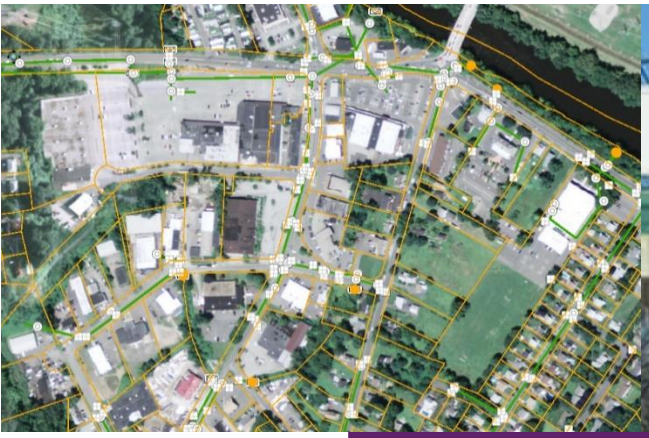
Town of Agawam
Stormwater System Assessment and Utility/Fee Planning Project

Citizen Advisory Task Force Meeting #4



October 11, 2017

Agenda

6:00 - 6:10p: **Review of Meeting #3**

6:10 - 6:45p: **Public Engagement Update**
- Summary and feedback from September 25th workshop
- Update on ongoing and future activities

6:45 - 6:55p: **Break**

6:55 - 7:25p: **Stormwater Utility Funding Approach and Policies**
- Review of rate methodologies and billing units
- Billing methods
- Feedback

7:25 - 7:55p: **Stormwater Utility Credits**
- Types and amounts of credits
- Examples
- Feedback

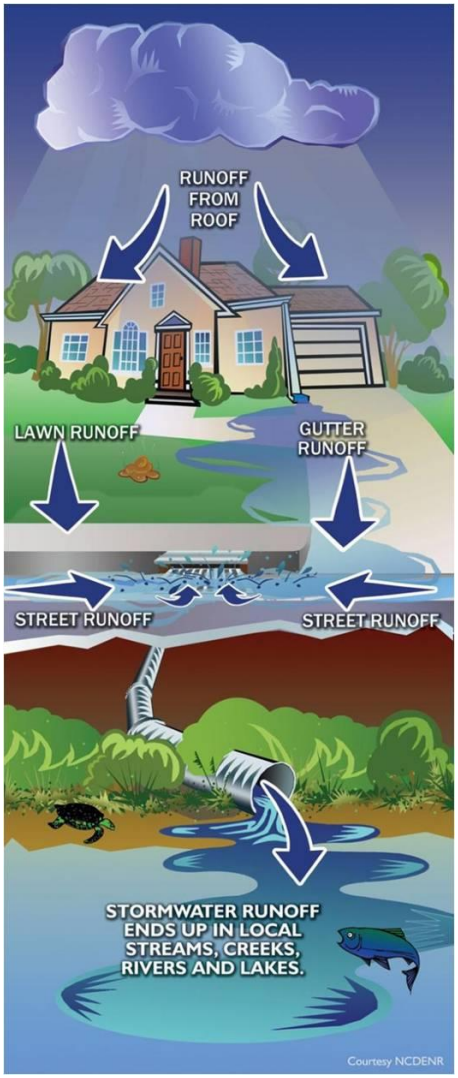
7:55 - 8:00p: **Next Steps**

Review of Task Force Meeting #3

Summary of Key Issues Covered

- Stormwater Utilities
  - Introduction and funding approach
- Agawam Data Analysis
  - Impervious cover and parcel analysis
  - Stormwater billing units (ERU and other options)
- Preliminary Funding Analysis
  - Revenue need and level of service
  - Rate structure, initial rates, and sample properties

Stormwater Utilities
Rational Nexus



How does it work?

- Fees assigned to a parcel for <u>services</u> 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
- Not a “Rain Tax” – value of the property is <u>not</u> considered

Stormwater Utilities
Key Benefits

Key Advantages

- **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 more Equitable** than most other funding sources because the cost is borne by the user on the basis of demand placed on the drainage system.

Massachusetts

Sample Stormwater Utility Rates

Average Residential Stormwater Fees

- **Reading** (pop. 24,747)
  - $3.33/month
  - $400,000 annual revenue
- **Newton** (pop. 85,146)
  - $6.25/month
  - $1,750,000 annual revenue
- **Northampton** (pop. 28,540)
  - $7.50/month
  - $1,940,000 annual revenue
- **Chicopee** (pop. 55,298)
  - $8.33/month
  - $1M annual revenue

Notes:

- Programs, fees and revenue can vary widely.
- Revenue potential also varies based on rate structure and rate payers (e.g., residential versus non-residential make-up).
- Fees are for average residential properties – some rate structures include increasing fees for larger residential properties, such as Northampton.

Agawam Data Analysis

Preliminary Stormwater Rate Structure Options

The data analysis confirms that there is sufficient, quality data to support an impervious area rate methodology. To select the most appropriate rate method for Agawam, two impervious-based rate structure options were considered:

Option 1: Billing unit is based on an “equivalent residential unit” (ERU)

- Assumes residential parcels are generally similar in their impact on the public stormwater system and non-residential parcels are dissimilar - parcels are categorized into 2 categories: SFR and NSFR for billing purposes

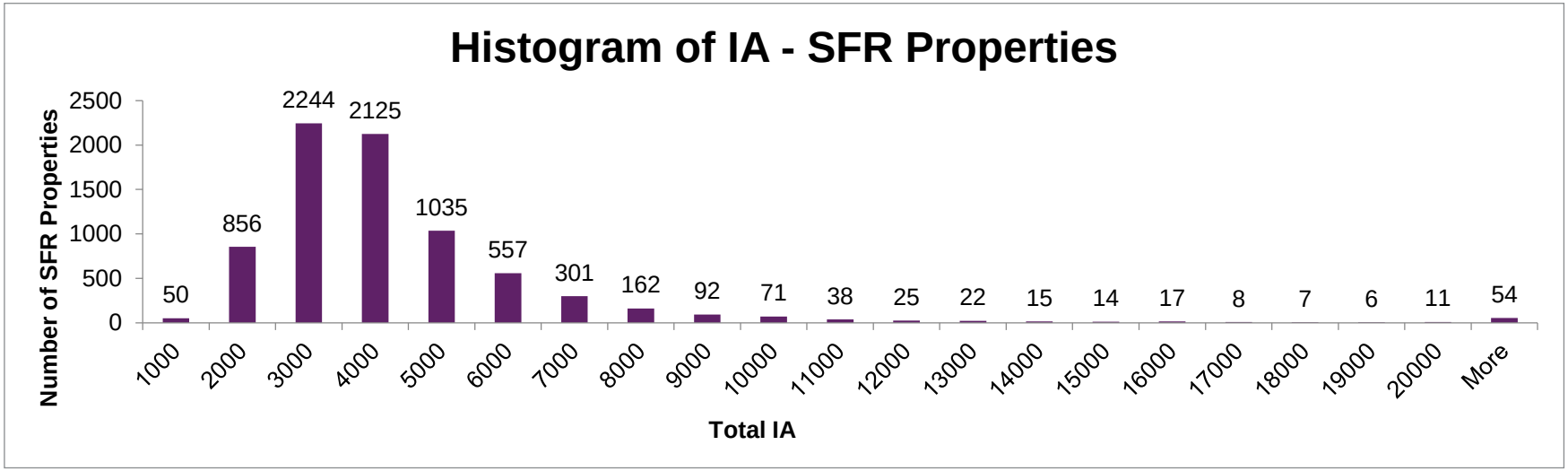
Similar IA for most single-family residential properties

Agawam Data Analysis

Preliminary Stormwater Rate Structure Options

Option 1: Billing unit is based on an ERU *(continued)*

- The IA on all SFR properties was estimated and the median value (or ERU) for Agawam is 3,250 SF of IA.
  - For billing purposes, all SFR properties would be billed one (1) ERU. NSFR IA would be calculated by parcel and the total divided by the ERU to determine total billing units.
  - Note that SFR properties could be placed in “Tiers” based on the number of ERUs, among other basic rate structure options.



Agawam Data Analysis

Preliminary Stormwater Rate Structure Options

Option 2: Billing unit is based on a set Flat Billing Rate

- ***For Agawam, we selected a 1,000 SF billing unit.*** This is large enough to minimize minor issues in using aerial photography to determine IA, but small enough to recognize differences in property runoff impacts.
- Eliminates the need to assign land use codes to property, as all properties are billed on the same basis.
- Requires more accurate IA calculation on all SFR properties, but billing will align more closely with actual IA on properties across Town.

Stormwater Asset Replacement Value

LOS and Best Practice Example Approach

Something to keep in mind as we discuss the appropriate Level of Service (LOS) and annual program costs.

The American Water Works Association is a trade group that prepares manuals and best practice guidance for public water utilities.

Based on life expectancy of pipes and related infrastructure, they recommend that utility operators invest 1-2% of the value of their assets in annual maintenance (older systems at the higher end) and 1-2% in capital replacement or capital reserves.

A rough estimate of the replacement value of Agawam's existing stormwater infrastructure is **$150M.**

- For O&M at 1% - $1.5M/yr
- For Capital at 1% - $1.5M/yr

$3M is a higher LOS and a goal for program growth

Agawam Storm Drain Infrastructure

- 512 Outfalls
- 4,757 catch basins
- 2,352 manholes
- 121.5 miles drain pipe
- 3.2 miles culverts

Preliminary Revenue Analysis and Rate

Using the two rate structure billing options discussed above, the revenue potential of each approach was calculated:

- **Option 1:** 3,250 SF ERU. At $1.00 per month per billing unit, the fee would generate $22,725 a month or $272,700 a year.
- **Option 2:** flat, town-wide billing unit of 1,000 SF would result in 78,702 smaller billing units. For each $1.00 per month per billing unit, the fee would generate $78,702 a month or $944,424 a year.

Applied to the Moderate and Higher level of service options, the following rates per billing unit per month would be required:

Program	ERU (3,250 SF IA)		Flat rate (1,000 SF IA)	
Moderate LOS ($2,052,519)	$7.53/month	$90.36/year	$2.17/month	$26.04/year
Higher LOS ($2,297,790)	$8.42/month	$101.04/year	$2.43/month	$29.16/year

Preliminary Funding Analysis

Financial Impacts on Sample Properties

Single Family Home - Morningside Circle

Estimated Impervious Area

- 2,889 SF

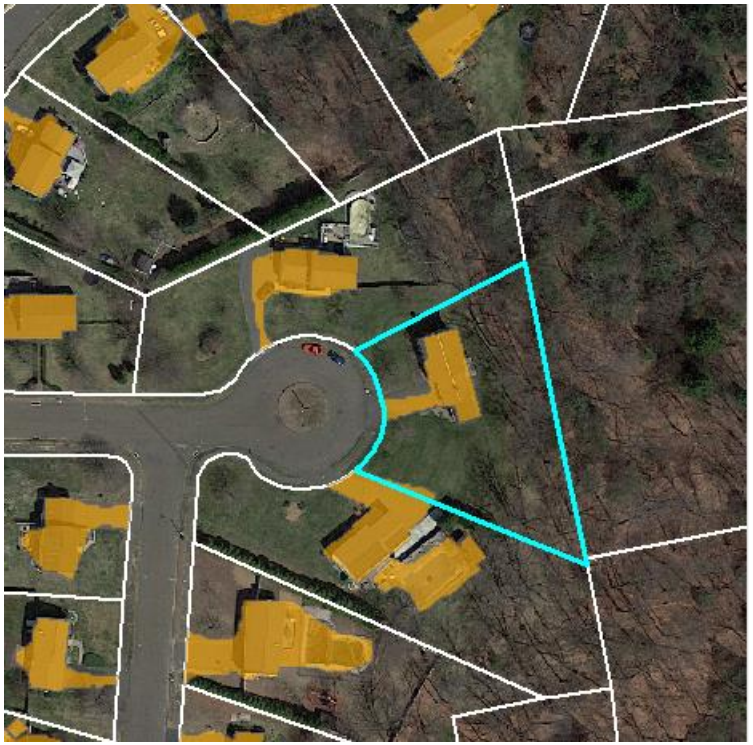
Preliminary Annual Range of Rates:

Option 1 (ERU – 3,250 SF)

- Moderate LOS - $90.36
- Higher LOS - $101.04

Option 2 (1,000 SF BU)

- Moderate LOS - $26.04 x 3 = $78.12
- Higher LOS - $29.16 x 3 = $87.48



Preliminary Funding Analysis

Financial Impacts on Sample Properties

Commercial Property - Allied Floor

Estimated Impervious Area

- 47,402 SF

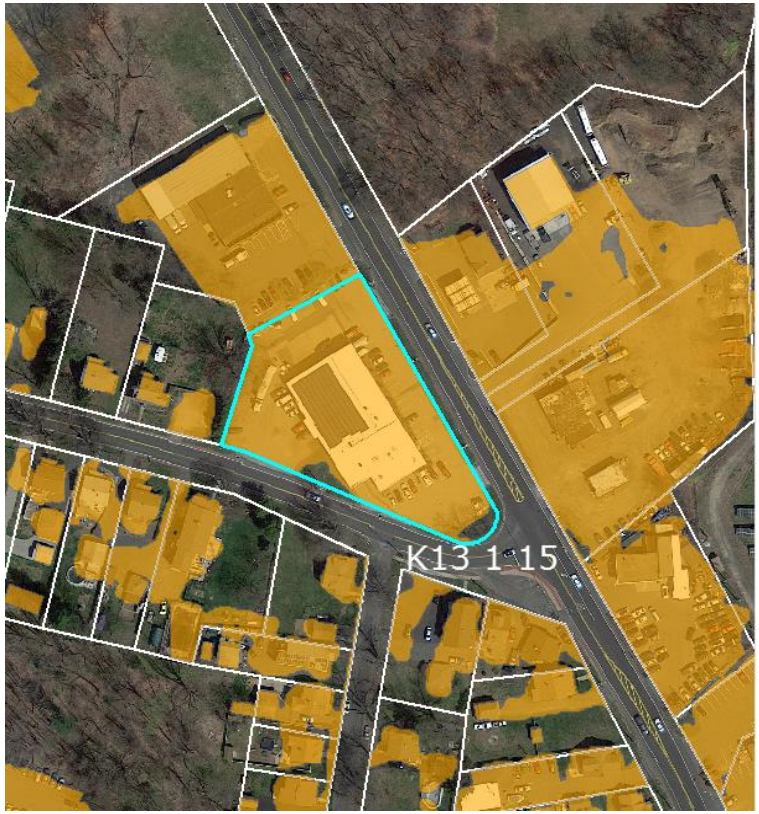
Preliminary Annual Range of Rates:

Option 1 (ERU – 3,250 SF)

- Moderate LOS - $90.36 x 15 = $1,355.40
- Higher LOS - $101.04 x 15 = $1,515.60

Option 2 (1,000 SF BU)

- Moderate LOS - $26.04 x 47 = $1,223.88
- Higher LOS - $29.16 x 47 = $1,370.52



Review of Task Force Meeting #3

Summary of Task Force Feedback

- The future costs are a significant increase overall (up to 2.2% tax increase), especially when considering tax increases do not exceed 2.5% annually.
- There is agreement that there are stormwater needs that are not met and the current level of funding is not adequate.
- Members generally felt that a stormwater fee was a better way to distribute costs and the costs for sample residential properties seemed reasonable for both LOS and rate scenarios.
- The annual fees for a stormwater utility appeared to be reasonable and noted that the increase for a higher LOS would advance the program for little added cost.
- Need to effectively engage the public and inform them of the needs and costs related to stormwater management.

Public Engagement Update

September 25, 2017 Workshop

- Attendees
- Presentation of study materials
  - Task Force meetings 1-3
  - Public engagement activities
- Discussion and feedback
  - Questions and answers
  - Invitation to future meetings

Project Overview

Rationale and Need

Why are we here?

- The Town has existing stormwater problems.
- Stormwater management needs are increasing.
- The Town has limited resources and funding.
- We have the ability to solve these problems and manage stormwater better, but it will cost more.
- What's the best approach to move forward?

Public Engagement Update

September 25, 2017 Workshop

- Questions and comments:
  - What would the fee look like at Sarat Ford or Six Flags?
  - FY17 $892,000 is already taken out of the general fund so it's not clear when the five-year time frame starts.
  - There is a catch basin that leads to a detention pond in my back yard (10 Shelley Lane). The pond is silting up. Am I going to be responsible for maintaining this?
  - If we were caught up on everything we need to do, what would the annual budget look like?
  - Are you open to other ways of funding this work? I have an idea for another source that could help to supplement.
  - Have you ever seen taxes lowered when raising a stormwater fee?
  - The idea of getting more stormwater into streams really causes problems downstream.
  - How do we take care of culverts that are plugged on private property? Under town bylaws, we cannot go on private property to improve the stormwater system.
  - Detention basins should work as infiltration basins.

Public Engagement Update

September 25, 2017 Workshop

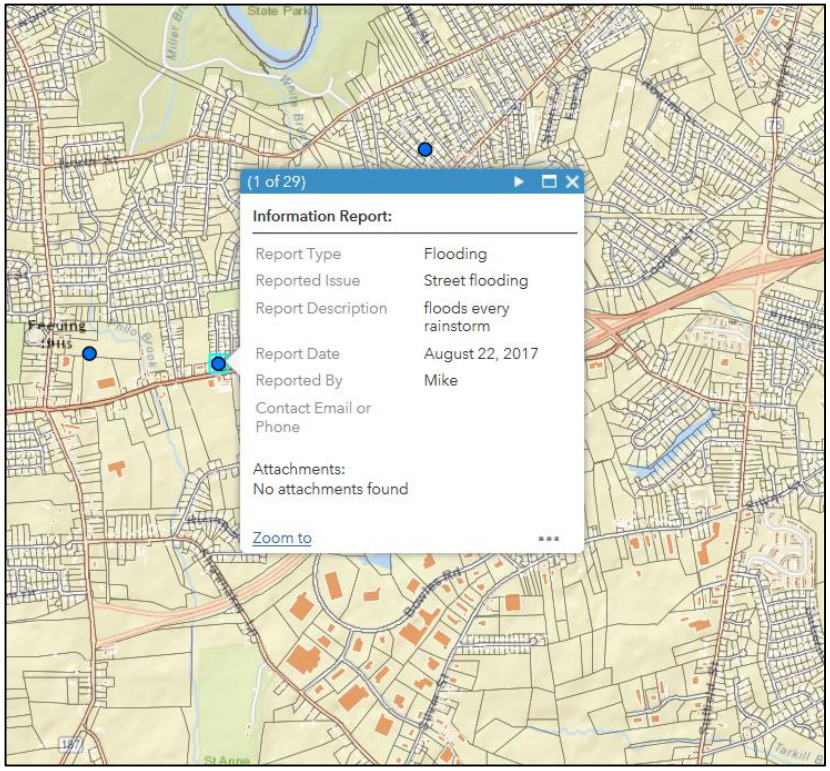
- Questions and comments (continued):
  - My neighbor's property floods because of the public storm system and his driveway is deteriorating. The road runs off onto his driveway. Is he going to have to pay the fee?
  - The presentation is geared to a fee. Will this become a vote?
  - What is the approximate time frame on this?
  - Where does the mandate stop and the improvements to the storm system begin?

  - Note: questions and comments will be addressed in the September 25, 2017meeting summary, as well as the final report for the project.

Public Engagement Update

Ongoing and Future Activities

- Press release September 27, 2017
- Interactive map updates
- Planned focus group meetings



MEDIA RELEASE

CONTACTS: Michelle Chase, Town Engineer, Town of Agawam (413) 821-0625
Patty Gambarini, Principal Environmental Planner, Pioneer Valley Planning Commission, (413) 781-6045

FOR IMMEDIATE RELEASE
September 27, 2017

Candidates briefed on Agawam stormwater program and funding

What level of service makes sense for the Town of Agawam's stormwater management program? And what is the best way to fund this program? These were the key questions discussed at a briefing for local political candidates who joined members of the Stormwater Advisory Task Force, Public Works officials, Pioneer Valley Planning Commission's Patty Gambarini, and Amec Foster Wheeler's Rich Niles on Monday night. The briefing aimed to inform attendees about the ongoing Stormwater Funding Feasibility Study that will continue into the first half of 2018.

Mayor Richard Cohen opened the meeting with remarks emphasizing the importance of the study, which will present recommendations on managing and funding Agawam's stormwater program. These recommendations will help officials make choices that will in turn allow for more integrated planning for the stormwater program.

The evening's presenter, Niles explained that Agawam's stormwater system is extensive, with 4,757 street drains (aka catch basins), 122 miles of drain pipe, and 2,352 manholes that convey storm flows to the Town's 512 outfalls discharging to waterways. Parts of the drainage system are clearly old (pre-1960s), but much of the system is of unknown age. Town Engineer Michelle Chase remarked that with the special camera now available to explore the drainage system more thoroughly, Public Works is finding many old pipes, clogged pipes, and failing pipes that need maintenance. While the Town has always managed this system and there are some important improvement projects under way at Arnold Street, Meadow Street, and South Park Terrace, there has been a lot of deferred maintenance over the years that puts Public Works in a reactive rather than a proactive or sustainable mode when it comes to caring for the system.

On top of properly managing the Town's existing system, there are state and federal stormwater permit requirements that seek to reduce polluted storm flows from reaching rivers and streams. Activities related to permit compliance are compelling the Town to invest more in stormwater management that is resulting in additional costs.

Niles noted that the $173,000 for the stormwater program in the fiscal year 2017 budget was dedicated to permit compliance. This is essentially a subset of the actual program cost, however. "If you take a more holistic and functional look at the budget, accounting

Public Engagement Update

Ongoing and Future Activities

- Planned focus group meetings:
  - Senior citizen luncheon – October 30th
  - Religious organizations – date TBD
  - West of the River Chamber of Commerce – date TBD

- Discussion:
  - Assistance from Task Force members or others
  - Content and key messages
  - Handouts, fact sheets, etc.
  - Additional considerations

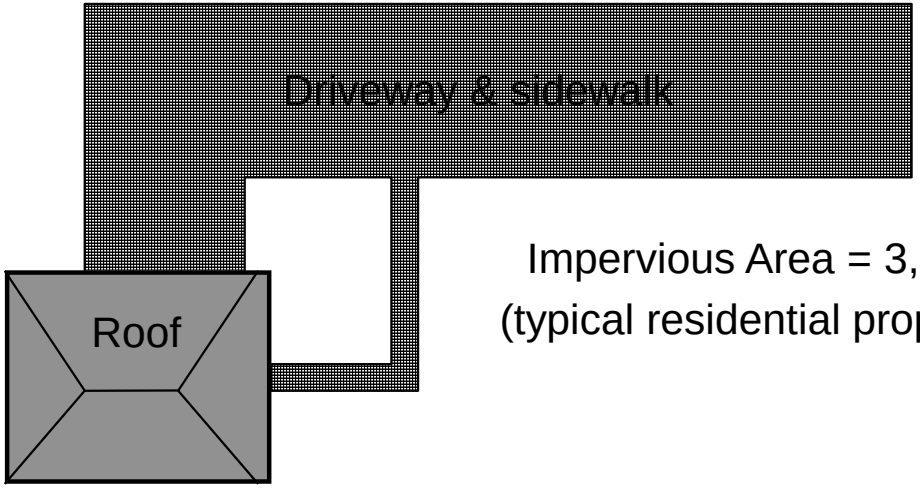
Break

Stormwater Utility Funding Approach

Overview

- Key Components:
  - Rate Methodology – the metric used to assess the impacts of stormwater runoff to the system (e.g., impervious area (IA)).
  - Rate Structure – the metric used to distribute costs among users (e.g., flat rate, tiers, etc.).
  - Billing Units – the size of the IA to which a fee is assigned based on the rate structure.

- Analogy for water utility:
  - Water consumption
  - Cubic feet of water; increasing rates for water use over 4,000 cubic feet
  - $1.90 per hundred cubic feet of water



Impervious Area = 3,250 square feet
(typical residential property in Agawam)

Stormwater Utility Funding Approach
Review of Rate Methodologies

Rate Methodology – the metric used to assess impacts of stormwater runoff to the system.

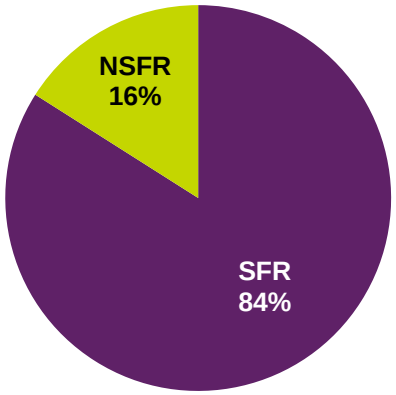
- Preferred methodologies have evolved over the past 20 years as our technology (aerial photography, GIS, remote sensing, database management) has significantly improved.
- Most common methodologies in use in the US include:
  - *Impervious area (IA) (measured)*
  - *IA (estimated – often based on heated square footage or lot size)*
  - *Gross area (square footage of parcel)*
  - *Intensity of development*
  - *Land use*
- Over the past 5 years, rate methodologies have predominantly been based on IA measurement – considered one of the most defensible approaches for estimating a property's contribution to stormwater runoff.
- **FINDINGS:** Agawam has the type and quality of data available to support the use of measured IA as the rate methodology.

Stormwater Utility Funding Approach

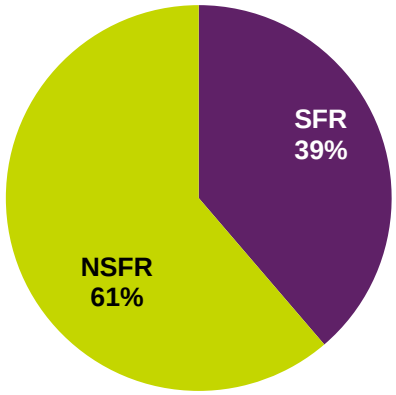
Impervious Cover and Parcel Analysis

- GIS data was updated and analyzed to determine parcel boundaries and impervious area (IA).
- The GIS data was then linked to the Town Assessor's files by parcel ID. Using the Assessor's land use codes, properties were designated Single-Family Residential (SFR) or Non-Single-Family Residential (NSFR).
  - Of the 9,179 developed parcels: 84% or 7,710 are SFR and 16% or 1,469 are NSFR.
  - The SFR properties contained 30,464,260 SF of IA
  - The NSFR properties contained 48,213,970 SF of IA

Total Parcels

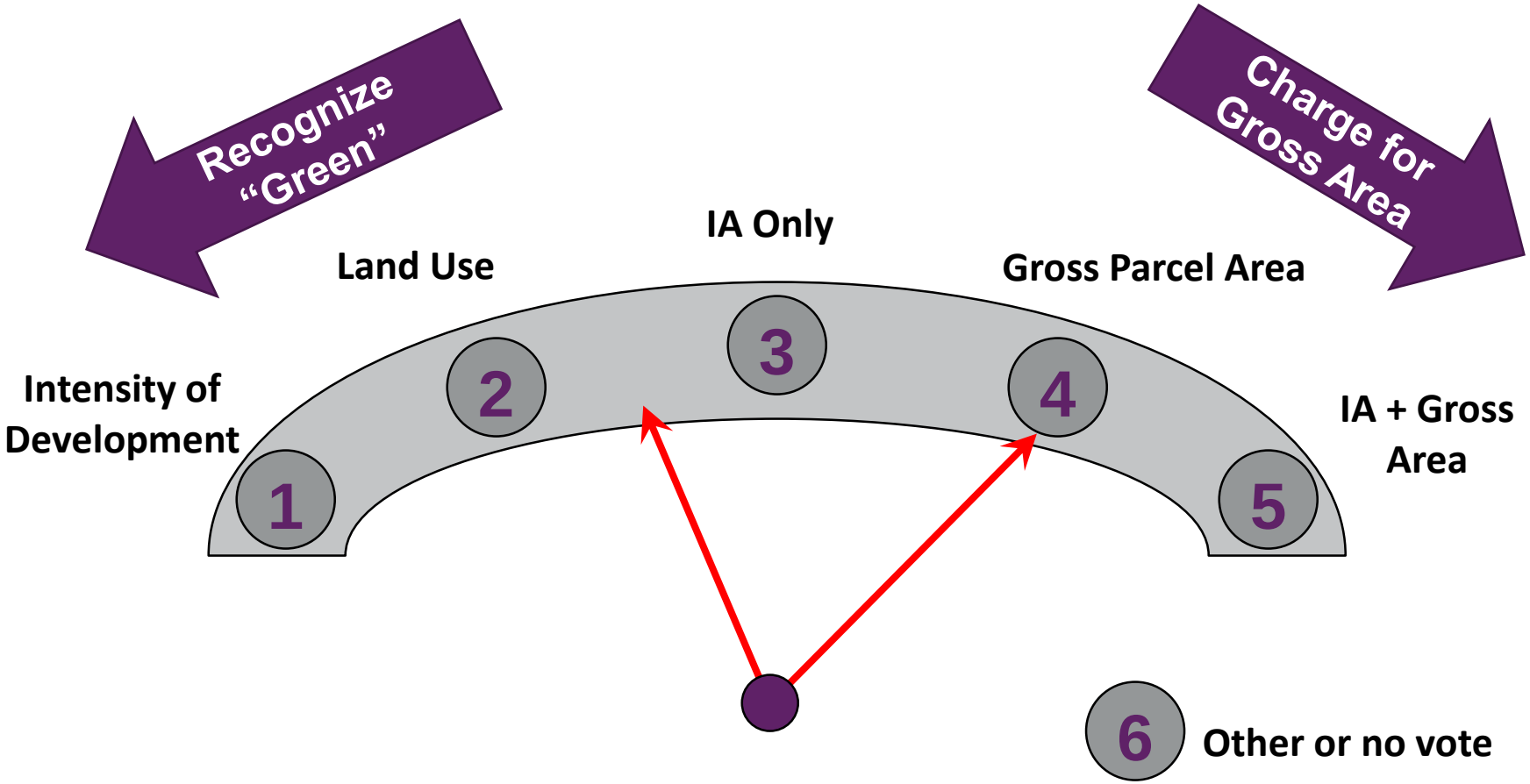


Total IA



Feedback

- What is your preference on the rate methodology?



Note that this is a policy suggestion and not final.

Stormwater Utility Funding Approach

Rate Structure Options

Rate Structure – the metric used to distribute costs among users. It determines who pays and how much each property will pay. A good rate structure provides a solid legal foundation for the charge and assures that the charges are both fairly determined and properly assigned.

- Like rate methodology, the rate structure selected needs to be supported by available data that will allow the IA per parcel to be either estimated or measured so that the differences amongst users can be "fairly" determined and rates can be set to reflect those differences.

Stormwater Utility Funding Approach

Rate Structure Options

Common Rate Structures include:

- Equivalent Residential Unit (ERU) – which assumes residential properties are "similar" in amount of runoff generated and estimates the typical amount of impervious area on a community's residential properties in square feet.
  - All residential properties typically pay the same amount (1 billing unit). Billing for non-residential property is usually determined by measuring the total IA and dividing by the ERU to determine billing units.
  - Variants on the ERU include tiering the residential properties – this requires more data in order to assign properties to the correct tier (IA, total lot size or heated square footage).
- Flat billing rates –a standard billing unit, such as 1,000 SF of impervious area, that can be applied across all land use types.
  - This closely mimics rate setting for other utilities (water usage in 100 cf or electric in 100 kW/hrs).
  - Provides the best alignment with actual distribution of IA to fees charged per property and simplifies data management.

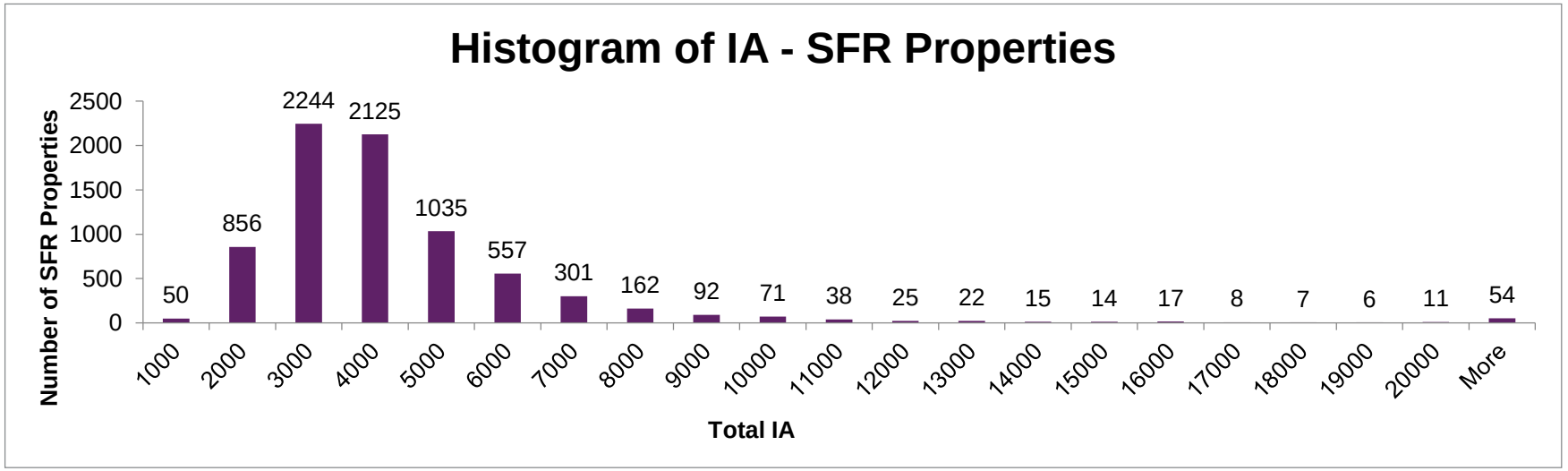
- Agawam has the type and quality of data to use a flat rate fee structure of 1,000 SF as the basis of the rate structure.

Stormwater Utility Funding Approach

Preliminary Stormwater Rate Structure Options

Option 1: Billing unit is based on an ERU *(Continued)*

- The IA on all SFR properties was estimated and the median value (or ERU) for Agawam is 3,250 SF of IA.
  - For billing purposes, all SFR properties would be billed one (1) ERU. NSFR IA would be calculated by parcel and the total divided by the ERU to determine total billing units.
  - Note that SFR properties could be placed in “Tiers” based on the number of ERUs, among other basic rate structure options.

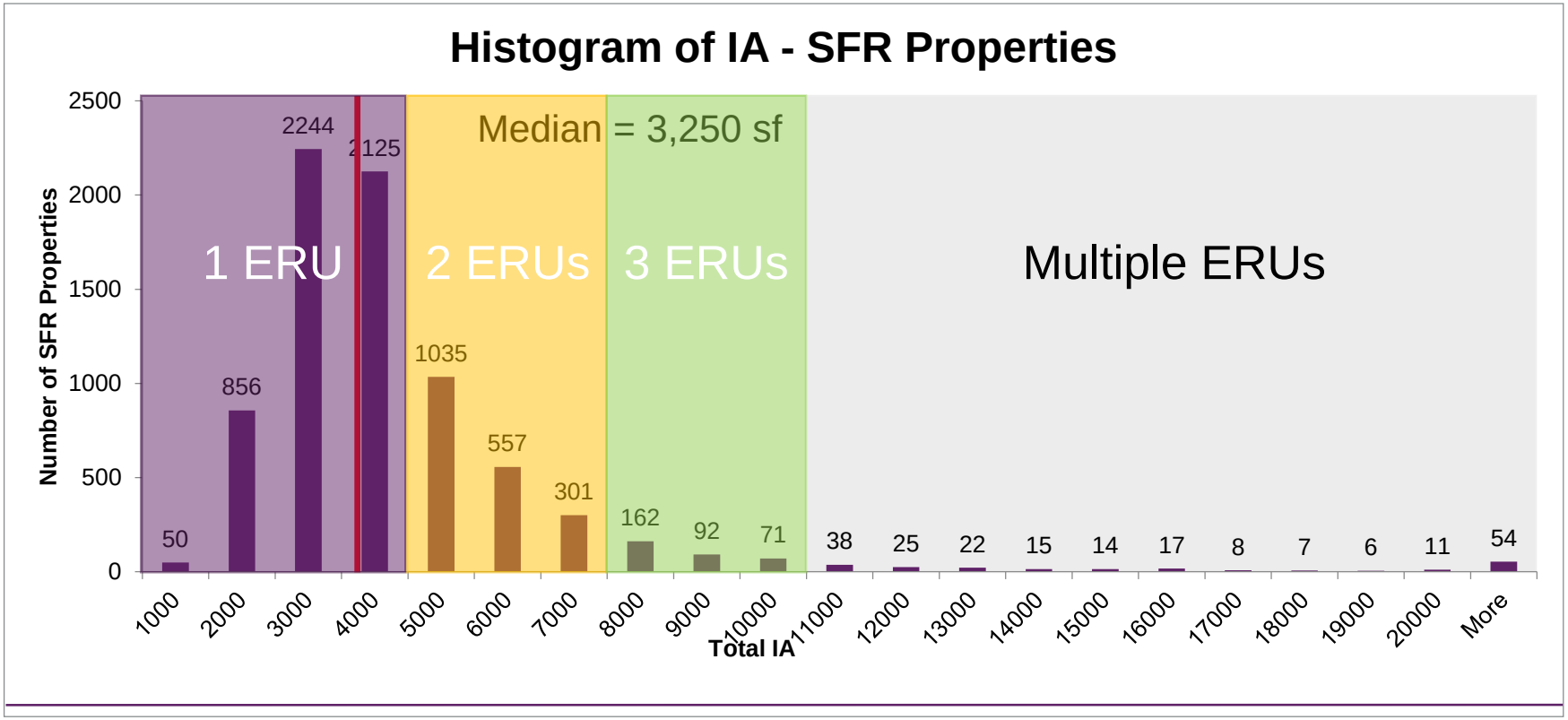


Stormwater Utility Funding Approach

Preliminary Stormwater Rate Structure Options

Tiered Approach:

- SFR properties are lumped into tiers of multiple ERUs
- SFR properties >10,000 sf IA and NSFR properties are billed based on multiples of ERUs

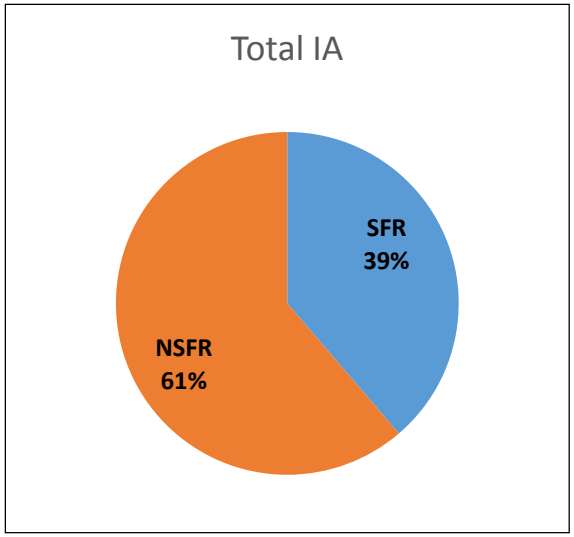


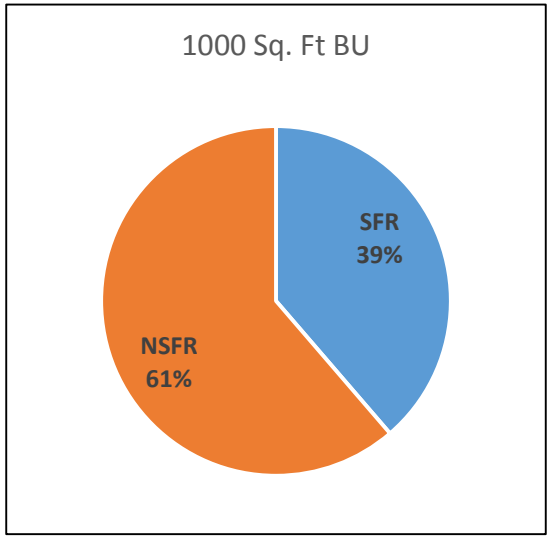
Stormwater Utility Funding Approach

Preliminary Stormwater Rate Structure Options

Option 2: Billing unit is based on a set Flat Billing Rate

- ***For Agawam, we selected a 1,000 SF billing unit.*** This is large enough to minimize minor issues in using aerial photography to determine IA but small enough to recognize differences in property runoff impacts.
- Eliminates the need to assign land use codes to property, as all properties are billed on the same basis.
- Requires more accurate IA calculation on all SFR properties, but billing will align more closely with actual IA on properties across Town.





Stormwater Utility Funding Approach

Rate Structure Options

Billing Units

For each option, the number of billing units (BU) were projected. The preliminary results show:

	SFR	NSFR	Total
Parcels	7,710	1,469	9,179
Total IA (SF)	30,464,260	48,213,970	78,678,230
1. BU - ERU	7,710	15,015	**22,725**
2. BU - Flat Rate	30,499	48,253	**78,702**

Stormwater Utility Funding Approach

Calculation of Rate per Billing Unit

Divide the total annual revenue needed by the amount of available billing units (1,000 sf IA billing unit):

Calculation:

$2,052,519 ÷ 78,702 billing units = $26.08

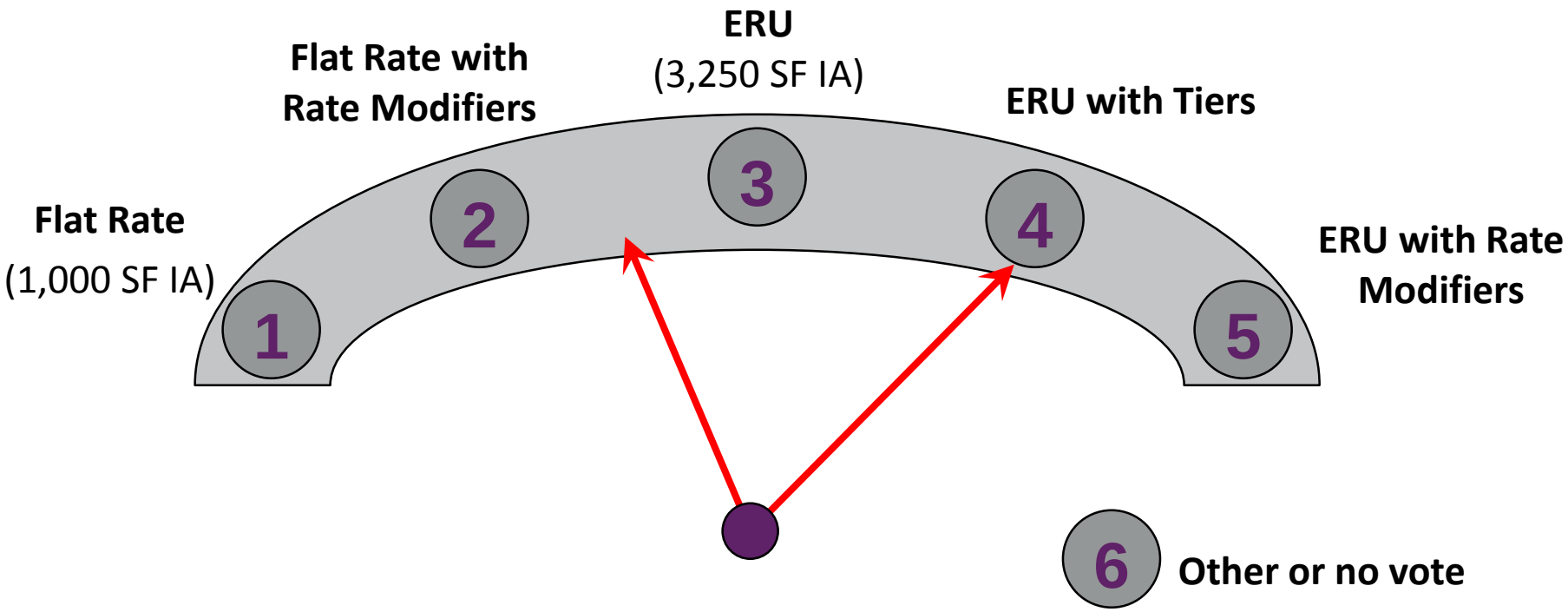
or $26.08 per 1,000 sf of IA per year.

Note: this is a preliminary analysis and the rate is dependent on final policies, data, and revenue needs.

Assumptions: the above calculation assumes annual revenue needs for a moderate level of service, 3% revenue for the credit program, 2% revenue for bad debt, and $30,000 in costs for fee management activities (e.g., billing, collection, database management).

Feedback

- What is your preference on the rate structure approach?



Note that this is a policy suggestion and not final.

Feedback

- What are the key reasons for choosing your preferred rate structure?
  - Financial impacts
  - Fairness
  - Ease of understanding
  - Simplicity (e.g., data management)

Stormwater Utility Funding Approach

Billing Options

- Billing System Options, Advantages & Disadvantages

Billing System Option	Advantages	Disadvantages
1. Tax Bill	- Tax file is parcel based, correlates one-to-one for most parcels (except tax exempt) - Tax records are updated frequently	- Must be a separate invoice, but can be mailed with tax bill* - May resemble a tax
2. Public Utility Bill (water or wastewater)	- More familiar, looks like water & wastewater - Legally a user fee, not a tax - Possible lower delinquency through ability to shut off water - Existing accounts associated with parcel ID	- Minor data updates for properties without water or wastewater accounts
3. Private Utility Bill	- Existing billing vehicle	- Not all properties currently receive a bill - Utility managed by a separate entity
4. New Stand-Alone Bill	- Controlled and focused solely on stormwater - Can be billed at any interval	- More costly to develop and maintain - May be difficult to enforce
***MGL Part I, Title XI, Chapter 60, Section 3A .**		

Stormwater Utility Funding Approach

Billing Options

- Water utility billing option:
  - 11,608 water accounts in Agawam
  - 9,179 developed parcels that would receive a stormwater bill
  - Requires minor account matching and additional database updates

Example Stormwater Fee On Water Utility Bill

City of Prosperity Utility Bill

Customer Name: Max A. Million
Account Number: 123-45-6789
Billing Date: January 15, 2006
Service Address: 1500 East St.

Water Consumption 3400 gallons

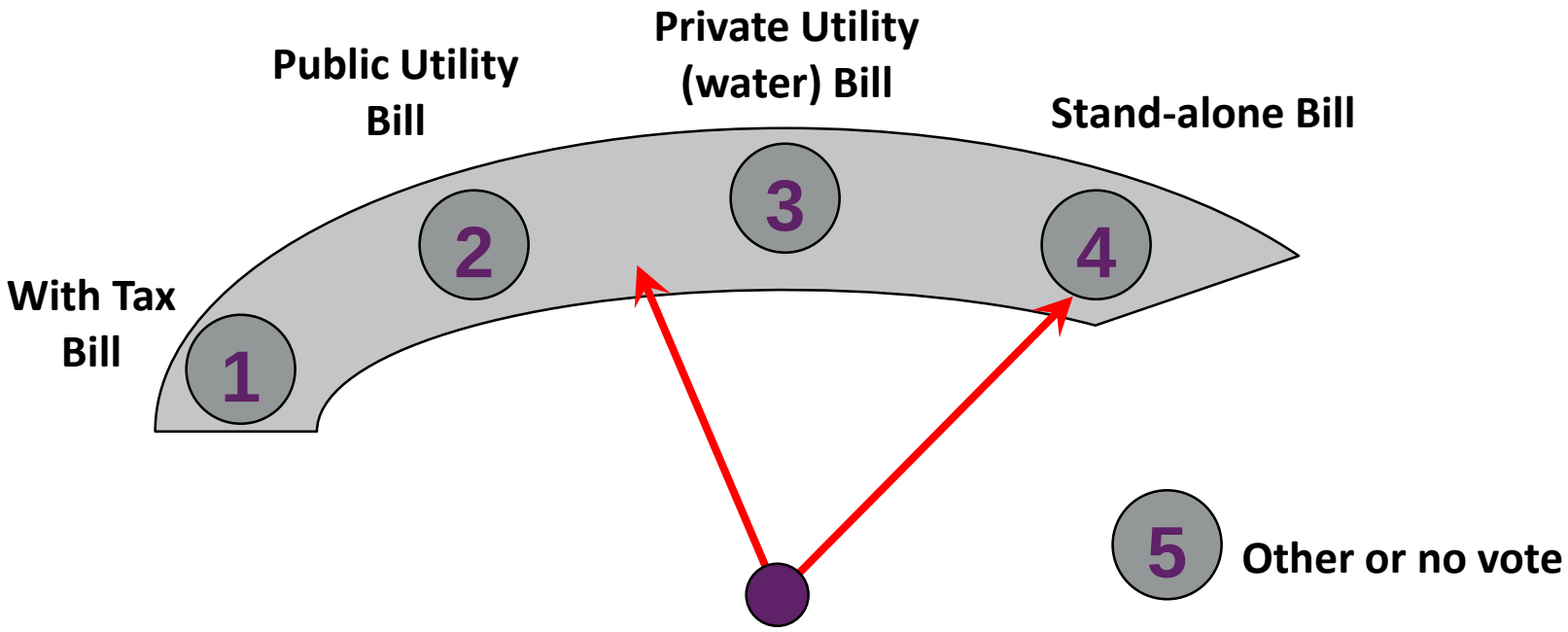
Water Charge:	**$50.95**
Sewer Charge	**$27.86**
Stormwater	
1.0 ERUs @ $4.50/ERU	
Mitigation Credit	**$ 0.00**
Other Adjustments	**$ 0.00**
Stormwater Charge	**$ 4.50**

123-45-6789 **00.00** **$83.41**

City of Prosperity
Max A. Million
1500 East St.
Prosperity, FL 12345-6789

Feedback

- What is your preferred billing method?



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Stormwater Utility Credits

Introduction to Credit Programs

Under Section 16 of Chapter 83 of the General Laws, the Town is allowed to:

"grant credits against the amount of the quarterly or annual charge to those property owners who maintain on-site functioning retention/ detention basins or other filtration structures as approved by the stormwater utility, conservation commission, or other governmental entity with appropriate authority."

Stormwater Utility Credits

Introduction to Credit Programs

Why include a credit program?

- Acknowledges that on-site stormwater management activities can help reduce the cost of public services over the long term
- Supports an equitable distribution of costs across the community
- Can encourage and incentivize the proper on-going maintenance of best management practices (BMPs)

Stormwater Utility Credits

Common Types of Credits

The basis of a credit program is the relationship of the cost of public service to the type of public benefit realized from a site-specific activity.

- What actions typically qualify for stormwater utility fee credits?
  - BMPs that manage “quantity” - detention or retention facilities that control the peak rate of runoff
  - BMPS that are designed to reduce the pollutants in stormwater runoff – infiltration basins, constructed wetlands or rain gardens that infiltrate or filter stormwater
  - Non-structural BMPs, such as street sweeping and use of low impact development (LID) techniques
  - Industrial NPDES Discharge Permit credits which recognizes that permit holders must comply with water quality controls and provide annual regulatory updates

- What actions don’t typically qualify for credits (but could be included in incentive or subsidy programs)?
  - One-time purchases or actions (rain barrel purchase or a stormwater workshop)
  - Financial relief for low income or elderly property owners
  - Compensation for investment in previously installed stormwater systems; credits typically support on-going activities only (maintenance)

Stormwater Utility Credits

Additional Credit Policy Considerations

- Credit programs typically include a “credit ceiling”. Setting a cap or ceiling acknowledges that on-site facilities or actions help with stormwater management, but have little impact on many parts of a public stormwater program: storm drain maintenance, site inspections, plan reviews, MS4 permit tracking and reporting, watershed planning, etc.

- Granting credits impacts the revenue generated from the stormwater fee. This results in property owners that are not participating in the program paying a slightly higher fee to compensate for the reduction in revenue.

Stormwater Utility Credits

Example of Credit Types and Amounts

Portland, Maine: Non-residential Credits

- Basic Water Quality Management Credit: A Basic Credit of 50% is available for impervious area treated with water quality controls that meet the State standards.
  - Wet ponds, filters, infiltration, and/or vegetated buffers must be used to control a runoff volume equal to 1.0 inch of rainfall on all impervious area to be considered treated.
- Basic Water Quantity Management Credit: A Basic Credit of 10% is available for impervious area treated with flood reduction controls.
  - Stormwater management systems must detain, retain, or infiltrate stormwater from the 2-year, 10-year and 25-year storm event so that peak flows from the post-development condition do not exceed the peak flows its pre-development condition.
- Extra Water Quality Management Credit: An additional 25% credit of the stormwater service charge is available for impervious area that is treated by structural controls that are sized for at least 1.6 inches of rainfall instead of 1 inch.
- Extra Water Quantity Management Credit: An additional 15% credit of the stormwater service charge is available for impervious area treated with flood reduction controls that detain, retain, or infiltrate stormwater through the 100-year, 24-hour storm.

Stormwater Utility Credits

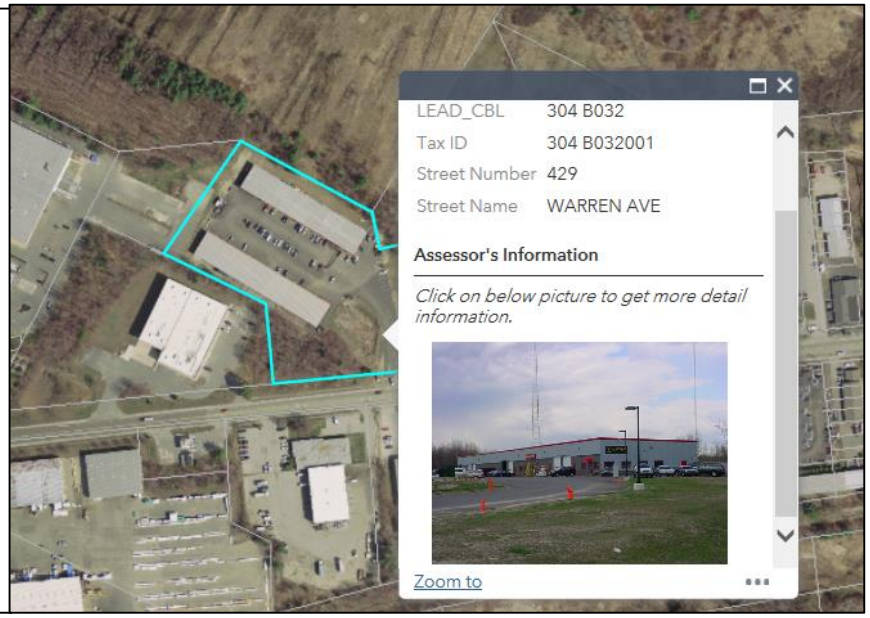
Portland Maine Example

Property Owner Information:

Name and Mailing Address	Property Location	Land Use	No. of Units
424 WARREN AVENUE LLC 401 WARREN AVE PORTLAND ME 04103	429 WARREN AVE	WAREHOUSE & STORAGE	1

Impervious Area Information:

Building Impervious Area (Square Feet):	37921
Surface Impervious Area (Square Feet):	71298
Total Impervious Area (Square Feet):	109219
Total Property Billing Units:	91
Total Property Monthly Stormwater Service Charge $6.00 per month:	$ 546



Available Credits:

- 10% Flood Control (2, 10 & 25-yr storms)
- 50% Water Quality (1.0 inch treated)
- 60% Maximum

Credit Granted:

- Monthly charge = $546/mo.
- Annual charge = $6,552/mo.
- 60% of $546/mo. = $327.60/mo.
- Adjusted charge = $218.40/mo.
- Annual savings = $3,931.20

Extra Credits:

- 15% Flood Control (100-yr storm)
- 25% Water Quality (1.6 inch treated)
- 40% Maximum

Stormwater Utility Credits

Example of Credit Types and Amounts

Portland Maine: Residential Credits

Portland has a three-tiered residential fee structure.

- Credits are available to residential properties that treat impervious area with the following structural controls:
  - Cisterns
  - Dry wells
  - Modified French drains
  - Permeable pavers
  - Rain gardens

- Residential properties can earn a credit of 0.5 billing unit for every whole increment of 600 square feet of impervious area treated with a maximum of 1 billing unit credited.

- Tier 1 (400 - 1,799 ft2) – maximum credit 0.5 billing unit for 600 sq. ft. treated
- Tier 2 (1,800 - 2,999 ft2) – maximum credit 1.0 billing unit for 1,200 sq. ft. treated
- Tier 3 (greater than 2,999 ft2) – maximum credit 1.0 billing unit for 1,200 sq. ft. treated

Stormwater Utility Credits

Other Credit Types and Amounts

Credits vary widely by community – reflecting local priorities and preferences.

Community	Type of Credit	Credit %	Applicability
Mt. Lebanon, PA	Quantity: controls 25-year storm event	Up to 50%	Non-Residential
Virginia Beach, VA	Quantity: controls 25-year storm event	Up to 20%	Non-Residential
Bloomington, IN	Quality: BMPs that remove 90% of TSS during the 1-year storm	Up to 15%	All Properties
South Burlington, VT	Quality: meets State manual requirements	15%	Non-Residential
South Burlington, VT	Education: approved school Water Quality protection curriculum	10%	Public and private schools
Philadelphia, PA	Industrial NPDES Permit: current, approved permit	7%	Industrial facilities
Falls Church, VA	Residential incentives: use of various “tool-box” practices	Up to 10%	Residential

Stormwater Utility Credits
Discussion

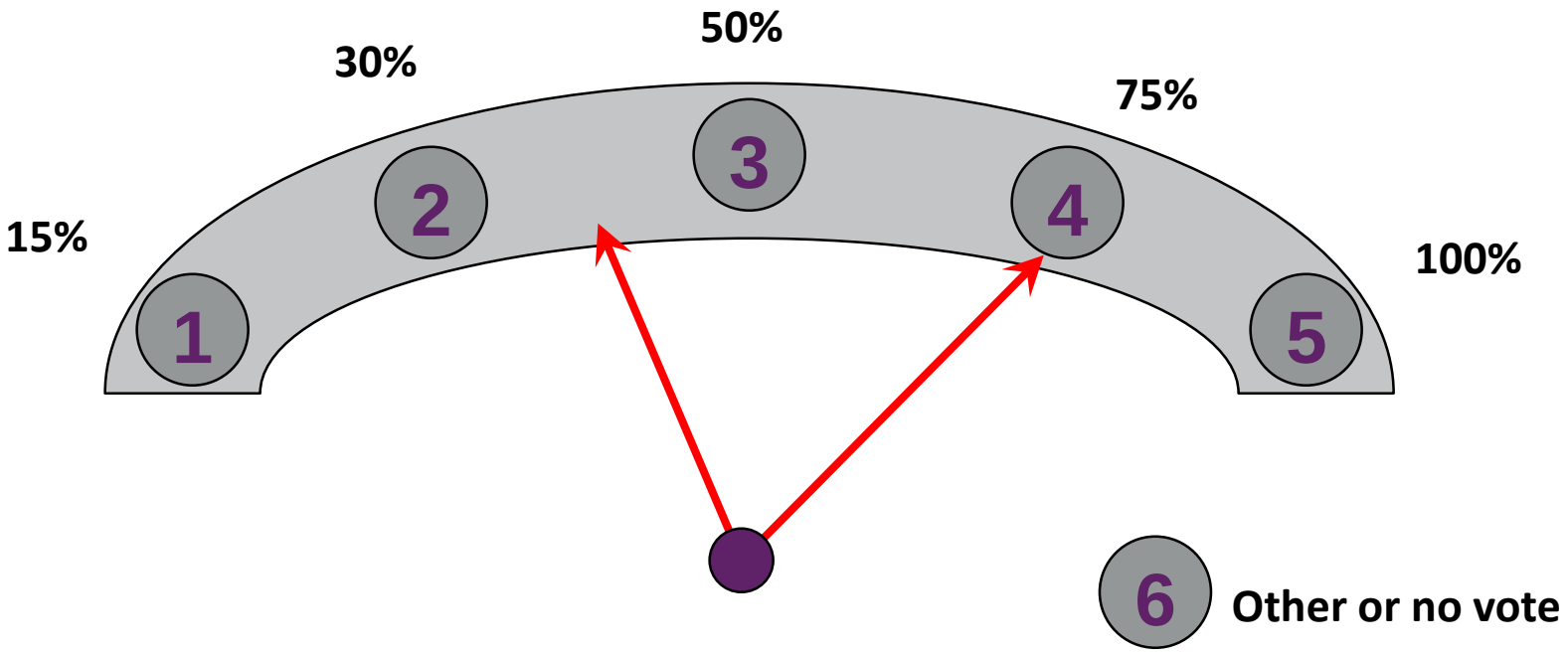
Group discussion on Agawam's credit options:

- Credits types?
  - Water quantity management
  - Water quality management
  - Small user credits (tailored to small IA properties)
  - Education
  - NPDES Discharge Permit
  - Other

Everyone votes once for each credit type

Feedback

- What should be the maximum credit allowed for all types?



Note that this is a policy suggestion and not final.

Next Steps

- Develop draft stormwater utility ordinance
  - For review with Task Force
- Develop draft study report outline
  - For review with Task Force
- Public Engagement
  - Continue engagement plan
- Task Force Meeting #5 – mid November 2017