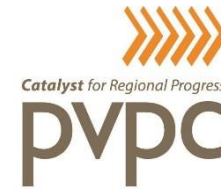
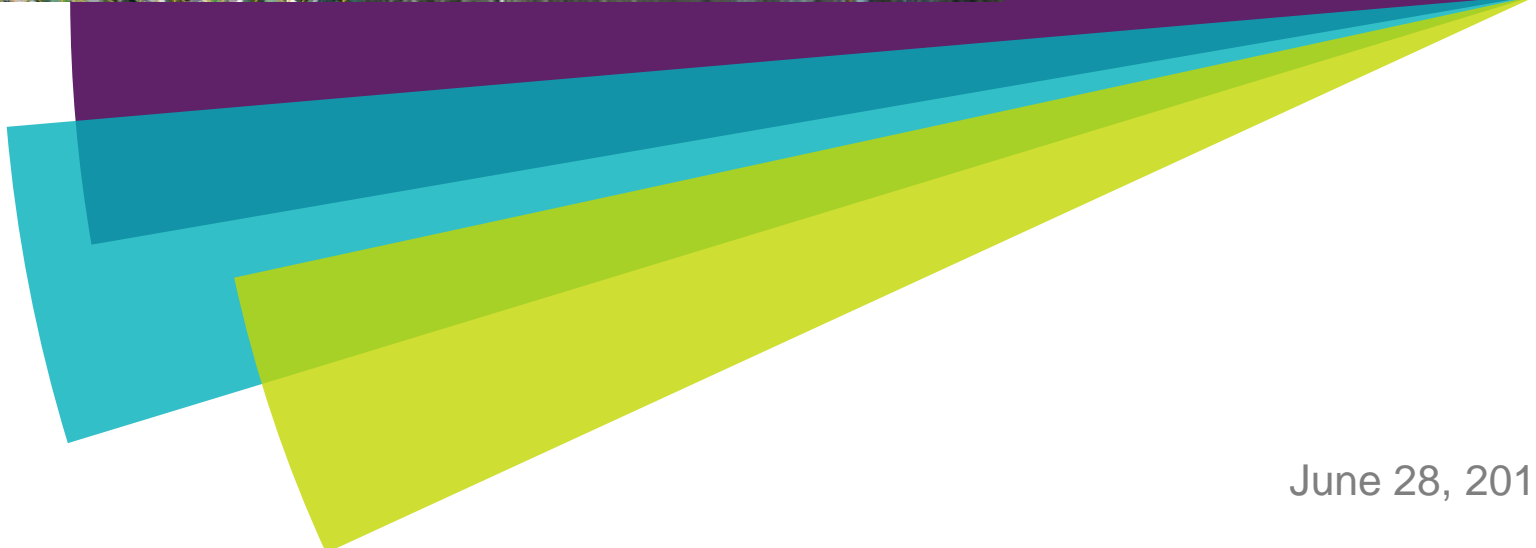


# Town of Agawam Stormwater System Assessment and Utility/Fee Planning Project



## Citizen Advisory Task Force Meeting #3



June 28, 2017



# Agenda

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- 6<sup>00</sup> - 6<sup>10</sup>p:**      **Review of Meeting #2**
- 6<sup>10</sup> - 6<sup>25</sup>p:**      **Stormwater Utilities**
- ▶ Introduction and funding approach
- 6<sup>25</sup> - 6<sup>55</sup>p:**      **Agawam Data Analysis**
- ▶ Impervious cover and parcel analysis
  - ▶ Stormwater billing units (ERU and other options)
  - ▶ Next steps
- 6<sup>55</sup> - 7<sup>05</sup>p:**      **Break**
- 7<sup>05</sup> - 7<sup>45</sup>p:**      **Preliminary Funding Analysis**
- ▶ Revenue need and level of service
  - ▶ Rate structure, initial rates, and sample properties
  - ▶ Next steps to refine/update funding analysis
- 7<sup>45</sup> - 7<sup>55</sup>p:**      **Public Engagement Update**
- 7<sup>50</sup> - 8<sup>00</sup>p:**      **Next Steps**



# Review of Task Force Meeting #2

## *Summary of Key Issues Covered*

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- ▶ Agawam's existing stormwater services and costs
  - Key functions – program administration, operations and maintenance, engineering and planning, regulatory compliance and enforcement (including MS4 permit), capital improvements
  - Summary of current costs by function – labor, contract services, expenses
- ▶ Stormwater challenges and needs
- ▶ Projected future stormwater costs
- ▶ Level of service considerations
- ▶ Public engagement and proposed activities – audiences and messages
- ▶ Preliminary discussion on stormwater program funding options



# Review of Task Force Meeting #2

## *Summary of Activities by Function*

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- ▶ Stormwater Program Administration
  - General administration (budgets, personnel, management, grants, etc.)
- ▶ Stormwater Operations and Maintenance
  - Inspection, cleaning, maintenance and repairs of all stormwater assets
  - Street sweeping
  - Storm cleanup/flood relief response
  - Equipment maintenance/repair
- ▶ Drainage Engineering and Stormwater Management Planning
  - Conditions Assessments and Asset management
  - Planning/design of upgrades and replacements
  - System mapping and database management
- ▶ Regulatory Compliance/Enforcement
  - Permit compliance
  - Plan reviews, inspections and reporting
- ▶ Stormwater Capital Improvement Projects and Equipment

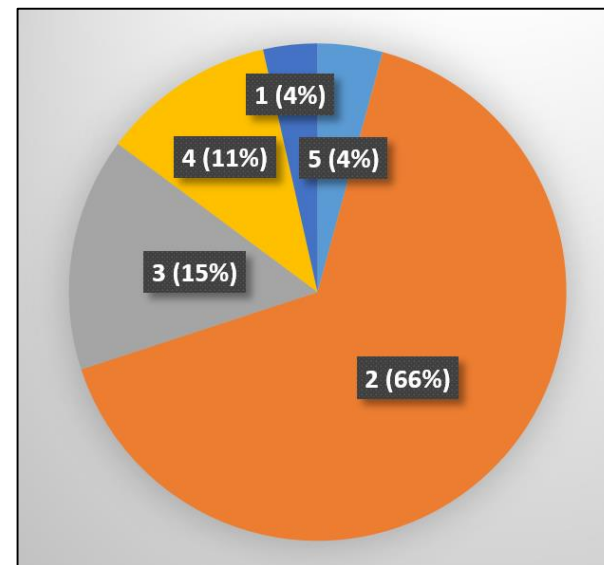




# Review of Task Force Meeting #2

## Summary of Current Costs

Functional Category	FY '17 Budget
1. Stormwater Program Administration	\$37,676
2. Stormwater Operations and Maintenance	\$586,799
3. Drainage Engineering and Stormwater Management Planning	\$135,725
4. Regulatory Compliance/Enforcement	\$100,917
5. Stormwater Capital Improvement Projects and Equipment	\$31,456
<b>Total</b>	<b>\$892,571</b>



- ▶ Preliminary costs are derived primarily from:
  - Existing and estimated budget items
  - Estimated personnel (labor) efforts
  - Contractors and expenses



# Review of Task Force Meeting #2

## *Stormwater Needs*

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### Identified Needs:

- ▶ Maintenance backlog of deteriorated storm drain infrastructure with associated increased effort for labor and equipment
- ▶ Culvert repairs: North Street culvert is severely deteriorated, resulting in bank erosion for White Brook
- ▶ Replace failed pipes: Westford Circle outfall pipe separation and erosion
- ▶ Educate and enforce detention pond maintenance: private systems
- ▶ Increase maintenance of publicly-owned detention basins
- ▶ Design/replace undersized pipes: Arnold Street
- ▶ Identify and eliminate sanitary sewer cross-connections and other illicit discharges
- ▶ Increasing MS4 permit requirements: inventories, inspections, outfall screening, good-housekeeping activities (street sweeping and catch basin cleaning)
- ▶ Additional administration, engineering, planning, and asset management to support assessment and implementation of planned system rehabilitation and replacement



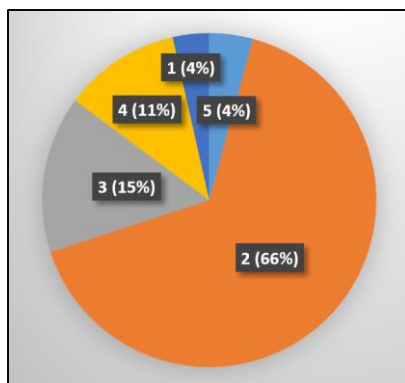
# Review of Task Force Meeting #2

## Projected Future Stormwater Program Costs

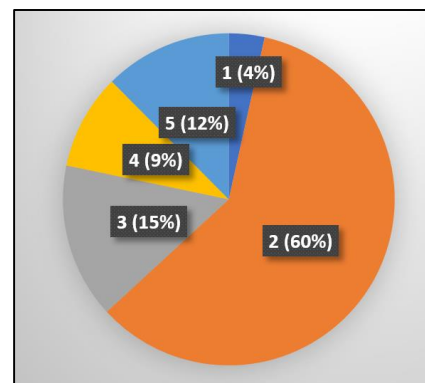
### Preliminary Estimate:

Functional Category	FY '17	FY '18	FY '19	FY '20	FY '21	FY '22
1. Stormwater Program Administration	\$37,676	\$66,182	\$67,236	\$67,236	\$67,236	\$67,236
2. Stormwater Operations and Maintenance	\$586,799	\$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
<b>Total</b>	<b>\$892,571</b>	<b>\$1,630,481</b>	<b>\$1,953,593</b>	<b>\$1,973,628</b>	<b>\$2,040,778</b>	<b>\$2,032,568</b>

► FY '17



► FY '18-22 (5-yr avg.)





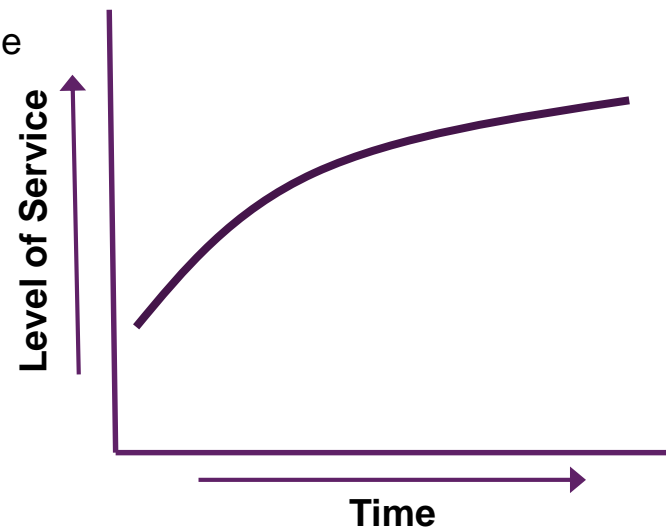
# Review of Task Force Meeting #2

## *Level of Service Considerations*

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### Thoughts on the following:

- ▶ **Total Program Level of Service for Agawam**
  - Minimal Level of Service = \$ 1.07M (status quo, minimally compliant)
  - Moderate Level of Service = \$1.5M to \$2M (allows for program growth)
  - High Level of Service = \$2M to \$2.5M (condenses schedule for capital improvements)
  - Exceptional Level of Service = >\$2.5M (aggressive, sustainable more rapidly)
  
- ▶ **Total Program Cost and Affordability**
  - Net cost is total stormwater fee minus tax decrease
  - Budget transfer from DPW general fund to stormwater fee
  
- ▶ **Options for Phasing Program Over Time**
  - Program growth
  
- ▶ **Capital Expenditures and Schedule**
  - Pay as you go
  - Bonding
  - Back-end loading





# Review of Task Force Meeting #2

## *Input on Public Engagement Plan*

### Questions to facilitate input:

1. Are there specific groups of people we should reach? If yes, who?
2. What are your thoughts on most effective ways to engage a wider audience in talking about stormwater?

1. Specific groups noted	2. Ideas for ways to reach groups
<b>a. Senior citizens</b>	Join them for luncheon at the Senior Center and then hold "office hours" for them to come talk individually
<b>b. Detention pond owners</b>	Door hangers, mailing, separate meeting
<b>c. People who live and work in area of Town where there are stormwater problems</b>	Mailer, neighborhood meetings
<b>d. Businesses</b>	Chambers of Commerce, Rotary Club
<b>e. Large property owners (owners with large impervious surfaces)</b>	Chamber of Commerce, direct mailings, small group meetings
<b>f. Senior leadership</b>	City Council or legislative committee workshop, or even during citizen speak at regular meeting (not a lot of time provided though)
<b>g. High school students</b>	National Honors Society, social media
<b>h. Taxpayers</b>	Mailer, possibly the tax bill, social media
<b>i. Condo owners</b>	Condo association meetings Note: need to help them understand stormwater (some still don't understand that there is no trash pick-up at condos)



# Review of Task Force Meeting #2

## *Input on Public Engagement Plan*

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### Questions to facilitate input:

3. What are major concerns you think we might anticipate?
4. What do you think are meaningful responses to these concerns?

3. Major concerns noted	4. Meaningful responses to concerns noted
<b>a. Not understanding language, especially things like "impaired" waterway?</b>	This information is part of the stormwater program and regulatory requirements (use fact sheets).
<b>b. Why is there a need for dollars, new fee?</b>	Present a comprehensive and clear picture of costs to responsibly manage the storm drain system.
<b>c. This is an unfunded mandate.</b>	Talk about benefits of compliance – more cohesive program. Focus on infrastructure needs and real problems that exist regardless of regulatory mandates.
<b>d. Fairness, especially if no obvious drainage on or near your property.</b>	Emphasize the program elements and management of the public infrastructure that everyone uses and benefits from (e.g., reduced flooding).
<b>e. Fairness, especially if you are a property owner who does not contribute to stormwater budget now.</b>	Present current funding approach (taxes) and future options, pros and cons.
<b>f. Expectations/results.</b>	Present on the future level of service (activities) and what projects will be able to do (i.e., solve problems).
<b>g. How do you determine who pays what and how to assess fees?</b>	Present rate structure options and data to support funding approach.



# Review of Task Force Meeting #2

## *Input on Public Engagement Plan*

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### Questions to facilitate input:

3. What are major concerns you think we might anticipate?
4. What do you think are meaningful responses to these concerns?

3. Major concerns noted (continued)	4. Meaningful responses to concerns noted (continued)
<b>h. Can't control rainfall that's falling (like you can control how much drinking water you used).</b>	Impervious surface is used a surrogate for rainfall – important to cover cost of service to manage the public system and the burden from individual properties.
<b>i. Property to property comparisons and capturing credit.</b>	Use property-specific data and examples.



# Review of Task Force Meeting #2

## Primary Funding Options

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### 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)**

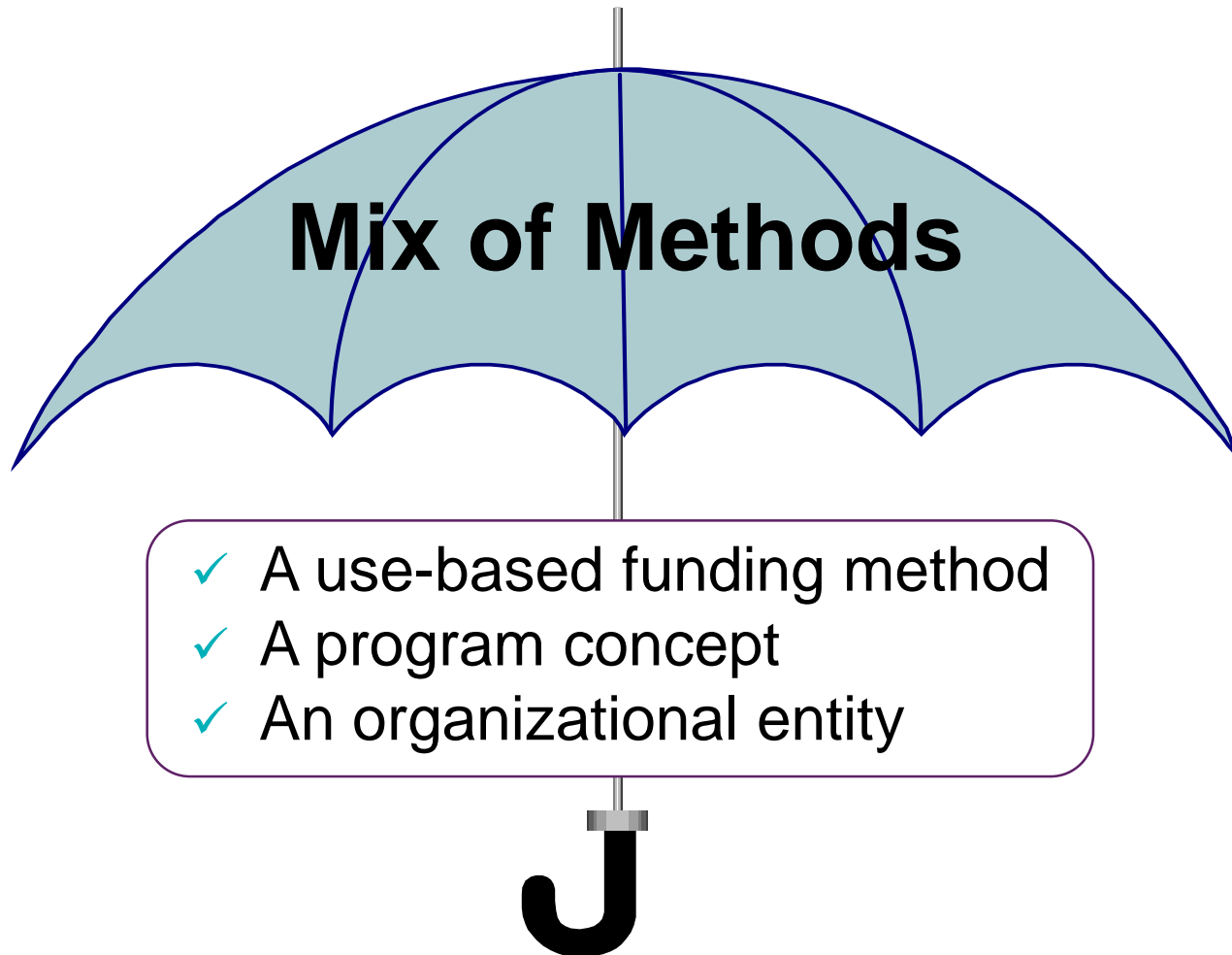
- Based on impervious cover, not property value
  - Dedicated funding, stormwater only
  - Town Meeting vote to establish
  - Opportunities for credits
-

# Stormwater Utilities

## *Basic Concept*



## What is a Stormwater Utility?



# Stormwater Utilities

## Rational Nexus



### How Does it 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
- ▶ Not a “Rain Tax” – Value of the Property is Not Considered



# Stormwater Utilities

## *Key Benefits*

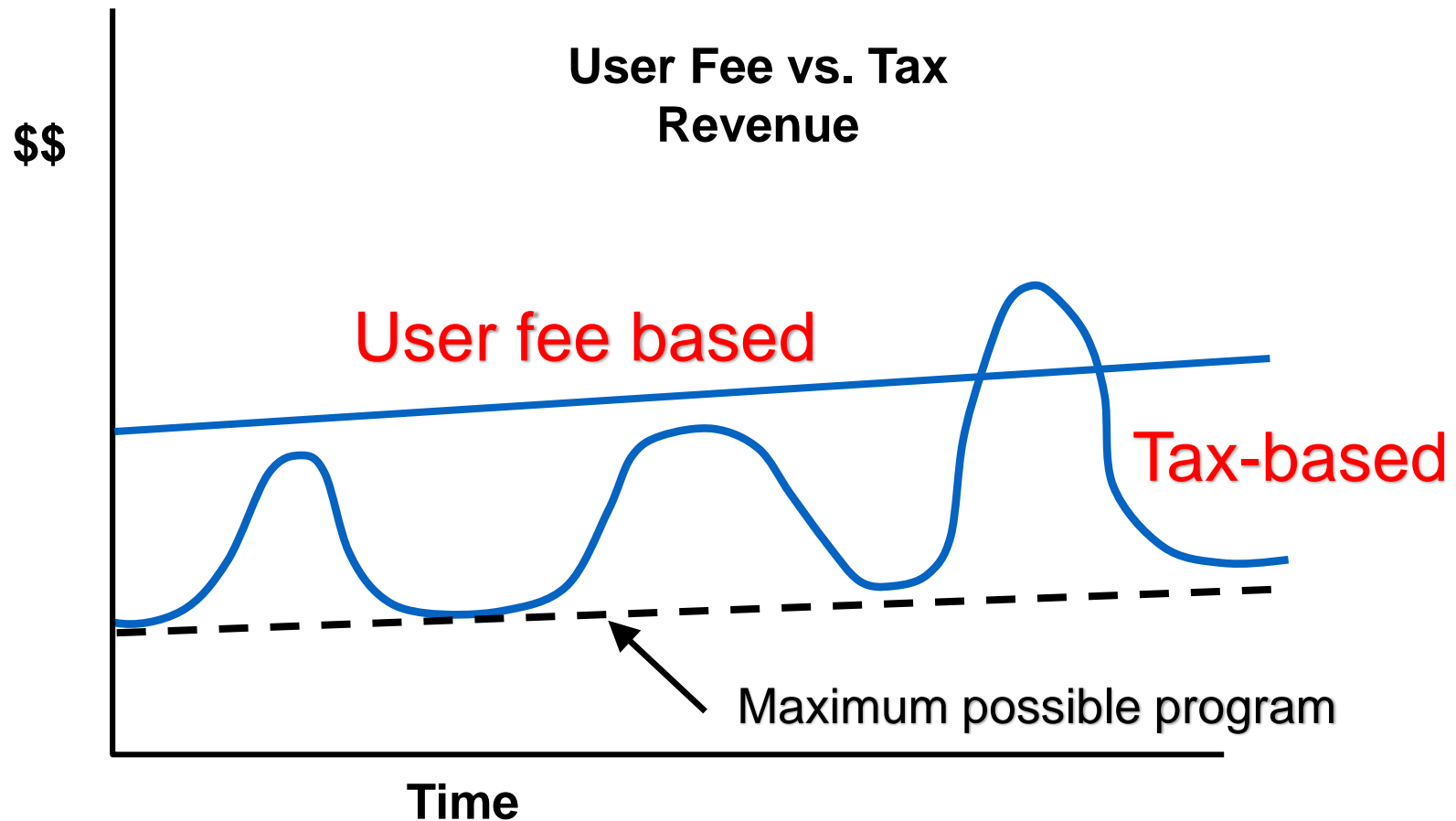
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### Key Advantages

- ▶ **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.
-

# Stormwater Utilities

## Stable Funding





# Stormwater Utilities

## *Flexible Funding Approach*

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### Flexibility Can Be Built-In

#### **A user fee design can:**

- ▶ Be a primary source of revenue for the whole program
- ▶ Be a supplement to other fees to enhance equity
- ▶ Provide credits to encourage good performance
- ▶ Adjusted annually or be set for multiple years
- ▶ Include program adjustments/changes





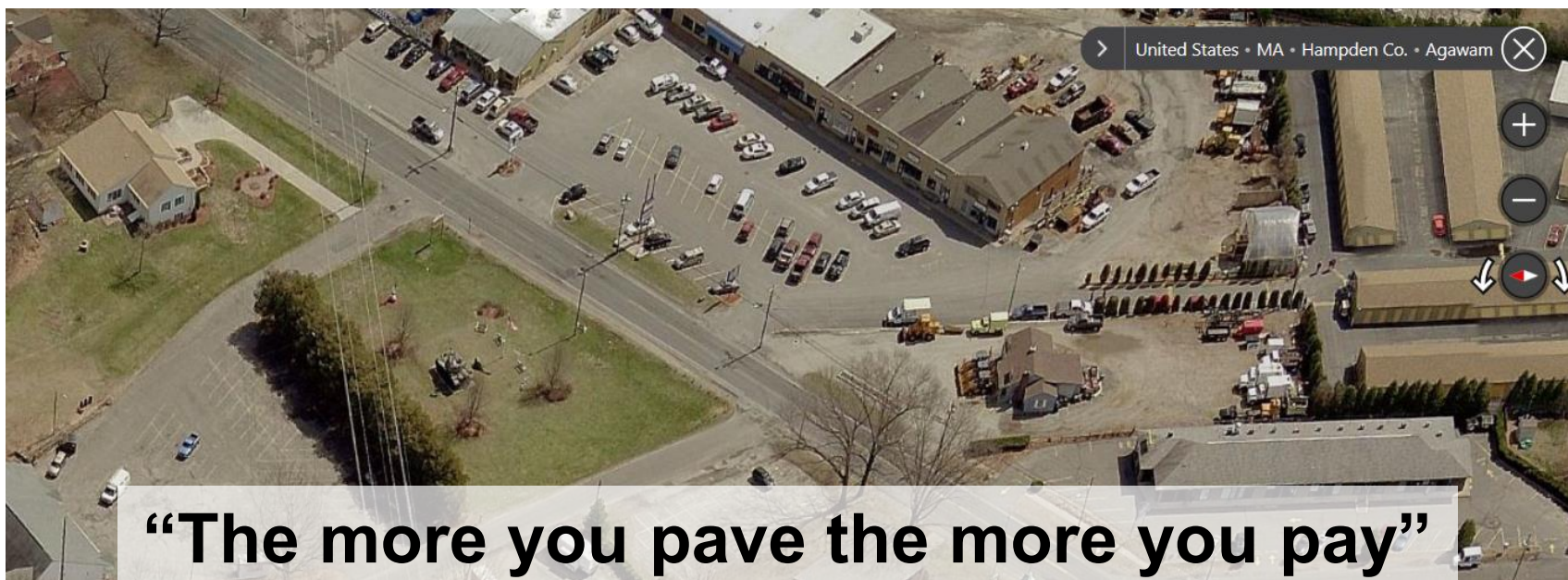
# Stormwater Utilities

## *More Equity Than Tax Approach*

Stormwater program costs are primarily driven by:

- ▶ Runoff peak flow
- ▶ Runoff volume
- ▶ Runoff pollution

*Each of these variables is directly related to impervious area*





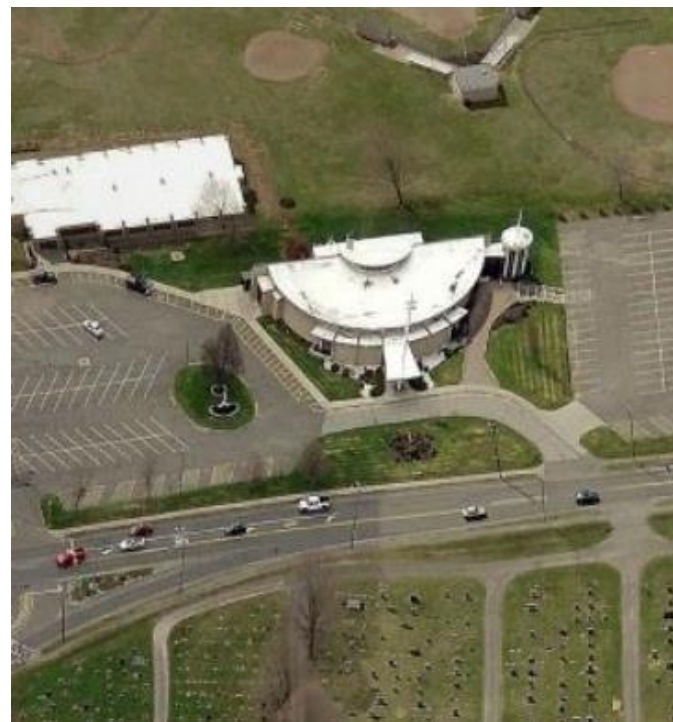
# Stormwater Utilities

## *Equity Can Be Subjective...*

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### Who may not like the concept?

- ▶ People with large paved areas and low building assessments
- ▶ Tax exempt properties
- ▶ State & federal properties
- ▶ Individuals with fixed income
- ▶ Sometimes developers don't like it – though they don't pay a fee

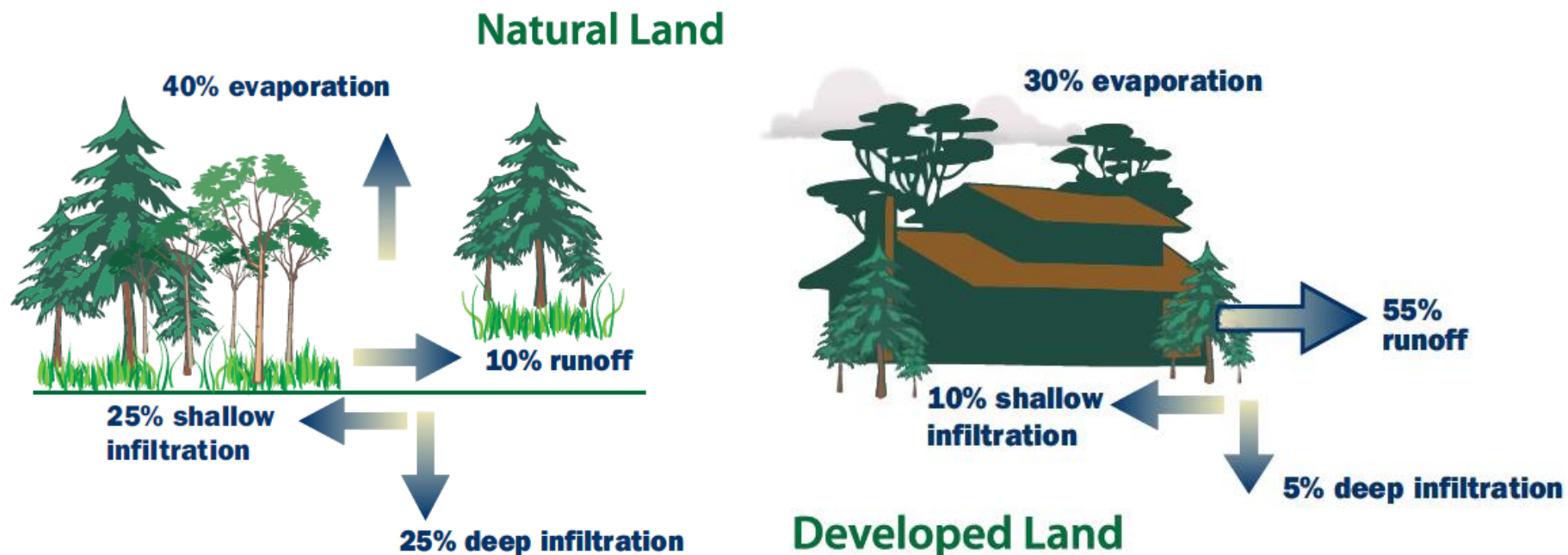




# Stormwater Utilities

## *Why Use Impervious Area to Distribute Costs?*

### Relationship Between Impervious Area and Stormwater Runoff

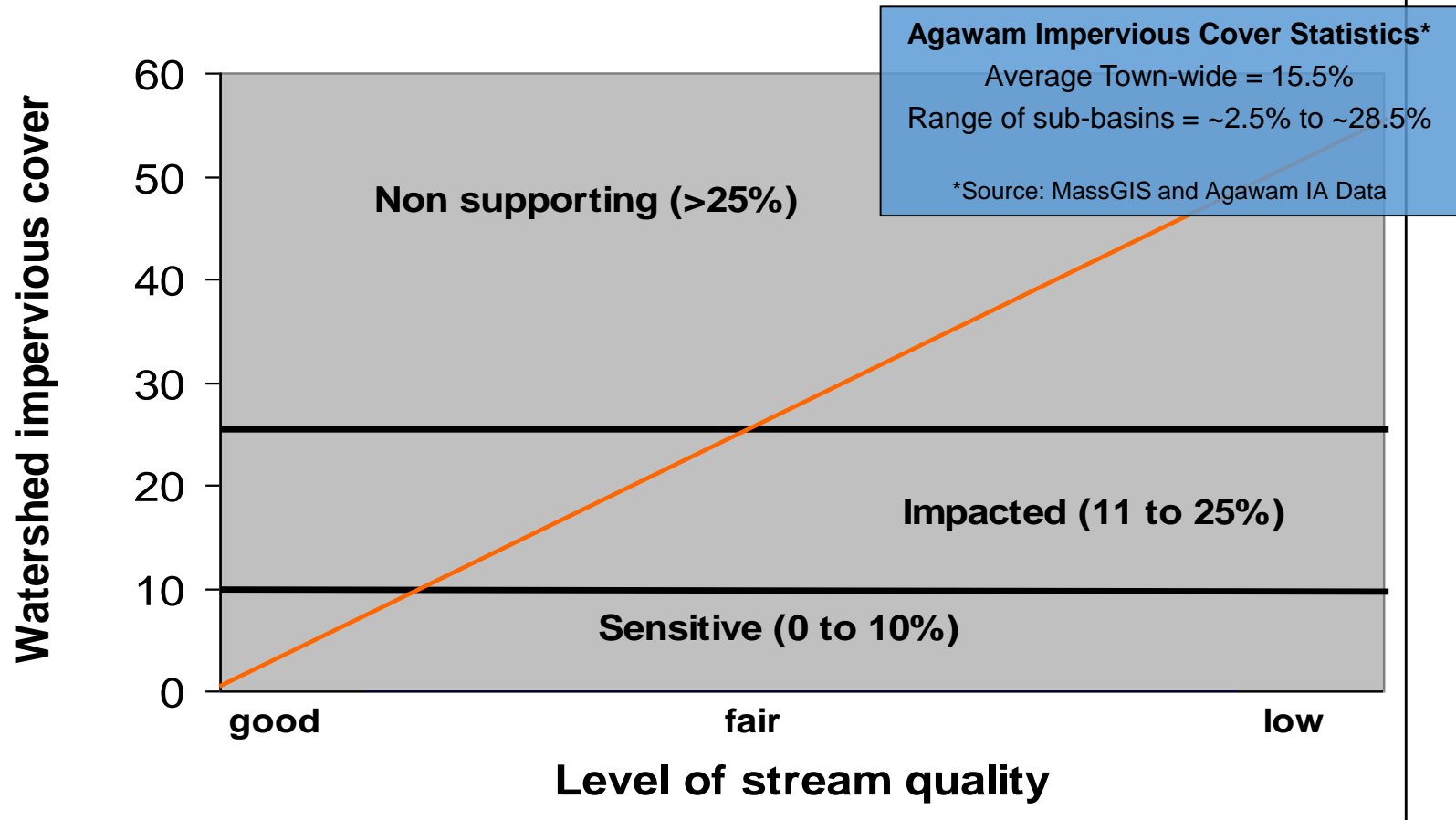


# Stormwater Utilities

## Impervious Surfaces Impact Water Quality



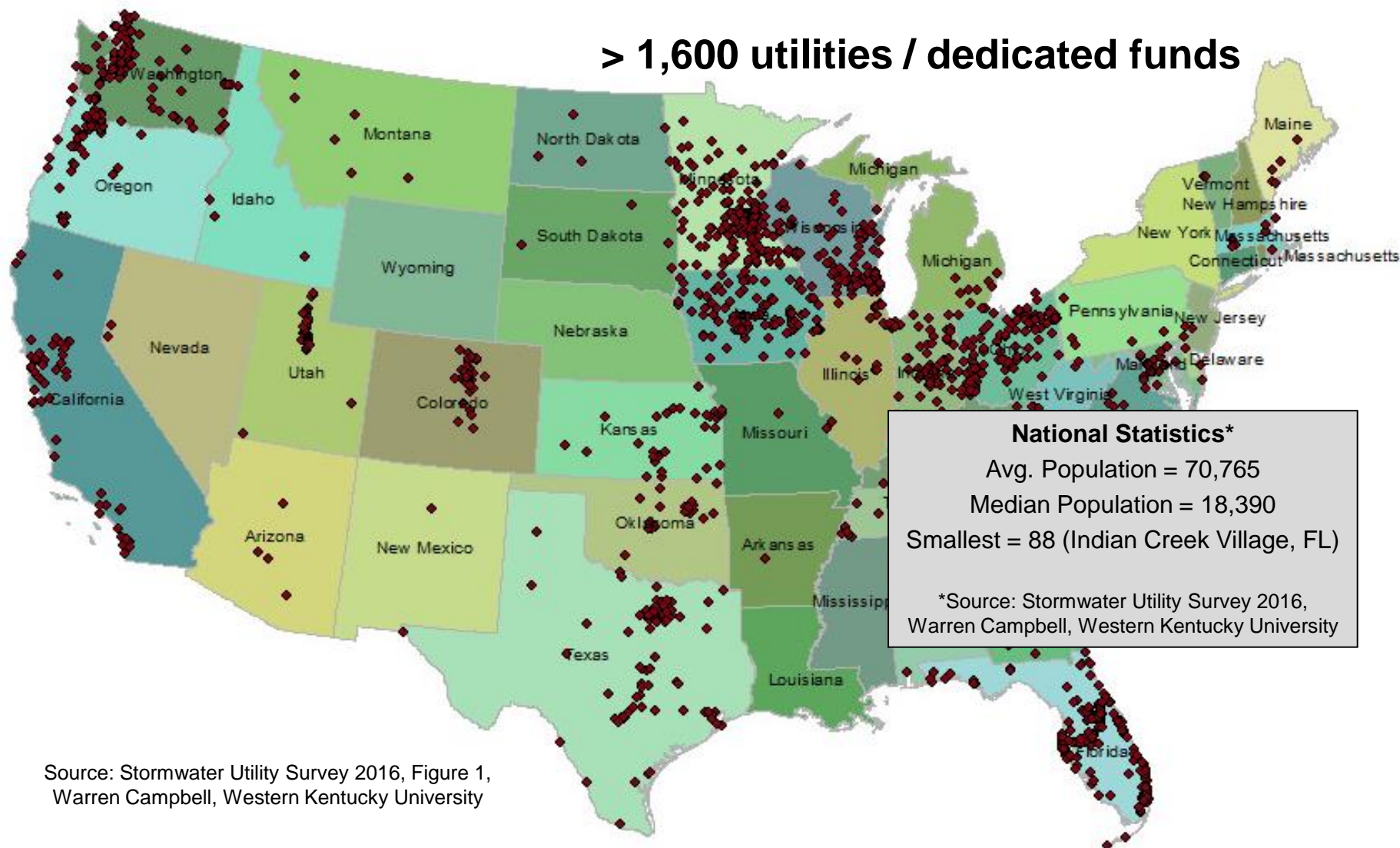
### The Impervious Cover Model



Source: Center for Watershed Protection



# National Trends for Stormwater Utilities





# Massachusetts

## *Sample Stormwater Utility Rates*

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### 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
-



# Massachusetts Utility Law

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## Primary stormwater user fee authority is contained in M.G.L. Chapter 83, Section 16:

- ▶ The aldermen of any city or the sewer commissioners, selectmen or road commissioners of a town, may from time to time **establish just and equitable annual charges for the use of common sewers and main drains and related stormwater facilities**, which shall be paid by every person who enters his particular sewer therein.
  - ▶ The money so received may be applied to the payment of the **cost of maintenance and repairs of such sewers** or of any debt contracted for sewer purposes.
  - ▶ In establishing quarterly or annual charges for the use of main drains and related stormwater facilities, the city, town, or district may either charge a uniform fee for residential properties and a separate uniform fee for commercial properties...but, **the charge shall be assessed in a fair and equitable manner**.
  - ▶ The **annual charge shall be calculated to supplement other available funds** as may be necessary to plan, construct, operate and maintain stormwater facilities and to conduct stormwater programs.
  - ▶ The city, town or district **may 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 or appropriate authority.
-



# Due Diligence Required to Ensure Compliance with State and Local laws

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*Establishing a successful stormwater utility requires that you pay attention to five key areas of due diligence:*

1. **Governance** of the utility and how it will function
  2. **Public** and political education and support
  3. **Program** concept and the compelling case for change
  4. **Funding** policies and documents
  5. **Data** development & accuracy and customer service
-



# Agawam Data Analysis

## *Impervious Cover and Parcel Analysis*

- ▶ GIS data was updated and analyzed to determine parcel boundaries and impervious area (IA).
- ▶ Aerial photography and GIS tools were used to perform an initial identification of impervious area per parcel in Agawam.
  - The analysis identified 9,179 developed parcels (having at least 200 SF of IA) with a total of 78,678,230 SF of IA



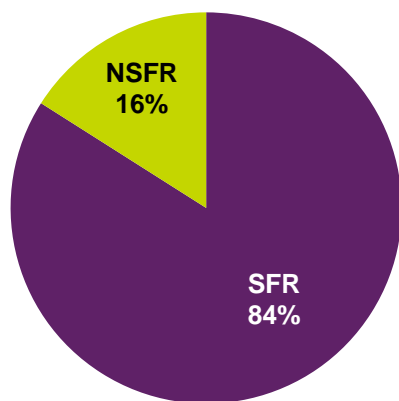


# Agawam Data Analysis

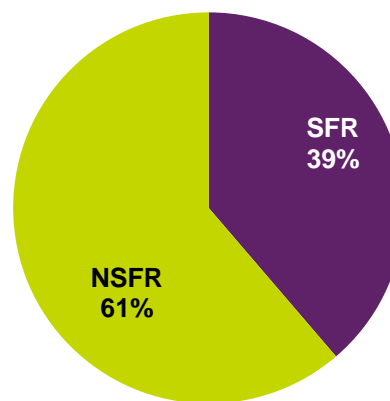
## *Impervious Cover and Parcel Analysis*

- ▶ 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





# Agawam Data Analysis

## *Preliminary Stormwater Rate Structure Options*

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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

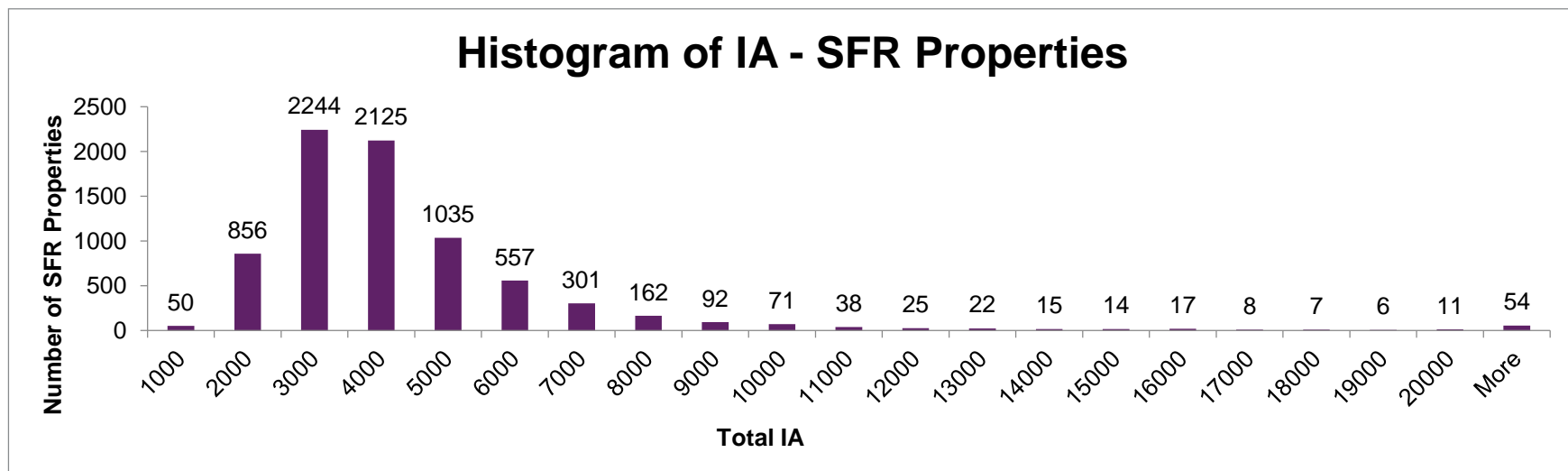


# Agawam Data Analysis

## 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*

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

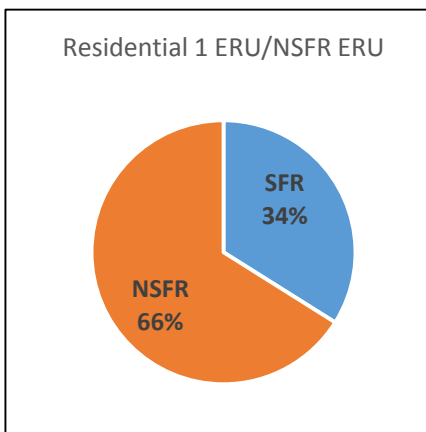
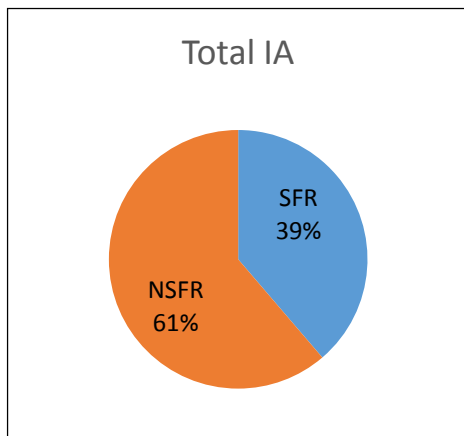
- ▶ ***For Agawam, we selected a 1,000 SF billing unit.*** This is large enough to minimize minor issues in using aerial photography to determine IA but small enough to recognize differences in property runoff impacts.
- ▶ Eliminates the need to assign land use codes to property, as all properties are 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



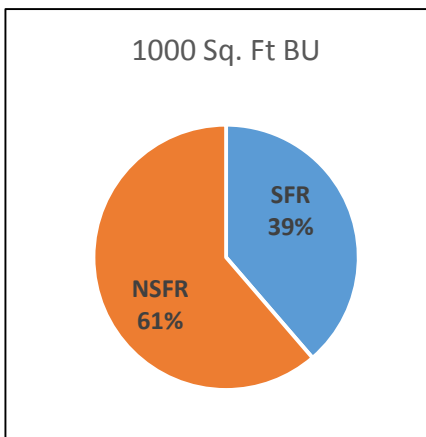
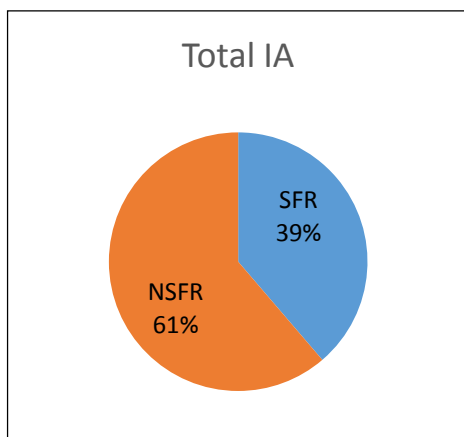
# Agawam Data Analysis

## *Preliminary Distribution of Costs*

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



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





# Agawam Data Analysis

## Potential Billing Units

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### Rate Methods and Structure: Billing Options

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	<b>22,725</b>
2. BU - Flat Rate	30,499	48,253	<b>78,702</b>

*The preliminary rate models will be run with each of these options so impacts on rate payers can be compared.*



# Agawam Data Analysis

## *Preliminary Stormwater Rate Structure Options*

---

There are multiple iterations and approaches to the basic rate structure that will be reviewed during Task Force Meeting #4.

### Popular Rate Methodologies\*:

- ▶ Impervious Area (IA) (77%)
- ▶ Gross Area with Intensity of Development Factor (14%)
- ▶ Gross Area Only (8%)
- ▶ Others: water meter size, flat rates, zoning class

*\*Source: 2016 Stormwater Utility Survey, Black & Veatch (74 participants from 24 states)*



***See handout titled “Finance and Funding Policy Considerations”***



# Break

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# Preliminary Funding Analysis:

## *Approach to Determining Stormwater Utility Revenue Needs*

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To estimate the rate that the utility would need to charge customers to support the Town's stormwater program, we must complete the following steps:

1. Determine the Level of Service (LOS) & annual costs of the program
2. In addition to direct program costs, the additional costs of operating the utility need to be determined (billing, credits, delinquencies, operating reserves)
3. Once the total annual revenue needs are determined, compare options and select a preferred rate structure and rate per billing unit.
4. The preferred approach will continue to be refined as policy and technical issues are finalized on such issues as credits, billing process and timing of implementation.



# 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.

### Agawam Storm Drain Infrastructure:

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



# Preliminary Funding Analysis

## *LOS Option A - Moderate*

Funding needs depend on the LOS to be provided:

- ▶ Preliminary future cost estimates were based on a “moderate” LOS.
- ▶ Moderate represents a doubling over the current service level and would provide for more proactive maintenance, regular system inspections, meet regulatory mandates, and include a consistent set-aside of \$250,000 a year to start to address the backlog of infrastructure repair and replacement needs.

Functional Category	FY '17	FY '18	FY '19	FY '20	FY '21	FY '22
1. Stormwater Program Administration	\$37,676	\$66,182	\$67,236	\$67,236	\$67,236	\$67,236
2. Stormwater Operations and Maintenance	\$586,799	\$1,027,446	\$1,126,618	\$1,179,723	\$1,197,723	\$1,215,723
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<b>Total</b>	<b>\$892,571</b>	<b>\$1,630,481</b>	<b>\$1,953,593</b>	<b>\$1,973,628</b>	<b>\$2,040,778</b>	<b>\$2,032,568</b>



# Preliminary Funding Analysis

## LOS Option B - Higher

For comparison purposes, cost estimates for a higher level of service were prepared:

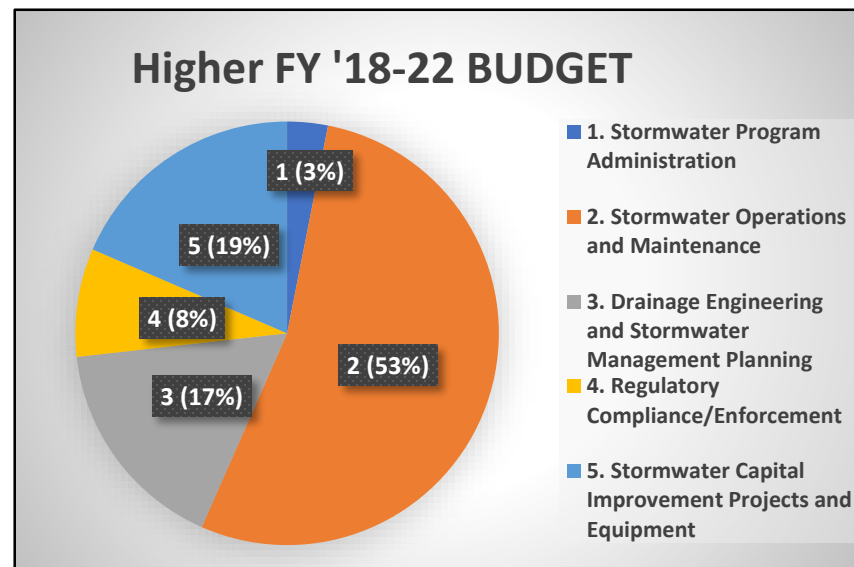
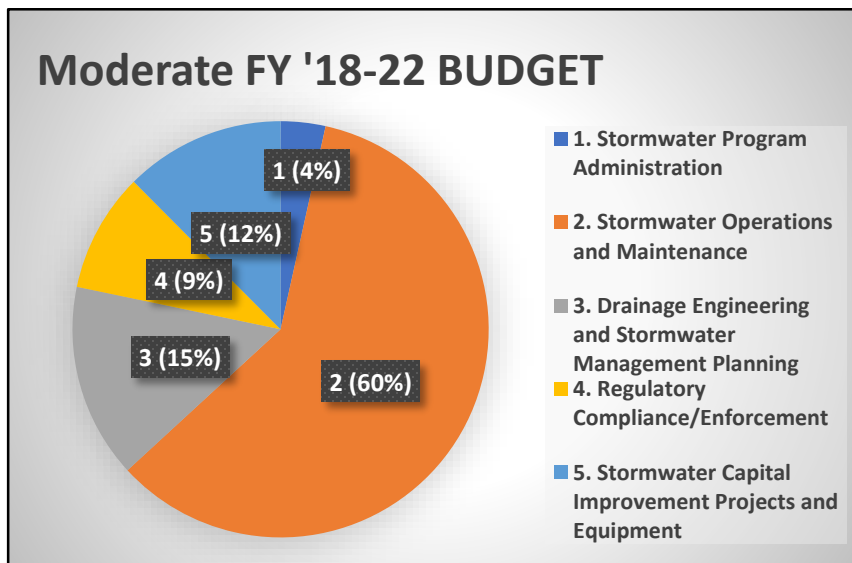
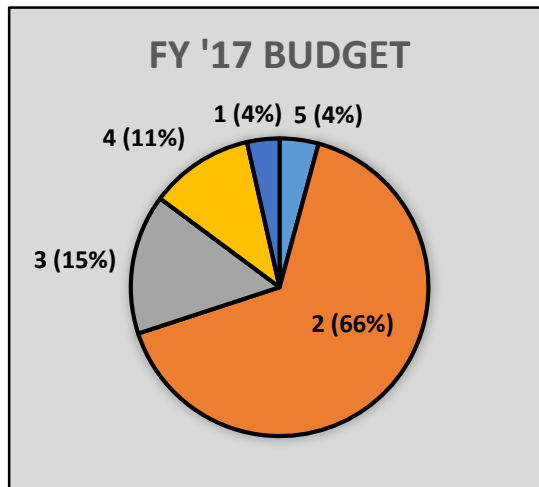
- ▶ The higher level of service represents an average increase of 2.5 times the current service level and would provide for proactive maintenance and regulatory compliance at a moderate level and adds an accelerated schedule for system inspections and capital improvement investment.
- ▶ Included in the Higher LOS is an additional \$250,000 a year for Capital Improvements (over the Moderate LOS) starting in year 3 and a new position for an engineer starting in year 2 to support inspections and capital contracts.

Functional Category	FY '17	FY '18	FY '19	FY '20	FY '21	FY '22
1. Stormwater Program Administration	\$37,676	\$66,182	\$67,236	\$67,236	\$67,236	\$67,236
2. Stormwater Operations and Maintenance	\$586,799	\$1,027,446	\$1,126,618	\$1,184,723	\$1,207,723	\$1,230,723
3. Drainage Engineering & Stormwater Management Planning	\$135,725	\$321,284	\$372,519	\$341,089	\$391,911	\$367,389
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	\$539,951	\$539,951	\$539,951
<b>Total</b>	<b>\$892,571</b>	<b>\$1,630,481</b>	<b>\$2,035,593</b>	<b>\$2,312,268</b>	<b>\$2,386,090</b>	<b>\$2,384,568</b>



# Preliminary Funding Analysis

## Moderate and Higher LOS





# Preliminary Estimate of Revenue Needs

Additional Operating costs. To estimate total revenue needs, the following financial assumptions were made:

- ▶ Credit program funded at 3% of total program costs (this is revenue dedicated to a credit program that gives credits on fees to property owners who manage on-site stormwater controls)
- ▶ 2% bad debt (delinquent accounts)
- ▶ Cost of database management, billing, collection and other stormwater fee management activities estimated at \$30,000 per year.
- ▶ Assumes 0% SBU growth rate

	Moderate LOS	Higher LOS
5-yr Average Annual Program Cost	\$1,926,209	\$2,159,800
Additional operating adjustments	\$126,310	\$137,990
<b>Total Avg. Annual Revenue Needed</b>	<b>\$2,052,519</b>	<b>\$2,297,790</b>



# 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	\$2.17/month	\$26.04
Higher LOS (\$2,297,790)	\$8.42/month	\$101.04	\$2.43/month	\$29.16



# Potential Annual Rates per Year

To generate sufficient revenue to support the Moderate and Higher LOS options, the annual rate for the ERU and Flat Rate options will increase over the projected planning period from FY18-FY22, as shown below.

Moderate LOS	FY 18	FY 19	FY 20	FY 21	FY 22	5-Yr Average
Annual Revenue Need	\$1,742,005	\$2,081,273	\$2,102,309	\$2,172,817	\$2,164,196	\$2,052,519
Annual Rate per ERU (3,250)	\$76	\$91	\$92	\$95	\$95	\$90
Annual Rate per Flat Fee (1,000 SF)	\$22	\$26	\$26	\$27	\$27	\$26

Higher LOS	FY 18	FY 19	FY 20	FY 21	FY 22	5-Yr Average
Annual Revenue Need	\$1,742,005	\$2,167,373	\$2,457,881	\$2,535,395	\$2,533,796	\$2,297,790
Annual Rate per ERU (3,250)	\$76	\$95	\$108	\$111	\$111	\$101
Annual Rate per Flat Fee (1,000 SF)	\$22	\$27	\$31	\$32	\$32	\$29



# Preliminary Funding Analysis

## *Financial Impacts on Sample Properties*

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Upcoming examples do not include:

- ▶ Potential credits that properties may obtain
- ▶ Tax obligation for existing program (already paying for existing through taxes)
  - preliminary fees represent existing and future costs
- ▶ Fee versus tax comparisons are provided at the end





# Preliminary Funding Analysis

## Tax Versus Fee

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**Estimated Revenue from Real Property Tax (2017): \$57,860,000**

**Tax rates: Residential \$16.31/1000 and Commercial \$31.12/1000**

**Tax increase to fund increased program entirely from property tax**

*(note: tax exempt properties would not pay under this scenario)*

- ▶ Moderate LOS (\$1,926,209 - \$892,571) = \$1,033,638      +1.8%
- ▶ Higher LOS (\$2,159,800 - \$892,571) = \$1,267,329      +2.2%

**Potential tax decrease if current program costs (\$892,571) is funded by fee:      -1.5%**

← This is a preliminary estimate and will change based on final funding policies (decisions) by the Town and fees assessed for public properties.



# Preliminary Funding Analysis

## *Financial Impacts on Sample Properties*

### Single Family Home -

### Morningside Circle

### Estimated Impervious Area

- ▶ 2,889 SF

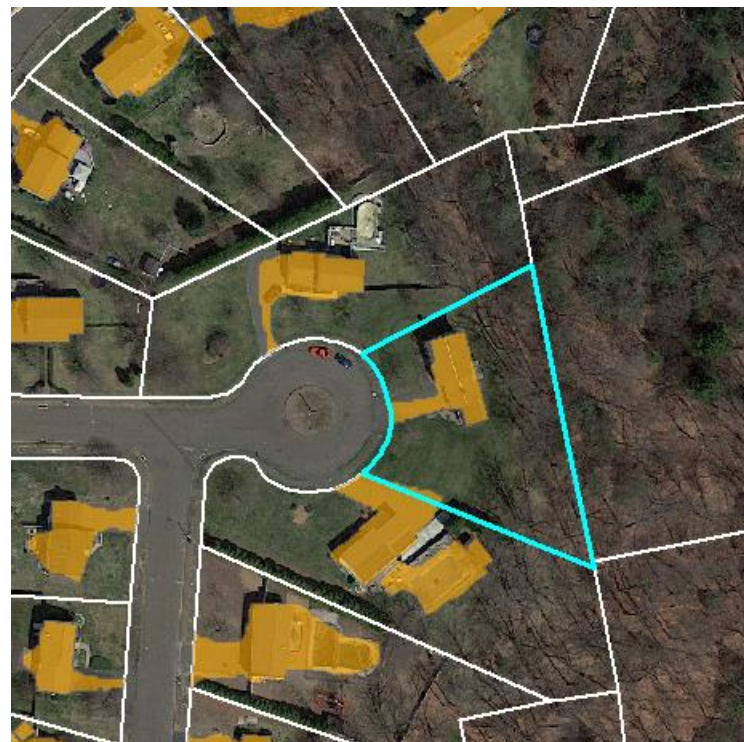
### Preliminary Annual Range of Rates:

### Option 1 (ERU – 3,250 SF)

- ▶ Moderate LOS - \$90.36
- ▶ Higher LOS - \$101.04

### Option 2 (1,000 SF BU)

- ▶ Moderate LOS -  $\$26.04 \times 3 = \$78.12$
- ▶ Higher LOS –  $\$29.16 \times 3 = \$87.48$





# Preliminary Funding Analysis

## *Financial Impacts on Sample Properties*

### Single Family Home -

### North West St

#### Estimated Impervious Area

- ▶ 2,823 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 -  $\$26.04 \times 3 = \$78.12$
- ▶ Higher LOS -  $\$29.16 \times 3 = \$87.48$





# Preliminary Funding Analysis

## *Financial Impacts on Sample Properties*

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### Single Family Home -

#### Colemore St

#### Estimated Impervious Area

- ▶ 4,797 SF

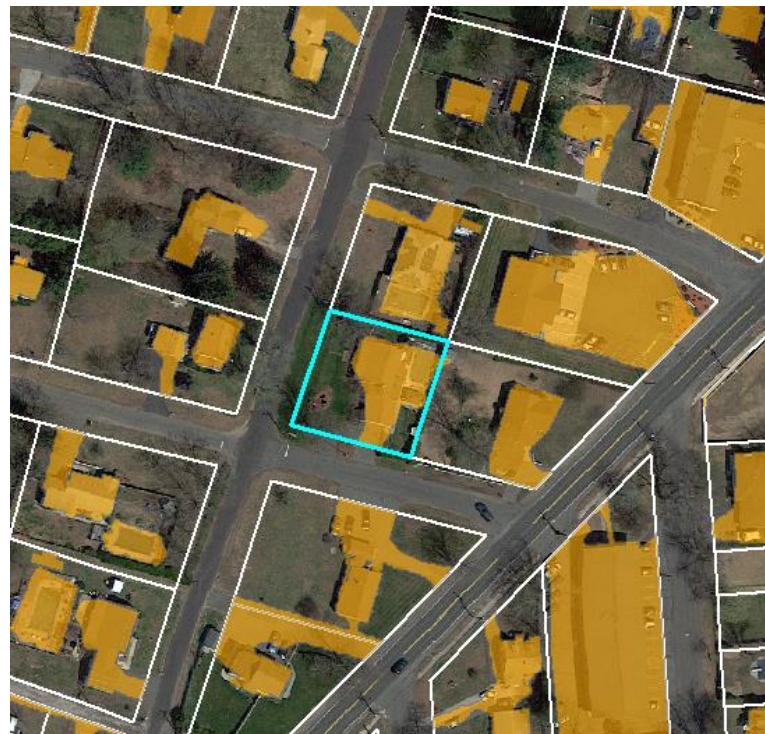
#### Preliminary Annual Range of Rates:

#### Option 1 (ERU – 3,250 SF)

- ▶ Moderate LOS - \$90.36
- ▶ Higher LOS - \$101.04

#### Option 2 (1,000 SF BU)

- ▶ Moderate LOS -  $\$26.04 \times 5 = \$130.20$
- ▶ Higher LOS -  $\$29.16 \times 5 = \$145.80$





# Preliminary Funding Analysis

## *Financial Impacts on Sample Properties*

### Single Family Home -

### Alexander Drive

#### Estimated Impervious Area

- ▶ 4,377 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 -  $\$26.04 \times 4^* = \$104.16$
- ▶ Higher LOS -  $\$29.16 \times 4 = \$116.64$

*\*assumes rounding to nearest whole number*





# Preliminary Funding Analysis

## *Financial Impacts on Sample Properties*

### Tax-Exempt Property- Feeding Hills Church

#### Estimated Impervious Area

- ▶ 40,899 SF

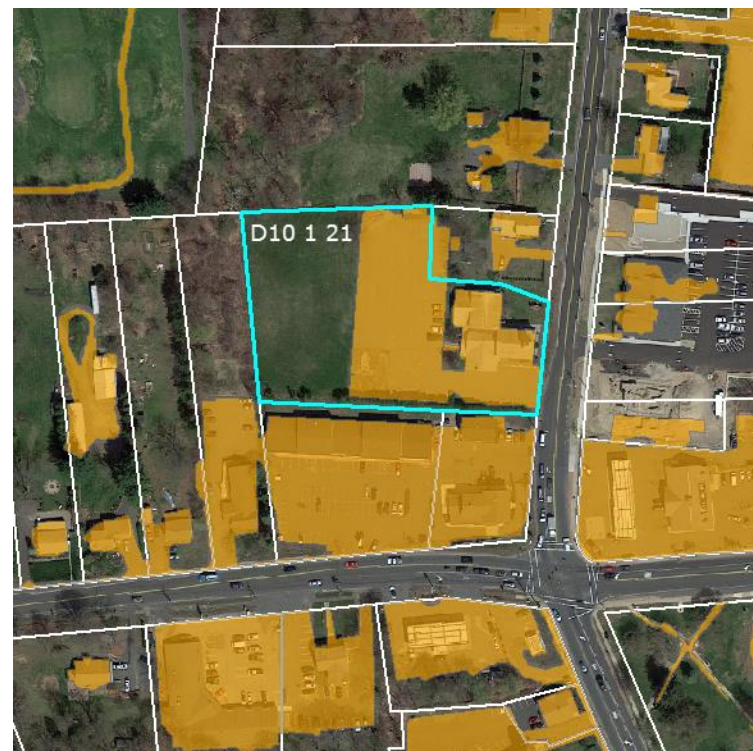
#### Preliminary Annual Range of Rates:

##### Option 1 (ERU – 3,250 SF)

- ▶ Moderate LOS -  $\$90.36 \times 13 = \$1,174.68$
- ▶ Higher LOS -  $\$101.04 \times 13 = \$1,313.52$

##### Option 2 (1,000 SF BU)

- ▶ Moderate LOS -  $\$26.04 \times 41 = \$1,067.64$
- ▶ Higher LOS -  $\$29.16 \times 41 = \$1,195.56$





# 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 -  $\$90.36 \times 15 = \$1,355.40$
- ▶ Higher LOS -  $\$101.04 \times 15 = \$1,515.60$

#### Option 2 (1,000 SF BU)

- ▶ Moderate LOS -  $\$26.04 \times 47 = \$1,223.88$
- ▶ Higher LOS -  $\$29.16 \times 47 = \$1,370.52$





# Preliminary Funding Analysis

## *Financial Impacts on Sample Properties*

### Commercial Property -

#### Sarat Ford

#### Estimated Impervious Area

- ▶ 142,996 SF

#### Preliminary Annual Range of Rates:

#### Option 1 (ERU – 3,250 SF)

- ▶ Moderate LOS -  $\$90.36 \times 44 = \$3,975.84$
- ▶ Higher LOS -  $\$101.04 \times 44 = \$4,445.76$

#### Option 2 (1,000 SF BU)

- ▶ Moderate LOS -  $\$26.04 \times 143 = \$3,723.72$
- ▶ Higher LOS -  $\$29.16 \times 143 = \$4,169.88$





# Preliminary Funding Analysis

## *Financial Impacts on Sample Properties*

### Commercial Property -

#### KP Hood (2 parcels)

#### Estimated Impervious Area

- ▶ 509,385 SF

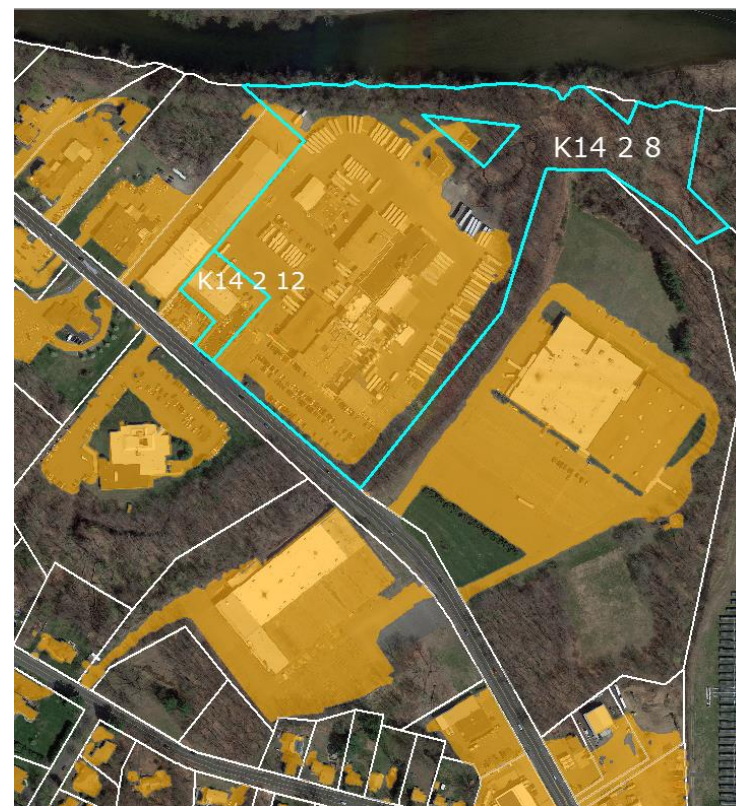
#### Preliminary Annual Range of Rates:

#### Option 1 (ERU – 3,250 SF)

- ▶ Moderate LOS -  $\$90.36 \times 157 = \$14,186.52$
- ▶ Higher LOS -  $\$101.04 \times 157 = \$15,863.28$

#### Option 2 (1,000 SF BU)

- ▶ Moderate LOS -  $\$26.04 \times 509 = \$13,254.36$
- ▶ Higher LOS -  $\$29.16 \times 509 = \$14,842.44$





# Preliminary Funding Analysis

## *Financial Impacts on Sample Properties*

### Commercial Property -

### Six Flags

#### Estimated Impervious Area

- ▶ 2,414,275 SF

### Preliminary Annual Range of Rates:

#### Option 1 (ERU – 3,250 SF)

- ▶ Moderate LOS -  $\$90.36 \times 743 = \$67,137$
- ▶ Higher LOS -  $\$101.04 \times 743 = \$75,072$

#### Option 2 (1,000 SF BU)

- ▶ Moderate LOS -  $\$26.04 \times 2,414 = \$62,860$
- ▶ Higher LOS -  $\$29.16 \times 2,414 = \$70,392$



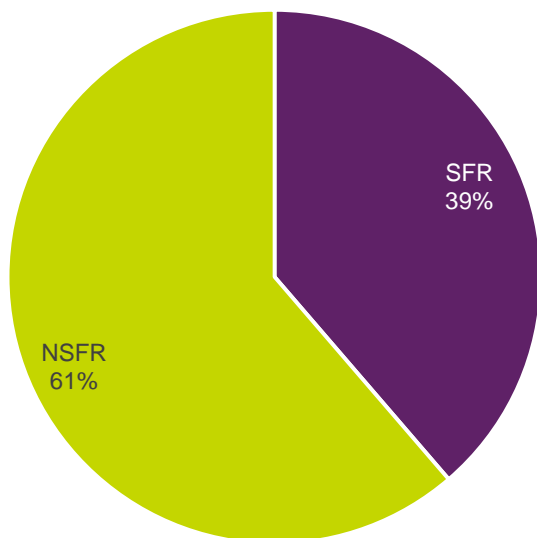


# Preliminary Funding Analysis

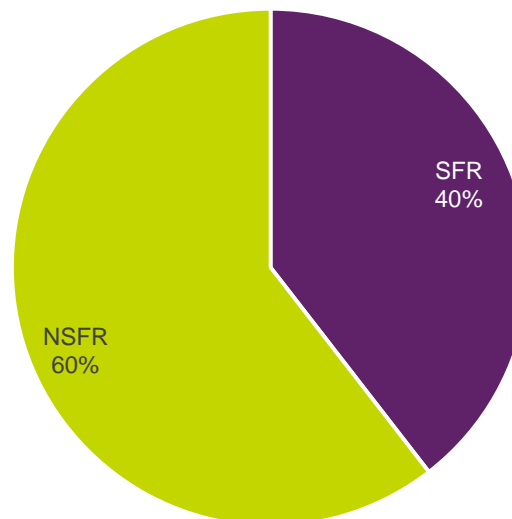
## Tax Versus Fee

### Revenue Distribution

**1,000 sf IA Basis**



**SW Based on Property Value**



Revenue is the same from both property classes under each funding approach, but the 1,000 sf basis (stormwater utility) does not consider property value and recognizes differences in properties and their runoff. Also, every property pays under a stormwater utility.



# Preliminary Funding Analysis

## *Tax Versus Fee – Residential Example*

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**Typical single-family home in Agawam valued at approximately \$250,000 and has 3,250 SF of IA**

### Stormwater Fee

Preliminary Estimate of fees

- ▶ Moderate LOS program - \$78-\$90 per year
- ▶ Higher LOS program - \$88 - \$101 per year
- ▶ Plus potential tax savings of 1.5% or \$61.16

### Property Tax

Current property tax on \$250,000 = \$4,077 per year

1.8% increase = +\$73.40 (moderate LOS)

2.2% increase = +\$89.69 (higher LOS)



# Preliminary Funding Analysis

## Tax Versus Fee - Commercial

**Varies Widely - Depends on footprint, number of stories, and value**

### Allied Floor

Tax value = \$552,500

IA = 47,402 SF

#### Stormwater Fee

Preliminary estimate of fees

- ▶ Moderate LOS program = \$1,223 to \$1,355 /yr
- ▶ Higher LOS program = \$1,370 to \$1,515 /yr
- ▶ Plus potential tax savings of 1.5% or \$258

#### Property Tax

Current property tax on \$552,500 = \$17,194 per year

1.8% increase = +\$309

2.2% increase = +\$378

### County Manor Apts.

Tax value = \$3,347,700

IA = 51,612 SF

#### Stormwater Fee

Preliminary estimate of fees

- ▶ Moderate LOS program = \$1,354 to \$1,445 /yr
- ▶ Higher LOS program = \$1,516 to \$1,616 /yr
- ▶ Plus potential tax savings of 1.5% or \$1,562

#### Property Tax

Current property tax on \$3,347,700 = \$104,180 per year

1.8% increase = +\$1,875

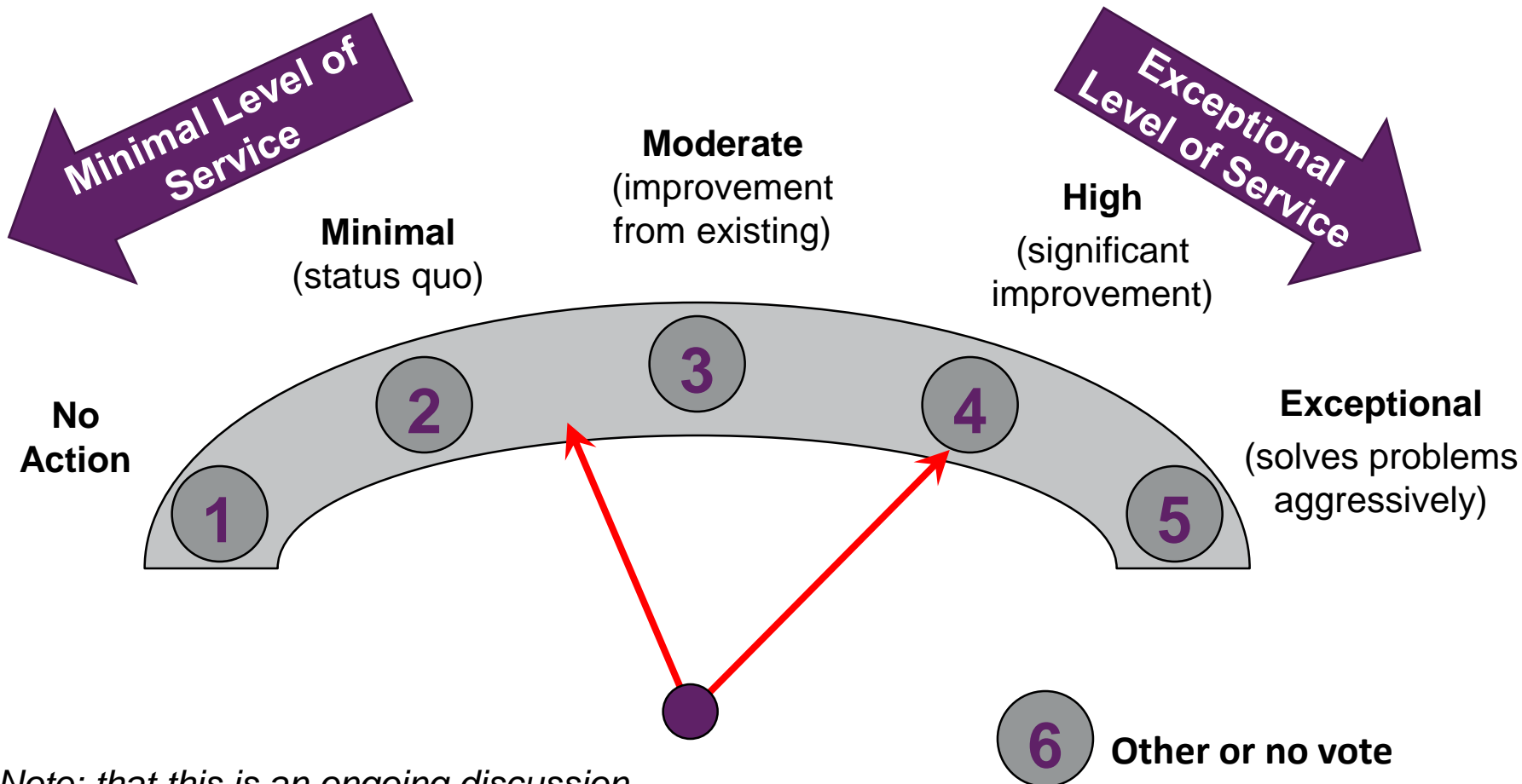
2.2% increase = +\$2,292



# Future Stormwater Program

## Levels of Service

Based on what I've seen, my feelings on the appropriate level of service are...



*Note: that this is an ongoing discussion...*



# Public Engagement Update

 **Town of Agawam** MASSACHUSETTS

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GOVERNMENT DEPARTMENTS PUBLIC SAFETY BOARDS & COMMISSIONS SCHOOLS LINKS

  
Phelps School

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**DEPARTMENTS**

- Town Staff
- Animal Control
- Assessor
- Auditor
- Building Maintenance
- Clerk
- COA / Senior Center
- Engineering
- Health / School Nursing
- Inspection Services
- IT Department

**Citizen Stormwater Advisory Task Force**

The purpose of the Stormwater Task Force is to explore the stormwater management program for the Town of Agawam and identify its major needs, priorities, and costs. The costs for the stormwater program are going to increase in the next few years to address known problems, aging infrastructure, and increases in the U.S. EPA NPDES MS4 Permit requirements to develop a more comprehensive stormwater management program.

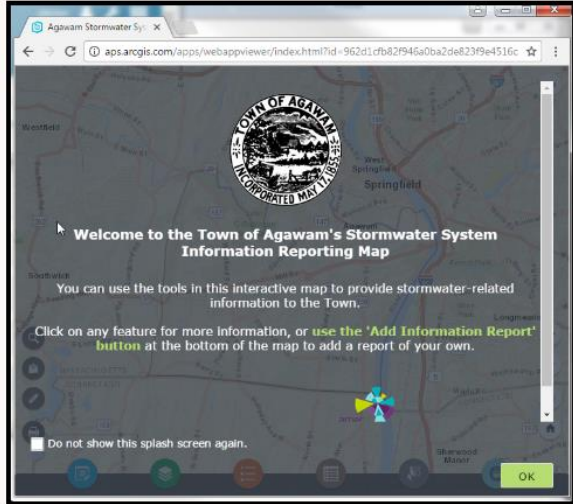
Currently, stormwater costs are funded through the general fund (taxes). Another approach is to fund stormwater related expenses by treating the stormwater system like a utility (such as a water or sewer utility) with a dedicated enterprise fund and revenue from user fees. The current study "Town of Agawam Stormwater System Assessment and Utility/Fee Planning Project" is intended to explore this funding approach through a series of meetings with the Task Force.

At the bottom of the page are materials and summaries from the regular Task Force meetings. These meetings are open to the public with four future meetings planned, as well as two or three broader public meetings before the end of 2017. The purpose of these meetings is to present the stormwater program's needs to the community and listen to their comments and suggestions (Dates/Times: TBD).

Members of the Stormwater Advisory Task Force are:

City Councilors James Cichetti, Christopher Johnson, and Robert Rossi, Former Mayor Susan Dawson, Resident Herbert Holl, Reverend Rob Donaldson, Conservation Commissioner Henry Kosloski, Allied Flooring and Paint Owner Mario Tedeschi, Six Flags New England Facilities Manager Dave Jenks, Public Works Superintendent Chris Golba, and Town Engineer Michelle Chase.

**Agawam Stormwater System - Information Reporting Map**



**Welcome to the Town of Agawam's Stormwater System Information Reporting Map**

You can use the tools in this interactive map to provide stormwater-related information to the Town.

Click on any feature for more information, or use the 'Add Information Report' button at the bottom of the map to add a report of your own.

Do not show this splash screen again. [OK]

**Instructions:**

- Once you open the [web page](#), click ok to begin.
- Hover your pointer over the functions at the bottom of the screen.
- The first icon is used to add information.
- Click on the "Add Information" icon.
- Choose one of the topics that best fits the stormwater issue or information that you wish to add.
- Click the location on the map.
- Use the drop-down menus to populate the information. Provide additional description if necessary.
- Name and contact information is optional and attachments (photos) are helpful.

**Task Force Meeting Materials and Summaries**

Meeting 1 - April 26, 2017

- Agenda
- Presentation
- Notes

Meeting 2 - June 7, 2017

- Agenda
- Presentation
- Notes

Press Release - June 15, 2017



# Next Steps

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- ▶ Refine Future Program, Costs, and Rate Structure
  - Consider rate options and modifiers, including credits
  
- ▶ Data and Revenue Analysis
  - Refine analysis
  - Evaluate billing system options
  
- ▶ Public Engagement
  - Build engagement plan
  
- ▶ Task Force Meeting #4 – early September 2017