

Proposed Stormwater Management Fee: Staff Recommended Framework

October 17, 2016

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Poll Questions

1. Do you live, work or own a business in the City?
2. Have you heard of Eco-City Alexandria before?
3. If so, do you know what kind of things are in the Action Plan?
4. Are you interested in water quality issues?
5. Have you heard about the Chesapeake Bay cleanup mandates?

Why Are We Here?

Respond to state and federal mandates in equitable, fiscally responsible manner.

- Protect and improve the City's waterways and reduce flooding impacts
- Alternative funding to meet increasing cost of stormwater mandates
- May free up General Fund support for other programs/projects
- Not a question of if we're funding the mandates, but what is the best way to fund the mandates

What is Stormwater Runoff?



ECO-CITY ALEXANDRIA

Only **Rain** Down the Storm Drain!





City's Stormwater Program Timeline

- 1970s: Stormwater detention required
- 1992: Chesapeake Bay Act
- 2003: City's first Municipal Separate Storm Sewer System (MS4) permit
- 2010: Chesapeake Bay TMDL (Total Maximum Daily Load)
 - Set nutrient and sediment 'pollution budget' or 'clean up mandates'
- 2013: Chesapeake Bay TMDL clean up mandates enforced in MS4 permit

City's Stormwater Management Program

- Stormwater Quality
- Flooding Protection and Drainage
- Chesapeake Bay TMDL Cleanup Mandates



Stormwater Management Program Video



Stormwater Management Program



Catch basin cleaning, Prince Street



BMP Inspection, Fire Station 206



Plan Review



Channel maintenance, Cameron Run

Stormwater Management Program



Cameron Run flooding



Improper concrete washout



Flood warning sign and lights

Stormwater Management Program Recognition



Chesapeake Bay Background

- Nitrogen, Phosphorous & Sediment impairments
- Creates algae blooms, fish kills, impacts submerged aquatic vegetation – Dead Zones
- Impacts recreation, fishing, habitat





Chesapeake Bay TMDL Cleanup Mandates

- Will require nearly $\frac{1}{4}$ of the City to be retrofitted for stormwater treatment

<i>MS4 Permit Cycle</i>	Portion of Total Reductions	Approx. Acres
Phase I (2013 - 2018)	5%	120 - 130
Phase II (2018 - 2023)	35%	660
Phase III (2023 - 2028)	60%	1,450
Total All Phases	100%	2,140

Stormwater Infrastructure Projects



Wet Pond, Parc Meridian



Green Roof, Duncan Library



Bioswale, Glebe Road



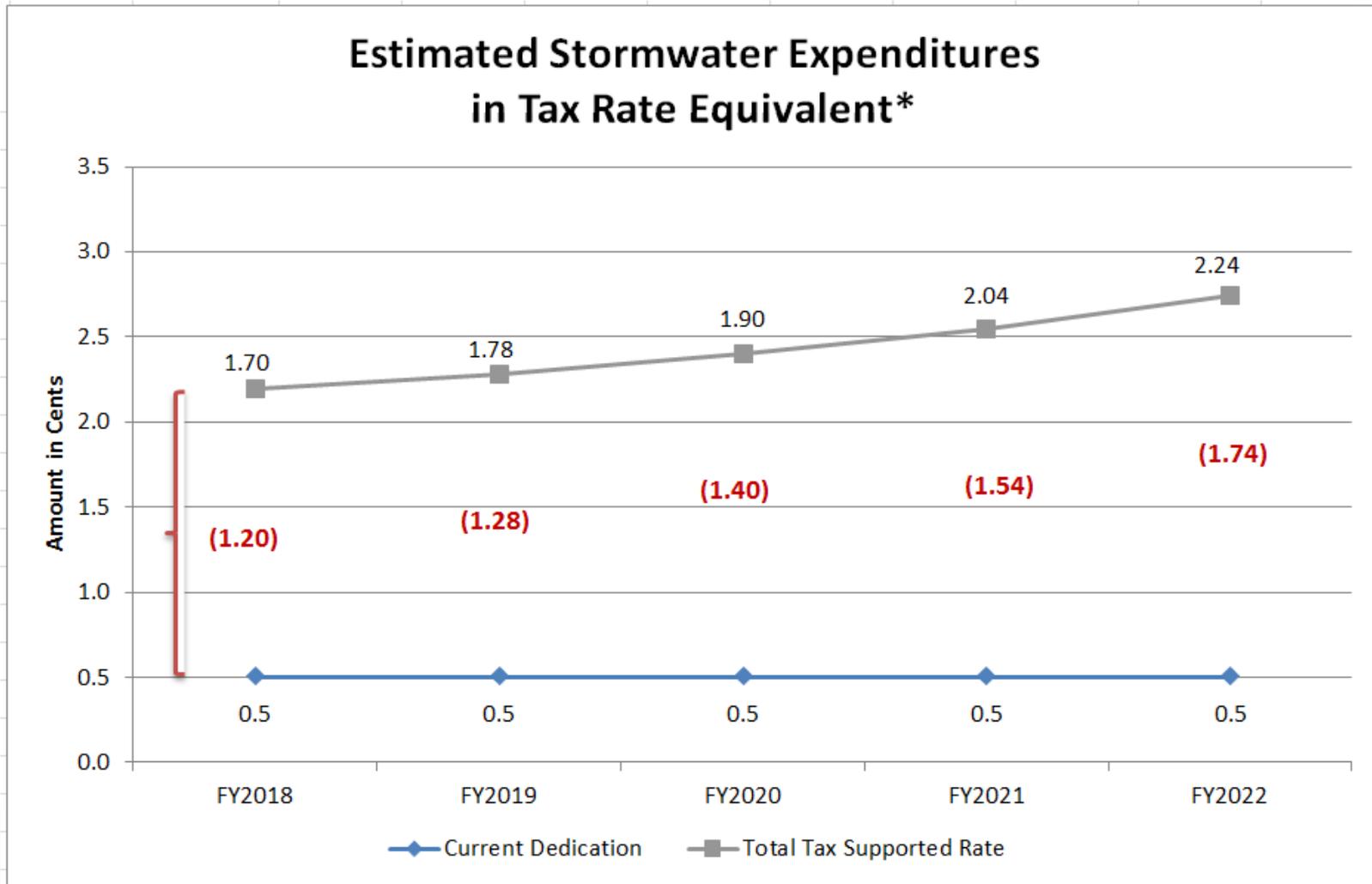
Permeable Pavers and Bioretention Cell, 4MR Park



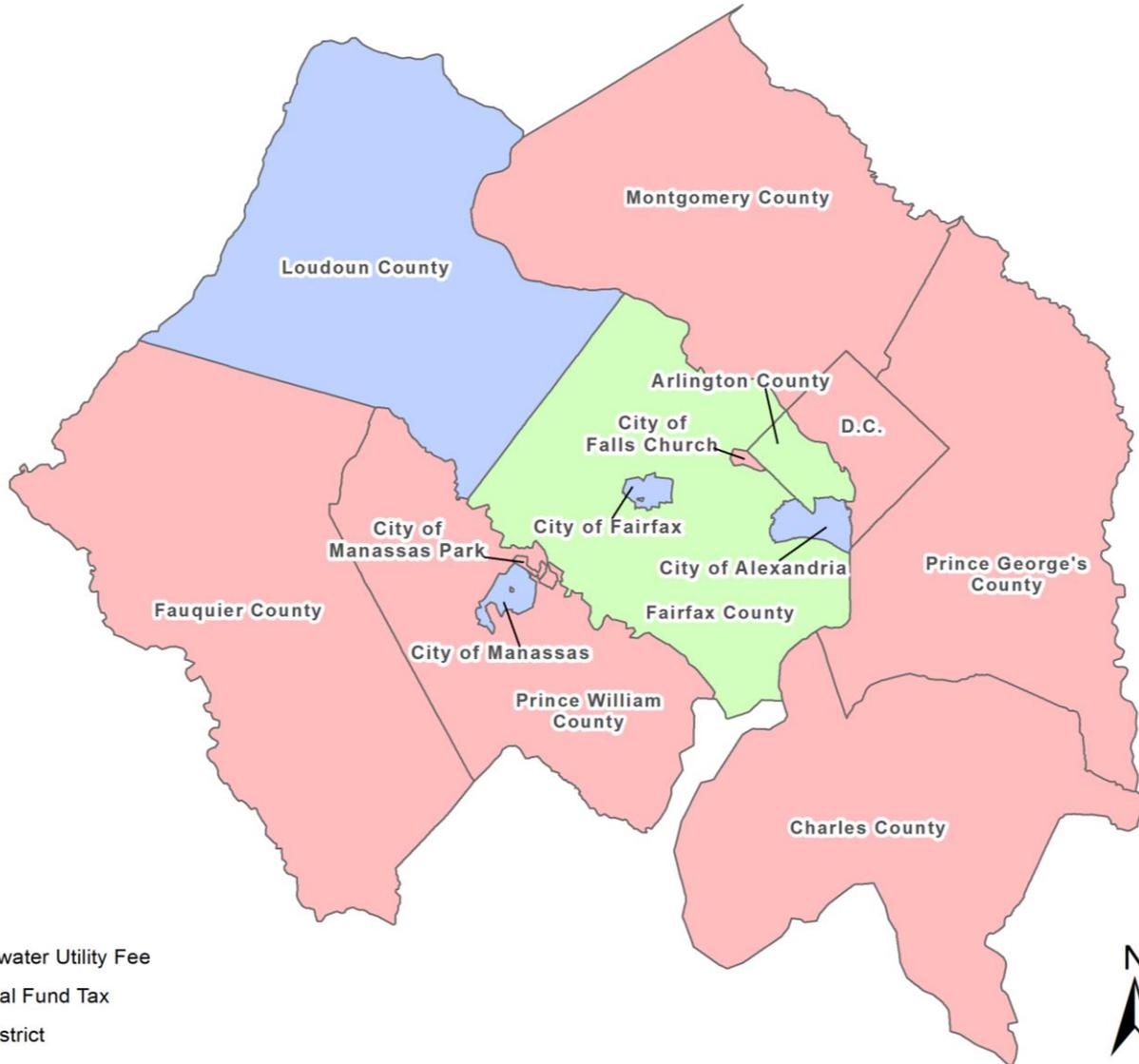
Current Stormwater Funding

- 0.5 cent Real Estate Tax rate dedication
- Additional General Fund contribution
 - Equivalent to an additional 1.2 cents on the Real Estate Tax rate for FY 2018
- Non-City funding sources
 - State Stormwater Local Assistance Fund (SLAF) Grant

Estimated Tax Rate Impact



Regional Stormwater Funding



Legend

-  Stormwater Utility Fee
-  General Fund Tax
-  Tax District





Stormwater Utility Basics

- Virginia enabling legislation – 1992
- Fee for service, not a tax
- Dedicated funding source
- Revenue can only be used for stormwater
- Based on a property's impervious area
- Consistent with Eco-City goals

- **Stable**
- **Adequate**
- **Flexible**
- **Equitable**



Focus of Staff Recommendations

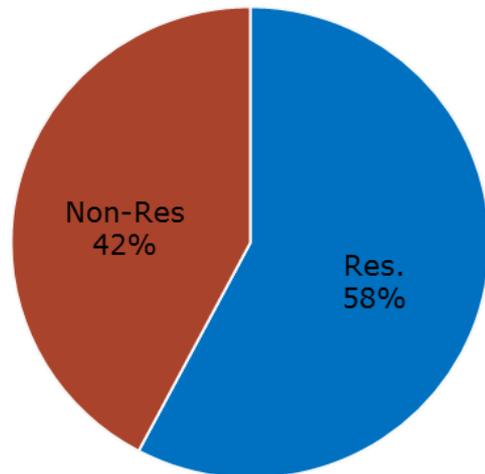
- Council directed staff to create draft framework
- Capture stormwater program costs
- Create equitable stormwater funding
- Minimize administrative cost
- Maximize understandability

Proposed Fee Framework

- Fee Structure
- Fee Reduction / Credit Policy
- Billing Method

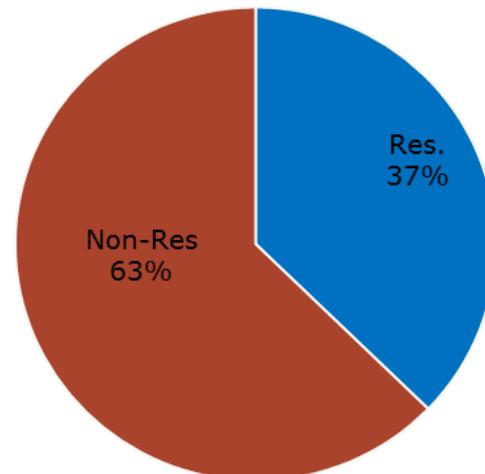
Tax Rate vs. Fee Funding: Creating Equity

Existing SWM Tax Burden



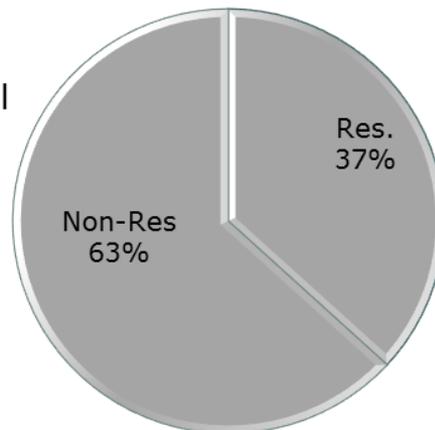
■ Residential ■ Non-Residential

Proposed SWU Burden



■ Residential ■ Non-Residential

City-Wide Impervious Area Distribution



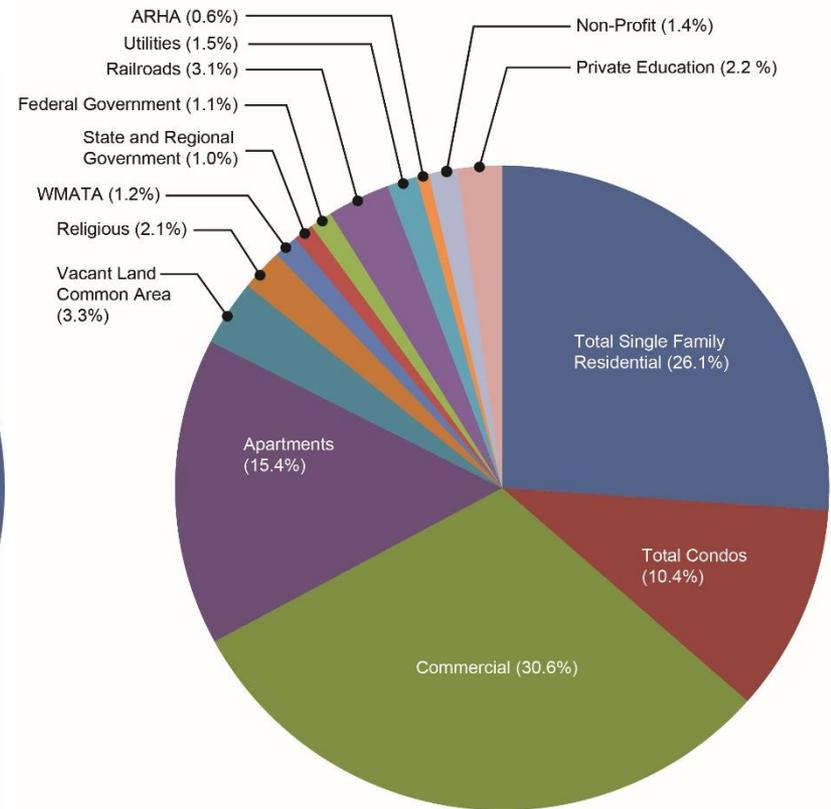
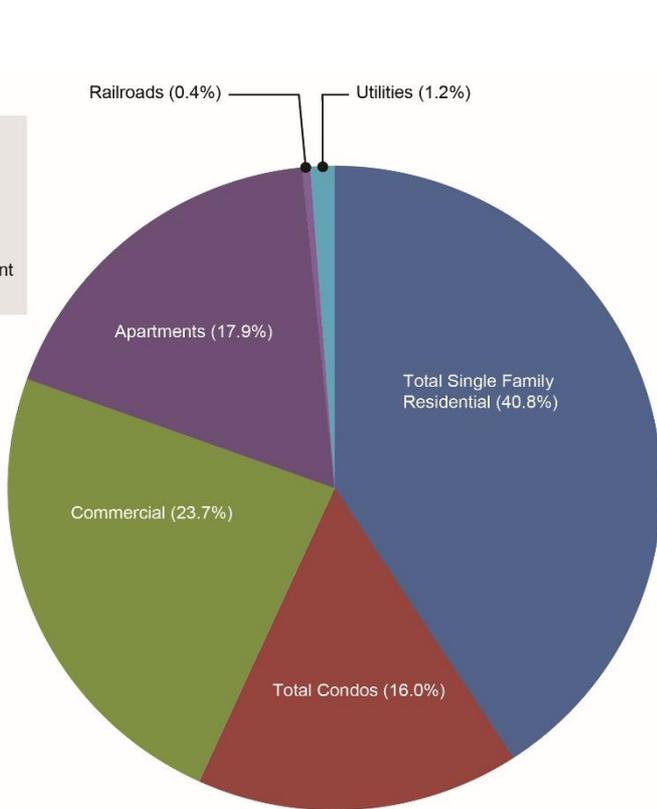
■ Residential ■ Non-Residential

Tax Rate vs. Impervious Contribution

Tax Rate Distribution

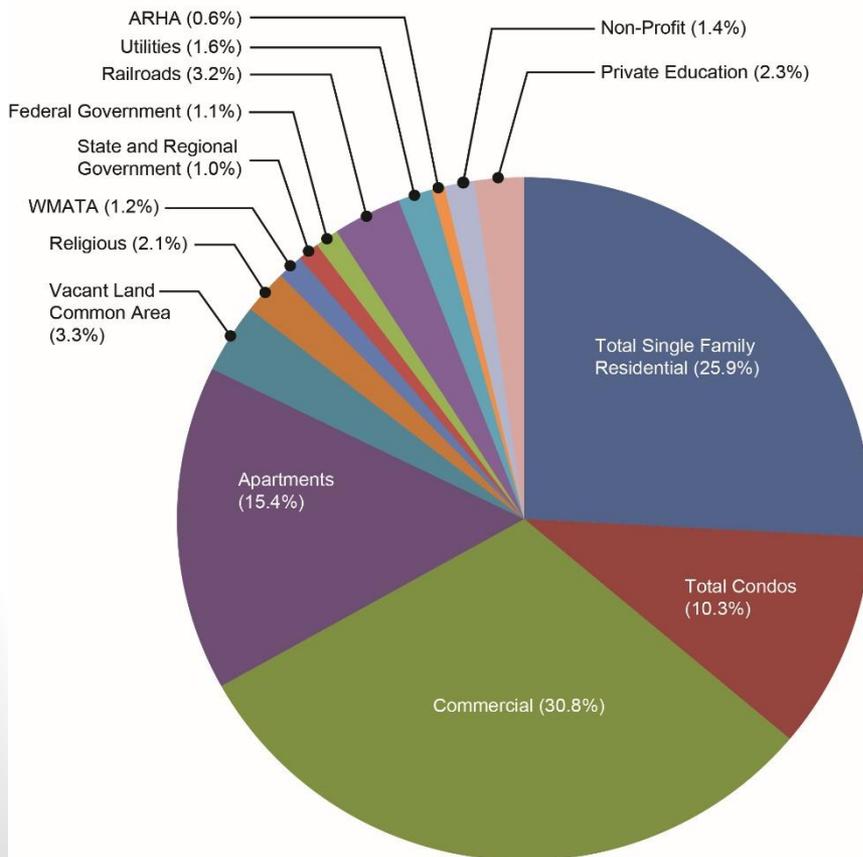
Impervious Area Distribution

Untaxed properties:
 ARHA
 Federal Government
 Non-Profit
 Private Education
 Religious
 State and Regional Government
 WMATA

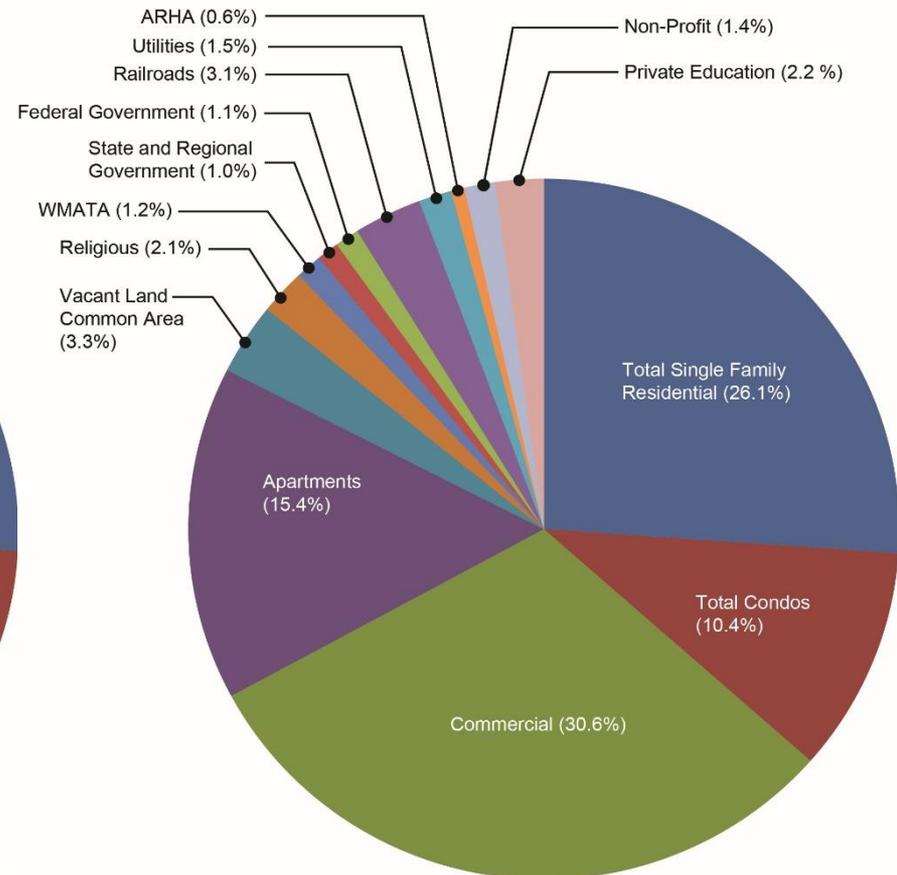


Stormwater Fee and Impervious Area Distribution

Billing Unit Distribution



Impervious Area Distribution

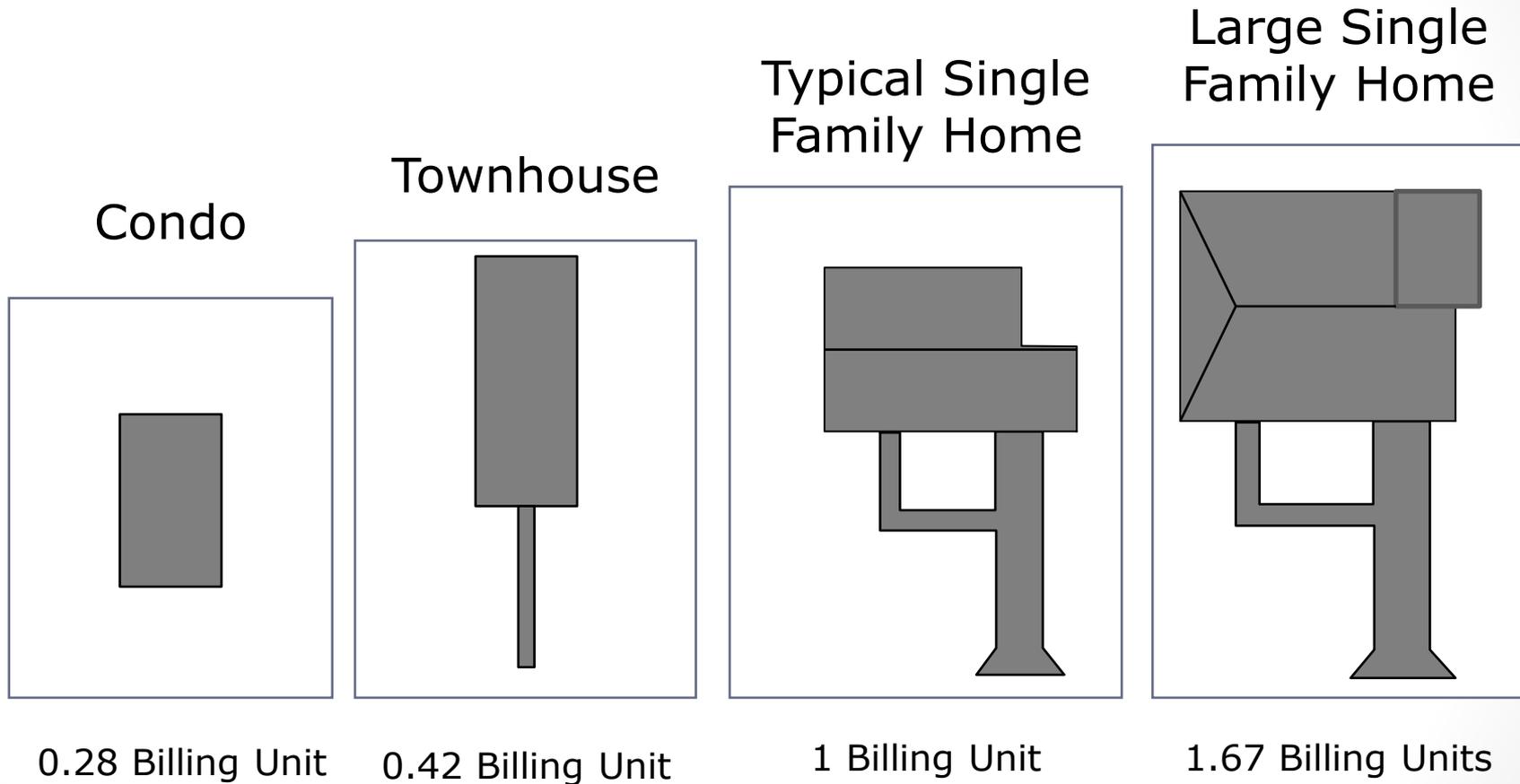


Fee Structure / Billing Units

Goals: Achieve equity, minimize administrative cost, easily understandable

- Single Family Residential (SFR) Tiered
 - Used City GIS data to analyze amount impervious area footprint
 - Fee is based property type
 - Over 43,000 properties
- Variable (Calculated) Non-Residential (NR) / Multifamily
 - About 5,000 properties
 - Impervious area mainly constant

Recommended Fee Structure: Single Family Tiered



- Impervious area footprint, not interior living area
- Proposed 1 Billing Unit = 2,062 s.f. (median typical single family home)



Preliminary Fee Estimates

Tier	Property Type	Billing Unit	Est. Rate Range (yr.)	Est. Rate Range (mo.)
1	Condos	0.28	\$35-\$40	\$3
2	Townhome	0.42	\$50-\$60	\$4-\$5
3	Typical Single Family Home	1	\$120-\$145	\$10-\$12
4	Large Single Family Home	1.67	\$200-\$242	\$18-\$20

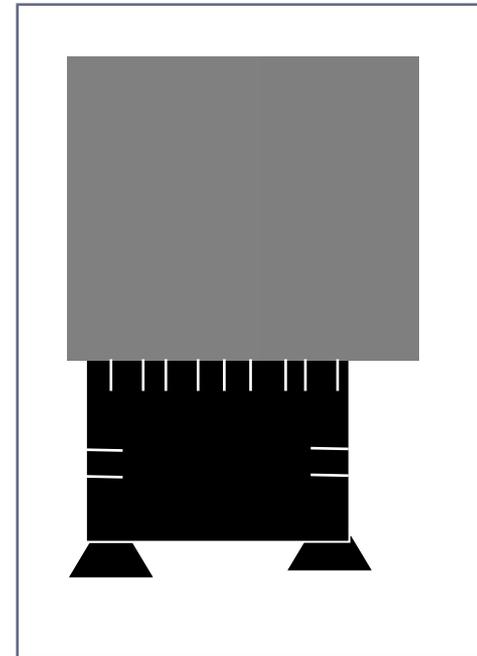
- Based on impervious footprint, not interior square footage
- Preliminary estimate will be further refined

Proposed Non-Residential / Multifamily Calculated Fee

- Based on onsite impervious
- Sample fee calculation

Calculate Variable Fee:

Building and parking lot impervious area	6,168 s.f.
1 Billing Unit	2,062 s.f.
Total Billing Units	$6,168 / 2,062 = 3$
Multiply by rate for 1 billing unit	$3 \times \$120 \text{ to } \145
Total Fee	\$360 to \$435/yr or \$30 to \$36/mo.



Impervious Area
= 6,168 s.f.



Tax Rate Equivalent vs. Proposed SWU Range of Rates

Sample Property Description	Assessed Value (\$millions)	Impervious Areas (ft ²)	Funds to SWM from Real Estate Tax	SWU Fee (at \$120/yr)	SWU Fee (at \$145/yr)
Restaurant	\$2.75	2,184	\$532	\$127	\$154
Apartment Building Complex	\$17.52	106,521	\$3,386	\$6,199	\$7,491
Restaurant with Parking Lot	\$1.25	5,588	\$242	\$325	\$393
Retail Building Complex	\$8.49	38,231	\$1,641	\$2,225	\$2,688
Commercial Building with Parking Lot	\$0.88	12,673	\$169	\$737	\$891
Typical Single Family Home	\$0.75	1,900	\$143	\$120	\$145
Townhome	\$0.50	1,500	\$95	\$50	\$60
Non-Profit Organization	\$1.53	4,079	\$0	\$237	\$287
Church	\$15.87	34,166	\$0	\$1,988	\$2,403
Private School	\$29.74	115,196	\$0	\$6,704	\$8,101



Draft Fee Reduction / Credit Policy

- Provide opportunity for fee reduction
- Credits for practices that reduce stormwater flow and pollutant load
- Perform non-structural practices for stormwater benefit and education
- Implement in two phases
- Draft max credit for NR/Multifamily – 45%
- Draft max credit for SFR – 30%



Phase 1: Non-Residential and Residential Credit Policy

- Required during development review
- Designed and built per standards
- Performing as designed with documentation of proper maintenance by certified professional
- Draft max credit - 35%

Types of Practices	Draft Potential Credit Max.	Draft Duration of Credit
Mandatory Stormwater Quality BMPs	20%	Initial application, annual reapplication
Rate Control / Detention Facilities	15%	Initial application, annual reapplication

Some Types of Mandatory BMPs

- Sand Filters: Dry vault, compound, etc.
- Bioretention Filters
- Proprietary
 - Hydrodynamic
 - Filtering
- Vegetated Green Roof
- Planter Boxes
- Infiltration Trenches
- Filter Strips



Phase 1: Non-Residential and Multifamily Credit Policy

Menu of Non-Structural BMP Options

- Volunteer Activities
- Draft Max Credit - 20%

Type of BMP	Draft Potential Credit Max.
Stream Cleanups	10%
Adopt-a-Stream	10%
Adopt-a-Block	10%
Adopt-a-Storm Drain	10%
Storm Drain Marking	10%

Phase 1: Non-Residential and Multifamily Credit Policy

Menu of Non-Structural BMP Options

- Landscaping and Land Management

Type of BMP	Draft Potential Credit Max.
Native Tree Plantings	10%
Conservation Landscaping and Xeriscaping	10%
Green Space Conservation	10%
Urban Nutrient Management	10%
Vegetated Filter Strip	10%



Phase 2: Single Family Residential Credit Policy

- Level 1 Practices
- Initial application and annual renewal

Type of BMP	Draft Potential Credit Max.
Native Tree Plantings	10%
Conservation Landscaping and Xeriscaping	10%
Green Space Conservation	10%
Rain Barrels	10%
Roof Downspout Disconnection	10%



Phase 2: Single Family Residential Credit Policy

- Level 2 Practices
- Initial application and annual renewal

Type of BMP	Draft Potential Credit Max.
Rain Gardens	20%
Pervious Driveway	20%
Pervious Sidewalk	20%
Cisterns	20%
Grass Channel / Swale	20%
Infiltration Practices	20%
Green Roofs	20%

Examples of Residential BMPs



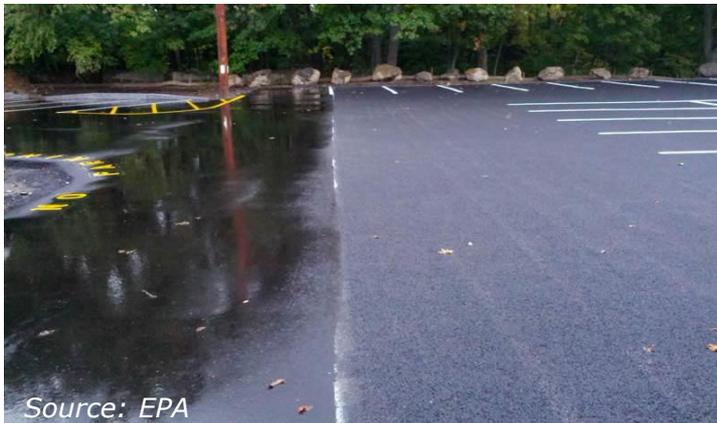
Rain barrel



Rain garden



Vegetated green roof, City Hall



Permeable Pavement

Source: EPA



Phase 2: Non-Residential and Multifamily Credit Policy

- 'Public-Private Partnership – P3'
- 2016 changes to enabling legislation
 - Grant easement for installation of voluntary, structural BMPs per design standards
 - Target properties with large impervious footprint
 - Economies of scale provides cost benefit

Billing Method

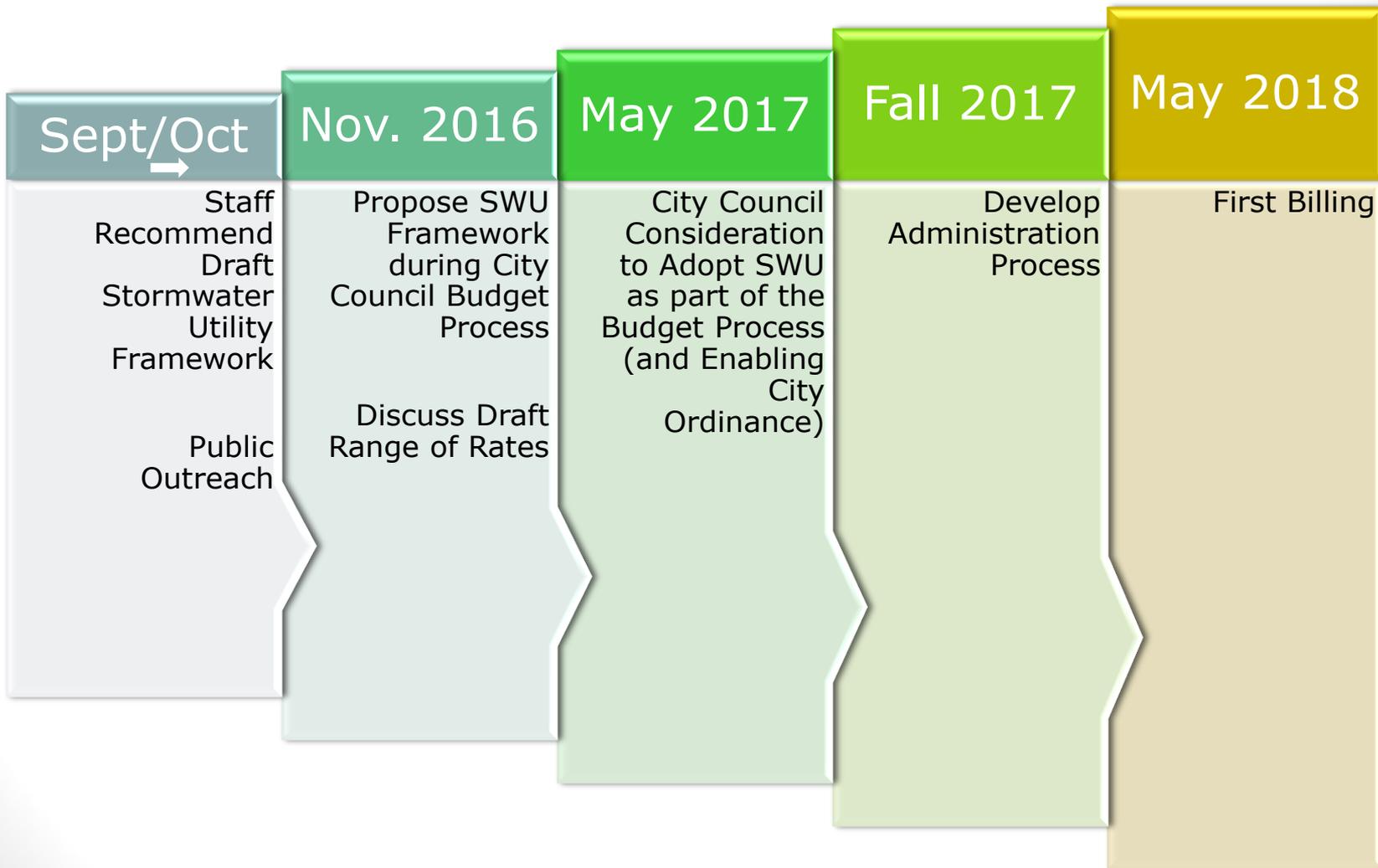
- Goals: Ease of implementation, minimize delinquency, keep administrative cost low, and fewer data needs
- Options Considered:
 - Virginia American Water
 - Alex Renew
 - Stand-alone
- Recommendation: Incorporate into the Real Estate Bill

Public Outreach Framework

Council recommended Framework

- New dedicated webpages
- FAQs
- Social media
- Collaborate with Environmental Policy Commission (EPC)
- Targeted groups
 - Residents
 - Chamber of Commerce
 - Federation of Civic Associations, and individual
 - Non-profits and Religious
 - Large property owners
 - Large parcel owners

Next Steps





Questions

Jesse E. Maines, Division Chief
T&ES, Stormwater Management

Main: 703-746-4014

Direct: 703-746-4643

Dedicated email:

Stormwater@alexandriava.gov

More information:

www.alexandriava.gov/Stormwater