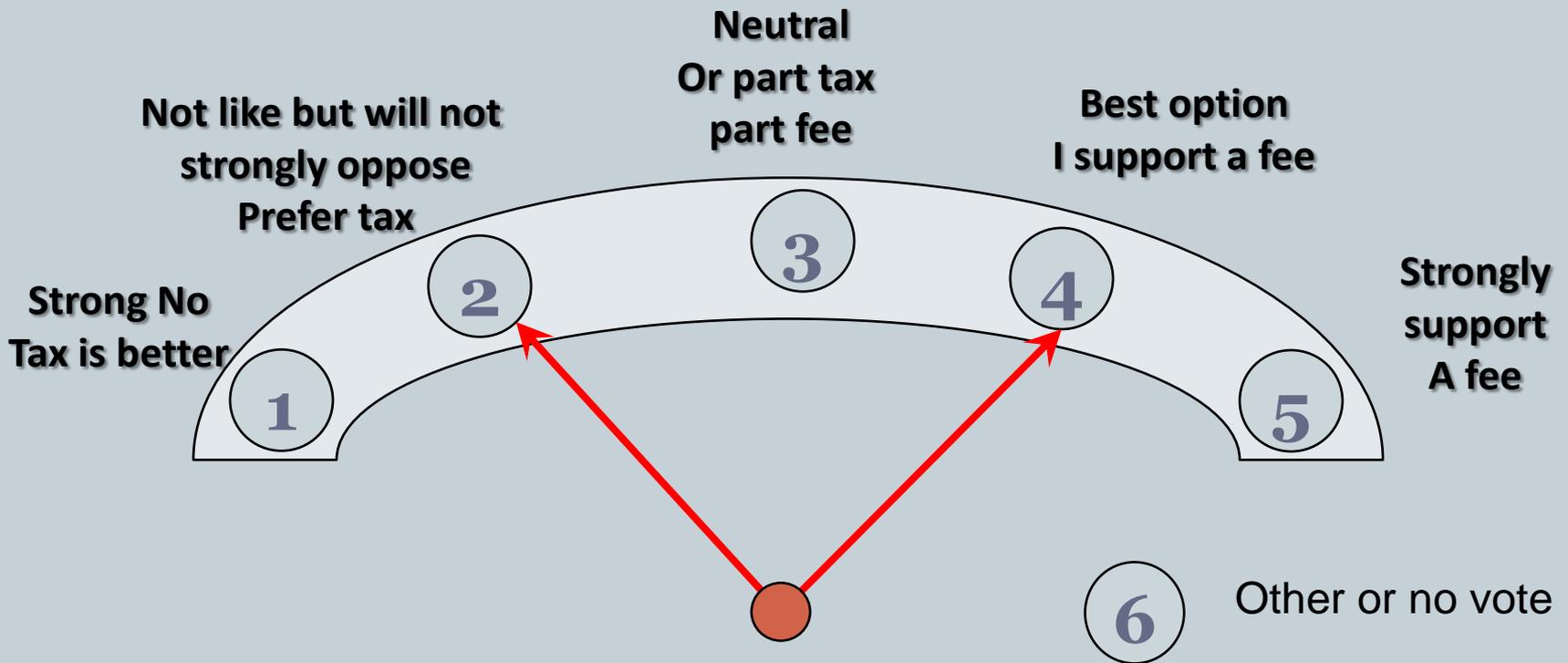
Is there a Compelling Case for a SMEF?



- I think it might be a good idea because...
- I think it is not a good idea because...



If we agree we need to improve the stormwater program
What is your comfort level with a fee?



Re-Cap and Discussion



- Questions and feedback . . .

10 Minute Break



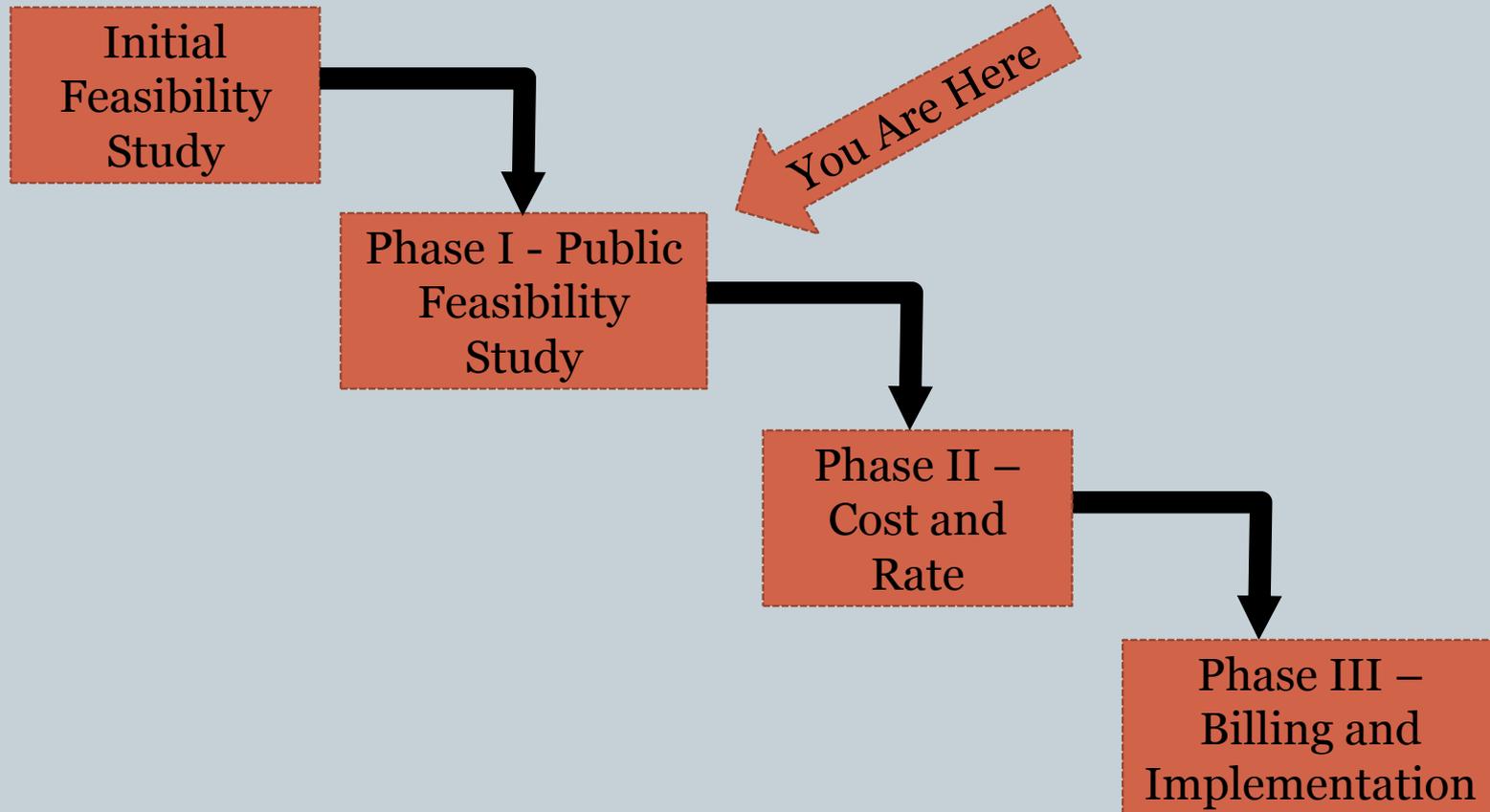
Preliminary Action Plan for a SMEF



It is best to use a phased process for implementation



Overall Path Forward



Phase II – Costs and Rates



- **Cost/Program**
 - Update costs & level of service
 - Program 5-year plan
- **Funding Approach & Data**
 - Funding policies
 - Initial rate structure & credits
 - Billing policies
 - Public Involvement Plan
- **Final Cost and Rate Structure**
 - Functional organization
 - Administration & staffing
 - Credit manual
 - Final rate study

Phase III – Billing and Implementation



- **Fee Implementation**
 - Ordinance adoption
 - Implementation campaign
 - Billing trial run
 - Customer service
 - Internal management policy development
 - 1-on-1 staff training/on-call support

Questions & Comments



- What's missing?
- What else do you need for information?
- Other considerations

Next Steps



- **Before next Steering Committee meeting:**
 - Town Council Input
 - Draft Report for Steering Committee Review
- **Meeting schedule (tentative)**
 - Town Council – mid February
 - Steering Committee – March 22nd
 - Town Council – mid April