



# Proposed Stormwater Management Fee: Recommended Framework

January 12, 2017

ECO-CITY  ALEXANDRIA

## 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
  - Reduce pressure on the General Fund
- Not a question of if we're funding the mandates, but what is the best way to fund the mandates



[ 2 ]

# What is Stormwater Runoff?


Eco-CITY ALEXANDRIA
Only Rain Down the Storm Drain!



Runoff from hard surfaces like roofs, lawns, and streets picks up pollutants like:
 


- Pet waste
- Litter
- Fertilizer
- Motor oil
- Chemicals

Polluted stormwater runoff from roofs, lawns, and streets carries the Potomac River and eventually the Chesapeake Bay.

[ 3 ]

# Chesapeake Bay TMDL

- 2010: Chesapeake Bay Total Maximum Daily Load (TMDL)
  - Set nutrient and sediment 'pollution budget' or 'clean up mandates'
- 2013: Chesapeake Bay TMDL clean up mandates enforced in MS4 permit



[ 4 ]

## Driver: Chesapeake Bay TMDL Cleanup Mandates



- 'Pollution budget' for nutrients & sediment
- Require costly stormwater infrastructure to retrofit nearly ¼ of the City

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

[ 5 ]

## Stormwater Infrastructure Projects



Lake Cook Retrofit



Ben Brenman Pond Retrofit



[ 6 ]

## Stormwater Infrastructure Projects



*Wet Pond, Parc Meridian*



*Green Roof, Duncan Library*



*Bioswale, Glebe Road*





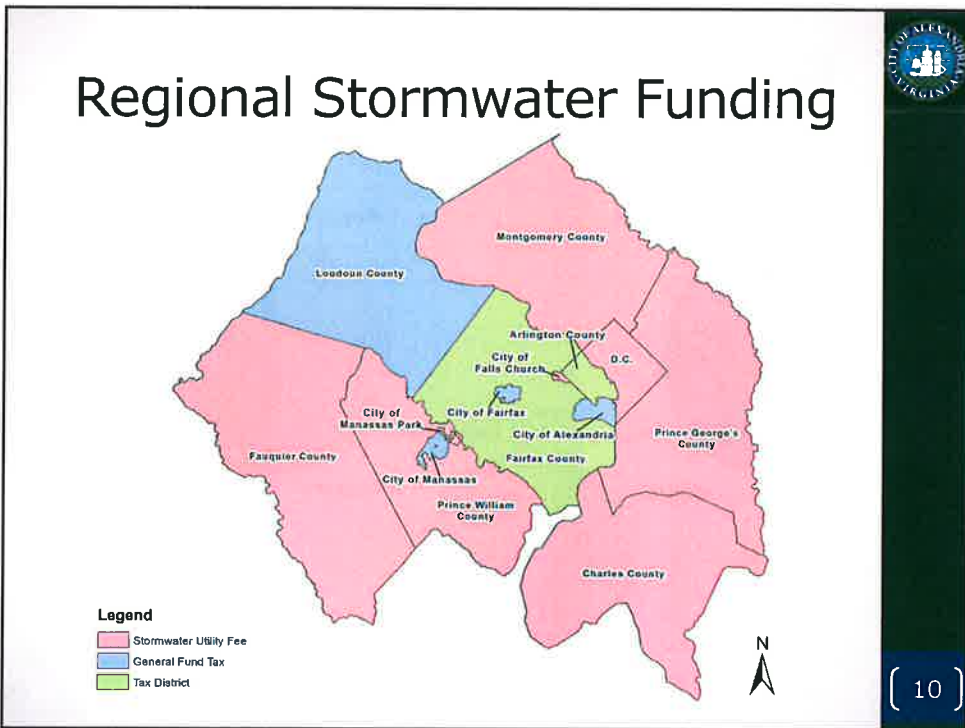
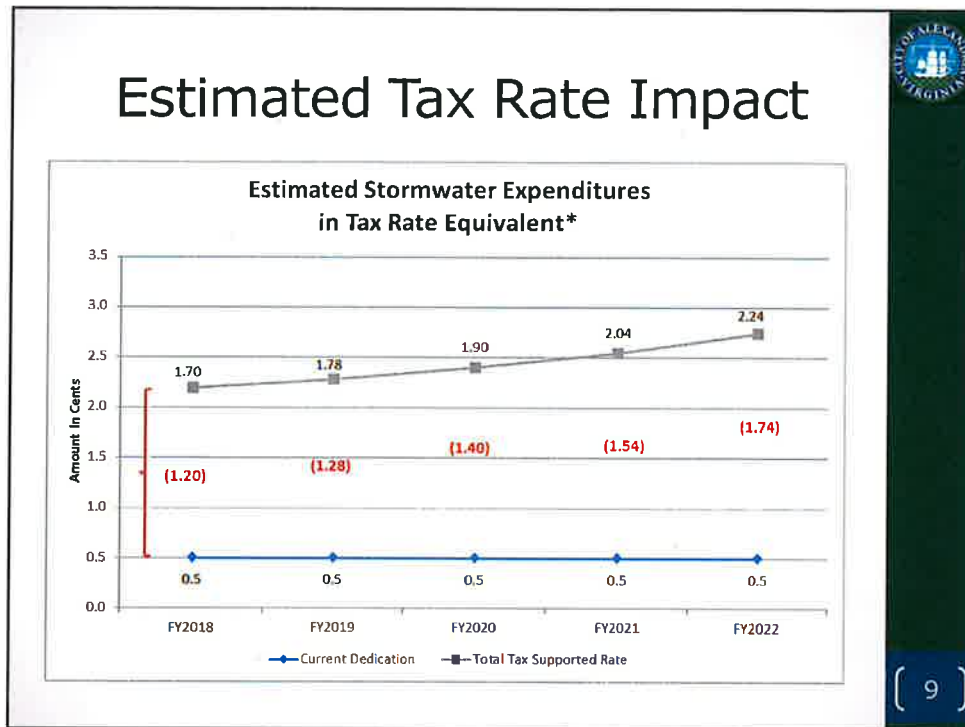
*Permeable Pavers and Bioretention Cell, 4MR Park*



## 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





## Focus of Staff Recommendations

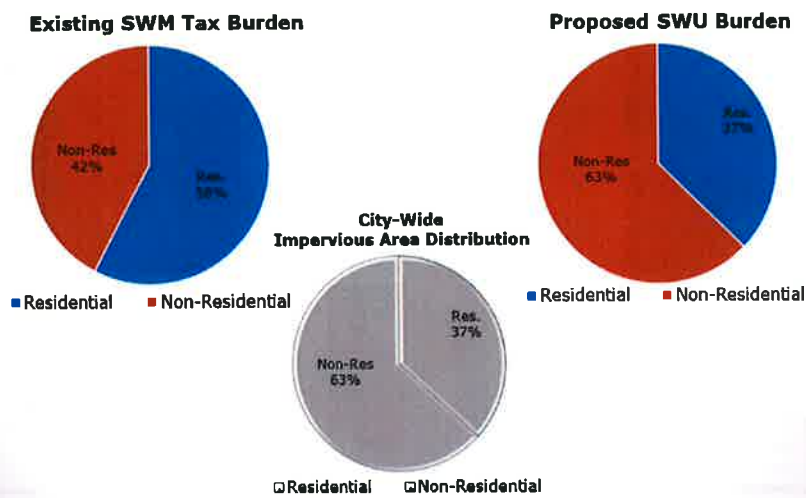
- Council direction to create draft framework
- Create dedicated funding source
  - Revenue can only be used for stormwater
- Fee for service, not a tax
  - Untaxed properties will have to pay the fee
- Based on property's impervious area

### Criteria Considered

- Maximize equity
- Minimize administrative cost
- Maximize understandability



## Tax Rate vs. Fee Funding: Creating Equity



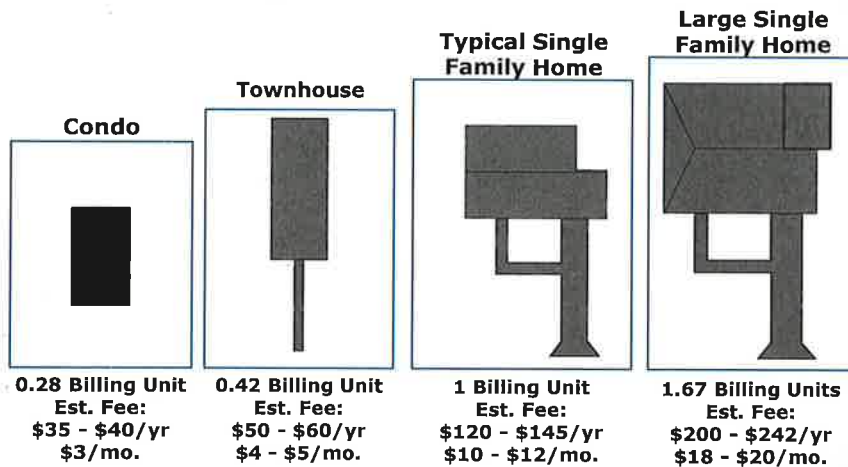


## Proposed SWU Draft Framework



- Fee Structure
  - Single Family Residential (SFR) Tiered & Variable Non-Residential (NR) / Multifamily
  
- Billing Method
  - Incorporate into Real Estate bill
  
- Fee Reduction / Credit Policy
  - Ways to reduce the fee

## Proposed Fee Structure: Single Family Tiered

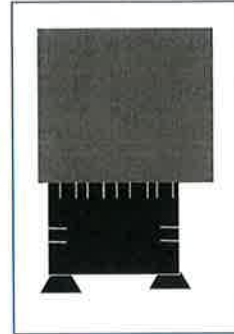


- Exterior impervious area footprint, not interior living area
- Proposed 1 Billing Unit = 2,062 s.f. (median GIS value)

## 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	$\$360 \text{ to } \$435/\text{yr}$ or $\$30 \text{ to } \$36/\text{mo.}$



Impervious Area = 6,168 s.f.



## Proposed Fee Reduction / Credit Policy

- Provide opportunity for fee reduction
  - Credits for practices that reduce stormwater flow and pollutant load

Staff recommends two phases

- Phase 1
  - Stormwater quality facility best management practices (BMPs) for (Res/NR)
  - Stormwater quantity controls (Res/NR)
  - Non-structural BMPs (NR)
- Phase 2
  - Menu of Single-Family (Residential) BMPs
  - Voluntary BMPs / P3 Approach (NR)





## Examples of BMPs



Cistern, Fire Station 206



Rain barrel



Vegetated green roof, City Hall



Permeable Pavement



Rain garden



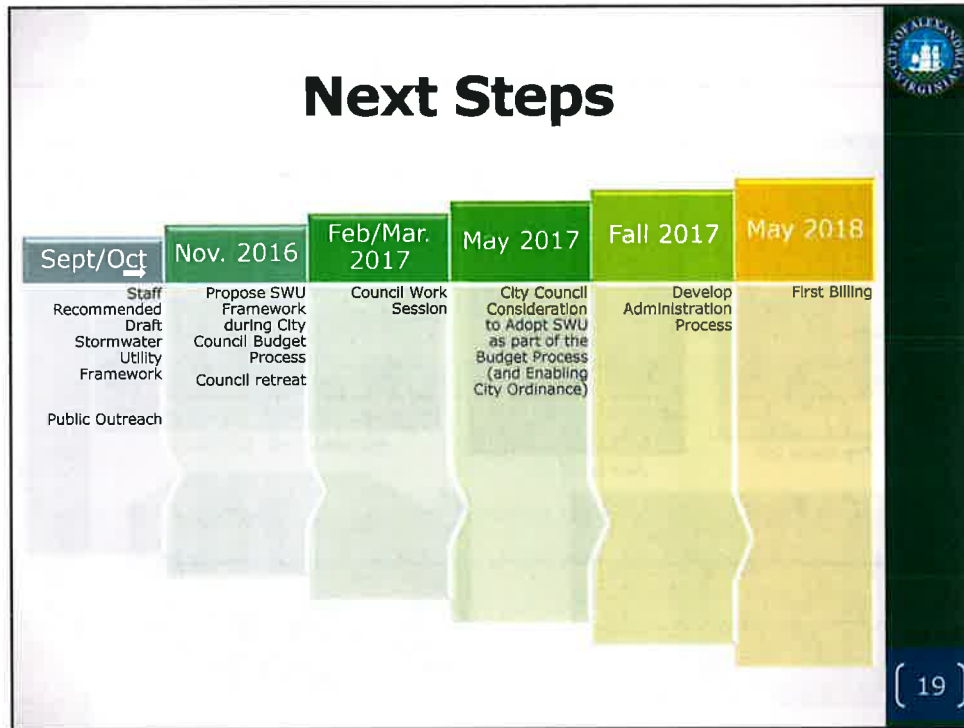
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## Tax Rate Equivalent vs. Proposed Fee Rate Range

Sample Property Description	Assessed Value (\$millions)	Impervious Areas (ft <sup>2</sup> )	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



( 18 )



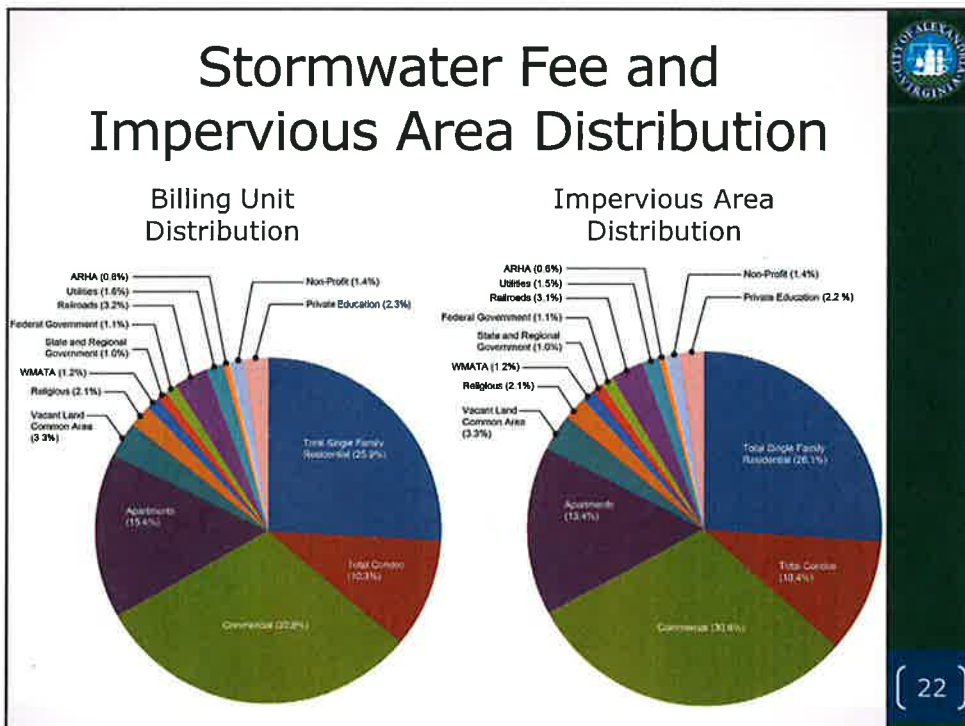
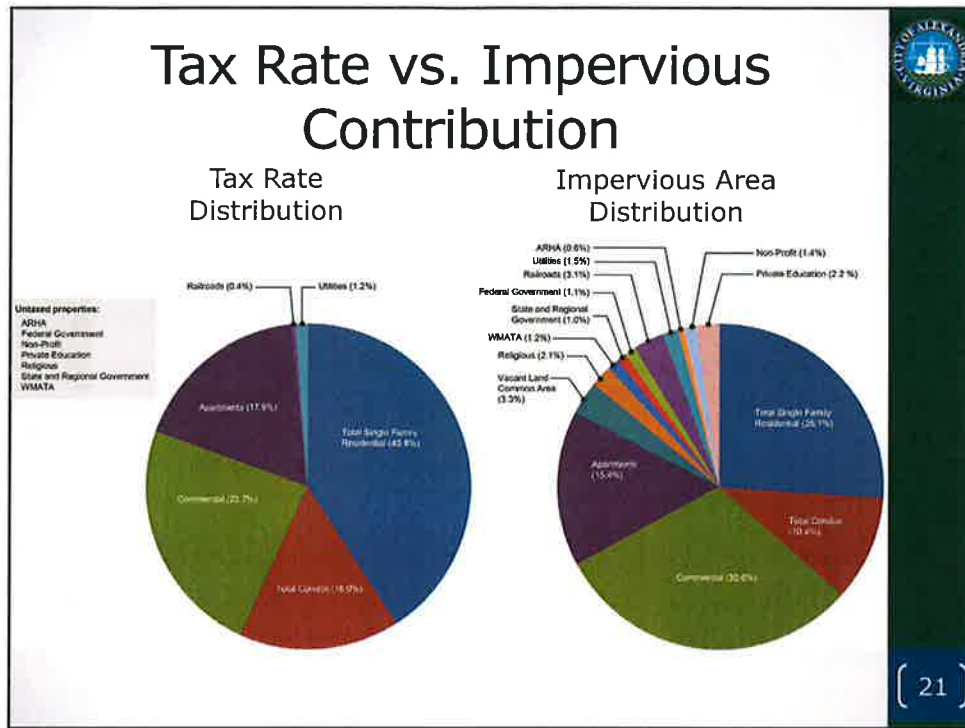
## Questions?

Jesse Maines, Division Chief  
T&ES, Stormwater Management  
703.746.4643

Dedicated email:  
[Stormwater@alexandriava.gov](mailto:Stormwater@alexandriava.gov)

More information:  
[www.alexandriava.gov/Stormwater](http://www.alexandriava.gov/Stormwater)

[ 20 ]



## Single Family Residential: Fee Estimate Range



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 exterior impervious footprint and not living area
- Used City's GIS data

[ 23 ]



## City of Alexandria

# Stormwater Management Program *By the Numbers*

### What is Stormwater?

Stormwater runoff occurs when rain or snowmelt flows over hard surfaces, also called impervious, like roofs, driveways, parking lots, and streets and doesn't soak into the ground. If not managed properly, stormwater runoff can create stormwater pollution and/or flooding issues.

### What We Do

- ⇒ Operate and maintain storm drain infrastructure and water quality requirements
- ⇒ Maintain and enhance streams, channels, and community flood management program
- ⇒ Comply with costly unfunded state and federal Bay cleanup mandates

### Stormwater Infrastructure Operations and Maintenance

- 13,520 Stormwater structures (catch basins and inlets) ⇒ Inspect, maintain, clean and repair
- 425 Outfalls ⇒ Inspect, maintain, clean and repair
- 535 Stormwater Best Management Practices (BMPs)
  - 454 Private stormwater BMPs ⇒ Inspection and enforce proper functioning
  - 81 Public Stormwater BMPs ⇒ Inspection and maintenance
- 42% of the City is impervious ⇒ Manage increased runoff
- 25 miles of streams, Potomac River and Chesapeake Bay ⇒ Protect, enhance and restore
- 210 Miles of streets ⇒ Sweep , inspect and maintain
- 185 Miles of storm pipes ⇒ Inspect, maintain, clean and repair

### Floodplain Management Program

Community Rating System (CRS) Class 6, one of best in Virginia. Residents can receive up to a 20% discount on FEMA flood insurance premiums.

### Chesapeake Bay Cleanup Mandates

Provide stormwater treatment through redevelop, stream restoration, integrated planning and stormwater retrofits to meet City's targets to reduce nitrogen, phosphorus and sediment for the Chesapeake Bay Total Maximum Daily Load (TMDL) 'pollution budget'.

Approximate Acres to be Treated	MS4 Permit Cycle	Portion of Total Reductions
120-130	Phase I (2013-2018)	5%
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1,450	Phase III (2023-2028)	60%
<b>2,140</b>	<b>Total All Phases</b>	<b>100%</b>

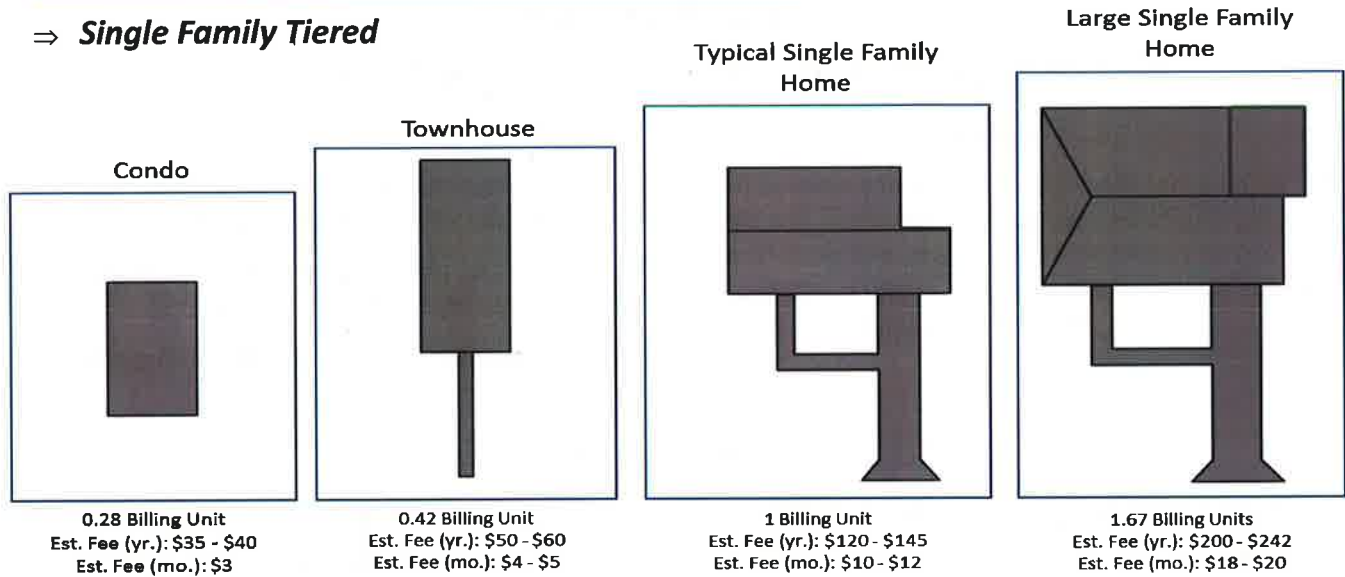
*This is approximately ¼ of the entire City that will need to be treated to meet the Bay Cleanup Mandates.*



# City of Alexandria Stormwater Management Program: *By the Numbers (cont.)*

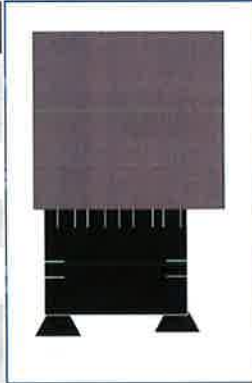
## Proposed Stormwater Management Fee Framework

### ⇒ *Single Family Tiered*



### ⇒ *Non-Residential*

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<b>Total Fee</b>	<b>\$360 to \$435/yr or \$30 to \$36/mo.</b>



### ◆ *Fee Reduction Strategies*

#### *Phase 1*

- ◆ Mandatory Stormwater Facilities-Best Management Practices (BMPs)
- ◆ Menu of Non-Structural BMPs

#### *Phase 2*

- ◆ Menu of Single Family Residential BMPs
- ◆ Voluntary BMPs per design

## *Tax Rate vs. Fee Funding: Creating Equity*

