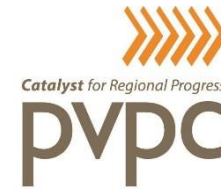


Town of Agawam Stormwater System Assessment and Utility/Fee Planning Project



Citizen Advisory Task Force Meeting #5



November 29, 2017



Agenda

- 6⁰⁰ - 6²⁵p:** **Project Overview and Recent Work**
- ▶ Stormwater needs and costs
 - ▶ Task Force Meeting #4
- 6²⁵ - 6⁴⁰p:** **Public Engagement Update**
- ▶ Update on ongoing and future activities
- 6⁴⁰ - 6⁵⁵p:** **Review of Draft Stormwater Utility Ordinance**
- 6⁵⁵ - 7¹⁰p:** **Break**
- 7¹⁰ - 7⁵⁵p:** **Stormwater Utility Credits**
- ▶ Types and amounts of credits
 - ▶ Examples
- 7⁵⁵ - 8⁰⁰p:** **Next Steps**

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?



Municipal Stormwater System

Agawam DPW Activities



Existing Activities:

- ▶ Catch basin cleaning
- ▶ Street sweeping
- ▶ Drainage structure repair and replacement
- ▶ Culvert cleaning, repair and replacement
- ▶ Management of stormwater treatment facilities
- ▶ Road shoulder and ditch repair
- ▶ Flood response and related improvements
- ▶ Engineering and planning for upgrades
- ▶ Drainage mapping and assessments
- ▶ Stormwater permit compliance

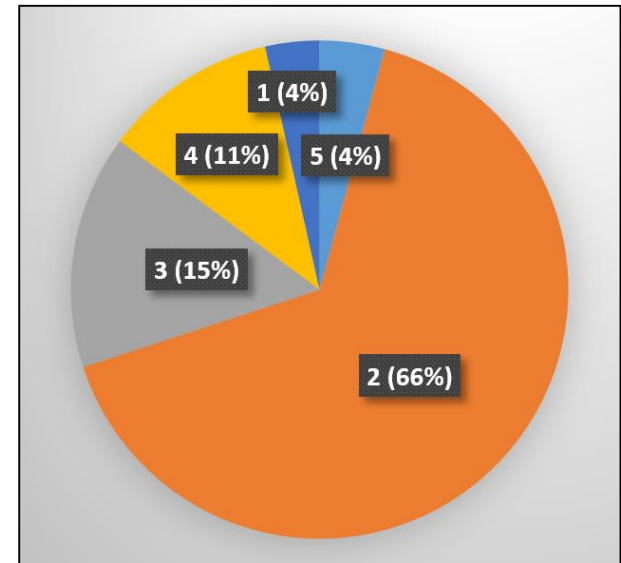


Existing Stormwater Program

All Stormwater Related Expenditures



Functional Category	FY '18 Budget
1. Stormwater Program Administration	\$42,176
2. Stormwater Operations and Maintenance	\$735,799
3. Drainage Engineering and Stormwater Management Planning	\$135,725
4. Regulatory Compliance/Enforcement	\$100,917
5. Stormwater Capital Improvement Projects and Equipment	\$31,456
Total	\$1,046,071



- ▶ Preliminary costs are derived primarily from:
 - ▶ Existing and estimated budget items
 - ▶ Estimated personnel (labor) efforts – approx. 5 full time employees (FTEs)
 - ▶ Contractors and expenses

Stormwater Needs *Summary*



Stormwater Program Challenges:

- ▶ Aging infrastructure
- ▶ Flooding and drainage system capacity
- ▶ Water quality impacts
- ▶ Mapping and understanding of the storm drain system (age, condition, etc.)
- ▶ System maintenance
- ▶ Capital improvements
- ▶ Regulatory requirements
- ▶ Increasing costs
- ▶ Limited resources and funding



Future Stormwater Program Summary of Future Costs



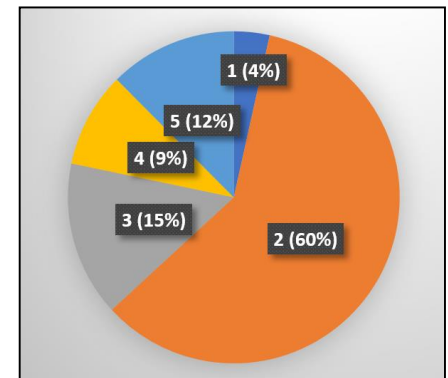
Preliminary Estimate:

Functional Category	FY '18	FY '19	FY '20	FY '21	FY '22	FY '23
1. Stormwater Program Administration	\$42,176	\$66,182	\$67,236	\$67,236	\$67,236	\$67,236
2. Stormwater Operations and Maintenance	\$735,799	\$1,027,446	\$1,126,618	\$1,179,723	\$1,197,723	\$1,215,723
3. Drainage Engineering and Stormwater Management Planning	\$135,725	\$321,284	\$290,519	\$257,449	\$306,599	\$280,389
4. Regulatory Compliance / Enforcement	\$100,917	\$175,950	\$179,269	\$179,269	\$179,269	\$179,269
5. Stormwater Capital Improvement Projects and Equipment	\$31,456	\$39,619	\$289,951	\$289,951	\$289,951	\$289,951
Total	\$1,046,071	\$1,630,481	\$1,953,593	\$1,973,628	\$2,040,778	\$2,032,568

Key Considerations:

- ▶ \$880,138 – net increase
- ▶ Increase of ~2.5 FTEs
- ▶ Increased contractor costs
- ▶ Includes \$250K for minor and major capital projects
 - ▶ Budget needs to be refined over time based on new data from future assessments.

- ▶ FY '19-23 (5-yr avg.):
\$1,926,209





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 reasonable 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

Future Stormwater Program

Primary Funding Options



Tax Revenue vs. User-Fee

▶ **Option A: Tax Override**

- ▶ Based on property value
- ▶ Funds allocated to DPW or other account
- ▶ Town Meeting vote annually

▶ **Option B: Municipal Water Infrastructure Investment Fund**

(MGL Chapter 259 (Section 39M): An Act Improving Drinking Water and Wastewater Infrastructure)

- ▶ Based on property value (surcharge up to 3%)
- ▶ Use of funds is not limited solely to stormwater
- ▶ Town Meeting vote to establish

▶ **Option C: Stormwater Utility (user-fee)**

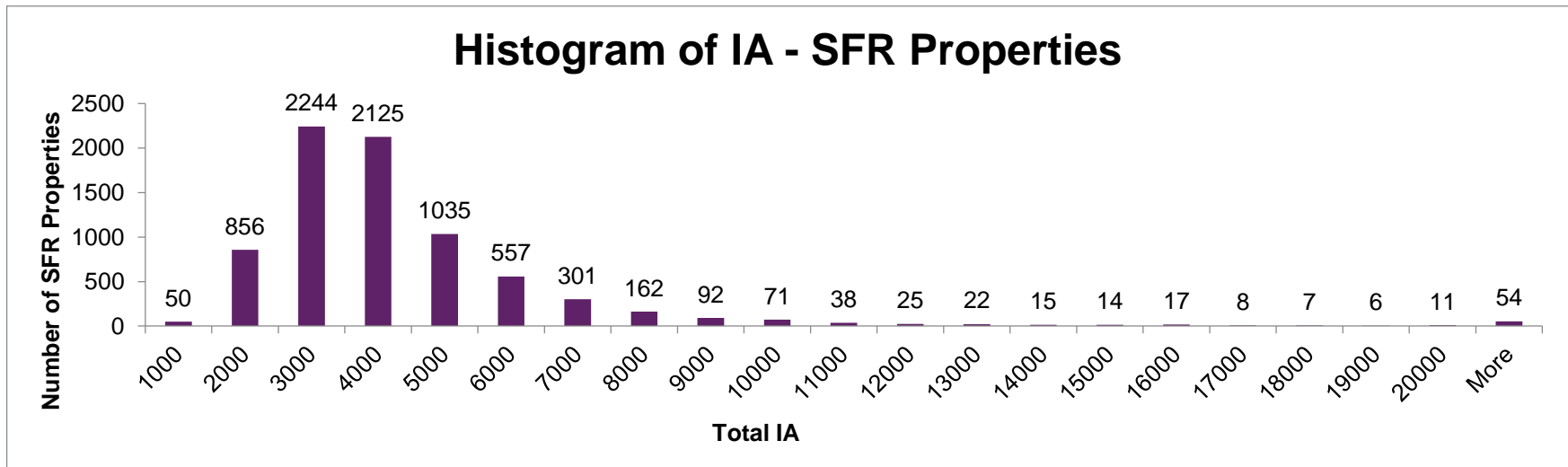
- ▶ Based on impervious cover, not property value
- ▶ Dedicated funding, stormwater only
- ▶ Town Meeting vote to establish
- ▶ Opportunities for credits

Review of Task Force Meeting #4

Summary of Key Issues Covered



- ▶ Stormwater Utility Funding Approach and Policies
 - ▶ Rate methodology
 - ▶ Rate structure
 - ▶ Billing method





Review of Task Force Meeting #4

Rate Methodology

► Task Force Feedback

Preference on Rate Methodology	# Votes
1. Intensity of development	0
2. Land use	0
3. Impervious area only	6
4. Gross parcel area (similar to Chicopee)	0
5. Impervious area and gross area	3

- In general, the Task Force felt that the basic rate methodology should use impervious area and there should be some consideration for the stormwater runoff from the gross (undeveloped) area of properties.



Review of Task Force Meeting #4

Rate Structure

► Task Force Feedback

Preference on Rate Structure	# Votes
1. Flat Rate (1,000 sf of IA)	3
2. Flat Rate with Modifiers	4
3. ERU (3,250 sf of IA)	0
4. ERU with Tiers	1
5. ERU with Rate Modifiers	1

- Option 6: 75% IA and 25% gross area broken into different categories.
- In general, the Task Force preferred a flat rate with potential modifiers to recognize differences in properties.

Review of Task Force Meeting #4

Billing Method



► Task Force Feedback

Preference on Billing Method	# Votes
1. With Tax Bill	0
2. Public Utility Bill (w/water & sewer)	8
3. Private Utility Bill	0
4. Stand-alone Bill	1
5. Other/No Vote	0

- The Task Force preferred billing for stormwater with the existing public utility bill for water and sewer.



Review of Task Force Meeting #4

Task Force Feedback

- ▶ Comments, concerns, and questions that are circulating in the business community around the topic of a stormwater utility fee:
 - ▶ Most importantly, how much is this going to cost them?
 - ▶ Why do we need this and what factors into these needs?
 - ▶ Is this just a “shell” game?
 - ▶ How fair is this to the business community as compared to residents?
 - ▶ Need transparency.
 - ▶ How can we be sure that money we are putting into stormwater will go to stormwater?
 - ▶ How do we avoid paying for a truck in this program that will only get used 20% of the time?
 - ▶ What assurances do we have that the dollars will be used as promised?



Review of Task Force Meeting #4

Task Force Feedback

- ▶ Comments, concerns, and questions that are circulating among religious organizations:
 - ▶ What ability will we have to pay the fee at a time when congregations and revenues are shrinking?
 - ▶ What are the credit opportunities?
 - ▶ While this seems the right thing to do, there are many community services that religious organizations already provide, such as hosting meetings for scouts, AA, etc.

- ▶ Additional Remarks:
 - ▶ This information needs to be discussed throughout the public engagement process.
 - ▶ We want to have informed discussions about how to best fund the Town's stormwater needs.
 - ▶ There is a lot of flexibility in how it can be done.
 - ▶ This is a feasibility study and many items will be vetted further if the Town chooses to continue this process.



Public Engagement Update

Ongoing and Future Activities

- ▶ Planned outreach meetings:
 - ▶ Seniors - October 30 luncheon
 - ▶ Religious organizations – Tuesday, January 9 monthly meeting
 - ▶ Business organizations – date TBD (mid January or so)

- ▶ Feedback from Senior Citizen luncheon:
 - ▶ Concern about too much taxing and not enough efficiency in budgets
 - ▶ Heard a lot about specific drainage and flooding problems (Brookline Avenue/Springfield Street; Oak Street; Valentine Terrace)
 - ▶ People are looking for solutions to these problems and seem receptive to idea of a fee if it will help address flooding and drainage problems

- ▶ Identify emerging themes from conversations (including Advisory Task Force, outreach meetings, and other public meetings)
- ▶ Develop specific messages/information
- ▶ Identify effective way to convey messages/information



Public Engagement Update

Ongoing and Future Activities

- ▶ Emerging themes to date (what appears to matter most to people)
 - ▶ Understanding needs and costs and how will translate to better services/care of the storm system
 - ▶ What fee looks like for individual property owners and credit opportunities
 - ▶ Fairness
 - ▶ Assurances that money will be used as specified/promised
 - ▶ Localized flooding and drainage problems



Public Engagement Update

Ongoing and Future Activities

► Discussion:

- Any other themes that you feel are important?
- Any Task Force members available to join us at upcoming outreach meetings?



Draft Stormwater Utility Ordinance

For Discussion Purposes

Ordinance Anatomy:

- ▶ Legal authority to establish a utility
- ▶ Organizational structure – who would manage the fund and provide stormwater services
- ▶ Purpose of the fund – what activities could be covered by the fund
- ▶ Rate setting process
- ▶ Fee exemptions
- ▶ Credits
- ▶ Billing & collections
- ▶ Appeals

See Handout “Draft Ordinance”





Draft Stormwater Utility Ordinance

Phased Approach

Public engagement:

- ▶ Robust campaign prior to Council vote to establish stormwater utility.
- ▶ Communicate program needs, costs, and impacts to property owners.

Town Council vote:

- ▶ Establish organizational structure and approve stormwater utility.
- ▶ Set rate and billing procedures.

Final implementation steps:

- ▶ Finalize revenue need
- ▶ Finalize rate structure, credits, and fees
- ▶ Establish billing and collection procedures
- ▶ Ongoing public engagement





Break





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.”

Note: credits are not available through other funding mechanisms, such as the general fund.

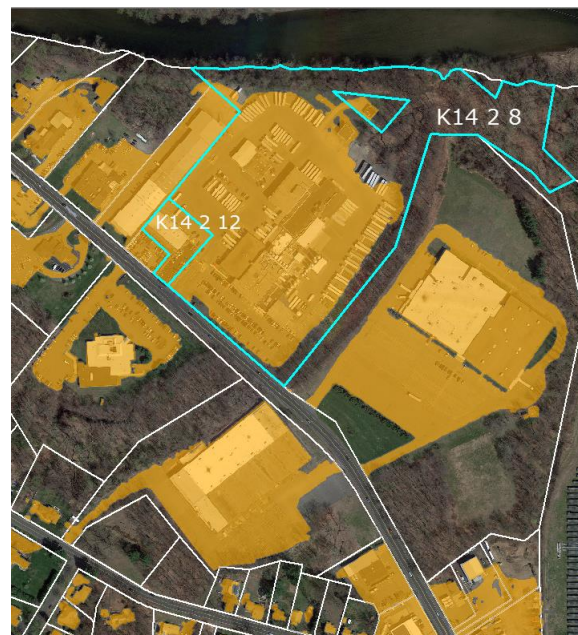


Stormwater Utility Credits

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

Amount of Credit

- ▶ Considerations for the total credit amount or “ceiling”:
 - ▶ On-site stormwater controls can help defray some costs, but the Town is still responsible for Town-wide existing infrastructure management and water quality protections.
 - ▶ The cumulative impacts of development including volume increase, peak increase, and water quality impacts continue to require an extensive public stormwater system.
 - ▶ The use of the stormwater program by every downstream property is protected by the imposition of controls on all upstream parcels.
 - ▶ The shared runoff impacts are realized through the construction of roadways and other public hard surfaces whose impact and benefit can be properly distributed across the rate base.
 - ▶ Example credit “ceilings”:
 - ▶ 50% Northampton, MA
 - ▶ 60% Portland, ME
 - ▶ 50% South Burlington, VT



Stormwater Utility Credits

Amount of Credit

► Consideration of Agawam's future "fixed" costs:

Functional Category	5-yr avg. (FY '19-'23)
1. Stormwater Program Administration	\$67,025
2. Stormwater Operations and Maintenance	\$1,149,447
3. Drainage Engineering and Stormwater Management Planning	\$291,248
4. Regulatory Compliance/Enforcement	\$178,605
5. Stormwater Capital Improvement Projects and Equipment	\$239,885
Total	\$1,926,209

~30%
fixed costs

~1/2 is for dedicated staff and equipment
(~30% of total cost) . . . represents some fixed costs



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

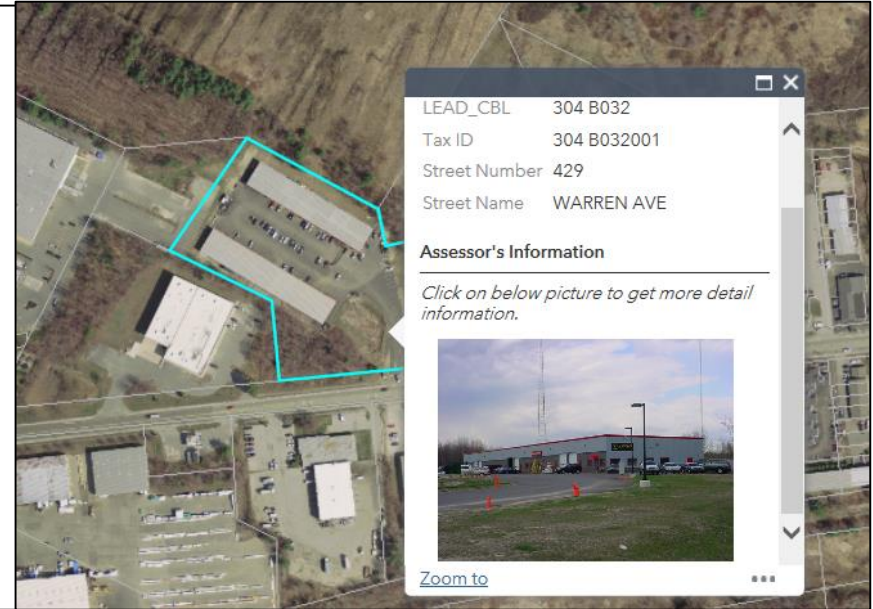


Property Owner Information:

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 credit 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 – 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
Greenville, NC	Quality: BMPs that provide nutrient load reduction	20%	All Properties
South Burlington, VT	Education: approved school Water Quality protection curriculum	10%	Public and private schools
Jacksonville, FL	Education: curriculum that reaches >100 individuals	5%	Institutions and Businesses
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

- ▶ Consider Agawam's needs and priorities . . . previous voting
 - ▶ Aging infrastructure – 5 votes
 - ▶ Flooding problems – 5 votes
 - ▶ Erosion of channels and streams – 4 votes
 - ▶ Water quality problems – 3 votes
 - ▶ Wastewater or septic pressures – 3 votes
 - ▶ Drinking water protection – 3 votes

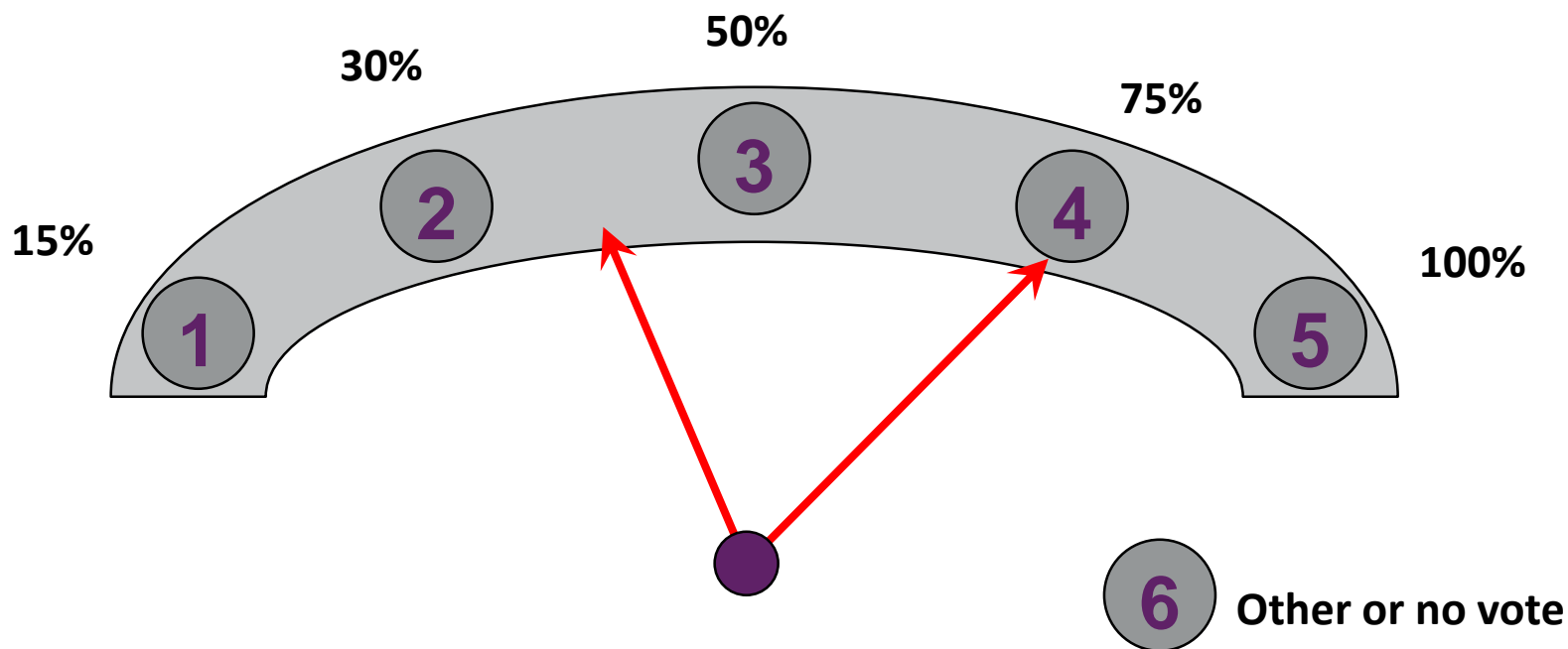
- ▶ Should there be one credit program for all property types?

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

- ▶ Public Engagement
 - ▶ Continue engagement plan

- ▶ Develop draft study report outline
 - ▶ For review with Task Force
 - ▶ Outline recommendations and key messages

- ▶ Task Force Meeting #6 – January 2018