



City of Lynchburg

Stormwater Management

Stormwater Advisory Committee

*Presentation to City
Council*

January 25, 2011



CDM

Guiding Principles



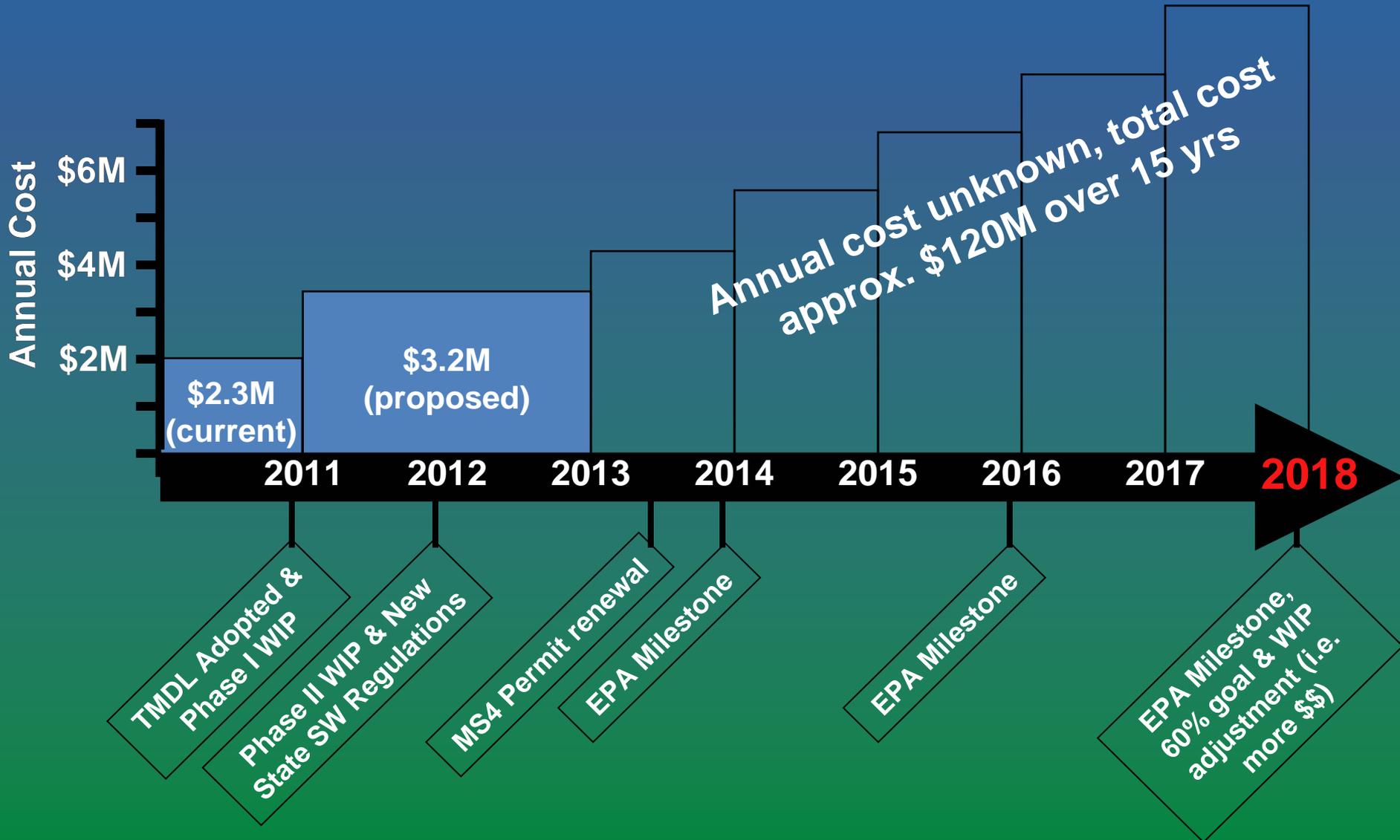
- Provide services that promote the health, safety and prosperity of the city.
- Manage the city's stormwater needs and infrastructure effectively and efficiently.
- Comply with environmental regulations.
- Engage State and Federal regulators to keep the city well-positioned on future issues.
- Fairly and equitably charge for services provided.
- Educate and engage the public.

Stormwater- Why Here, Why Now?



- Current organization is decentralized, funding is non-dedicated, services provided are minimum required, no dedicated staff.
- Existing stormwater infrastructure needs have been essentially ignored.
- New regulations will require significant investment on stormwater and come with increased oversight and accountability.
- Being proactive will allow the city to qualify for future funding.

TMDL Timeline



Compliance Language in City's NPDES Permit



4VAC50-60-1220. of NPDES General Permit

“The failure to provide adequate program funding, staffing or equipment maintenance shall not be an acceptable explanation for failure to meet permit conditions.”

Virginia Dedicated Stormwater Funding Programs



- 16 programs have dedicated funding
 - 13 are fee-based
 - 3 are tax-based ★
- Two communities have pending fee programs and two are evaluating options

City/County	Population	Funding Method	Status
Fairfax County ★	1,015,302	Dedicated Tax	Implemented
Virginia Beach	435,619	User Fee (ERU)	Implemented
Prince William County	379,166	User Fee (ERU)	Implemented
Loudoun County	301,171	User Fee (ERU)	Implemented
Henrico County	296,415	n/a	Feasibility
Norfolk ★	229,112	User Fee (ERU)	Implemented
Chesapeake	220,560	User Fee (ERU)	Implemented
Arlington County ★	217,483	Dedicated Tax	Implemented
Richmond ★	192,913	User Fee (SFU)	Implemented
Newport News ★	178,281	User Fee (ERU)	Implemented
Hampton ★	145,017	User Fee (ERU)	Implemented
Alexandria ★	143,885	Dedicated Tax	Implemented
Portsmouth ★	101,377	User Fee (ERU)	Implemented
Roanoke ★	91,552	n/a	Pending
Suffolk	81,071	User Fee (ERU)	Implemented
Lynchburg ★	72,000	n/a	Feasibility
James City County	63,735	User Fee (ERU)	Implemented
Charlottesville ★	41,487	n/a	Pending
Staunton ★	23,853	User Fee (SFU)	Implemented
Colonial Heights	17,768	User Fee (ERU)	Implemented

★ - Virginia First City

Purpose of the Stormwater Advisory Committee (SWAC)



- **To represent a wide cross-section of interest groups.**
- **To engage public participation.**
- **To make recommendations on the following:**
 - Stormwater management priorities;
 - Appropriate and affordable level of service;
 - Level of interest in public participation in stormwater management program activities;
 - Recommendations of various stormwater management needs assessments, regulations and policies, financial requirements, and funding mechanisms.

Key Project Findings



1. The current program provides the minimum for existing regulatory and permit compliance.
2. The majority of the SWAC recognized the need for a higher level of service.
3. Current resources are not sufficient to meet pending regulatory requirements.
4. A user fee is more equitable than a tax to fund stormwater management.

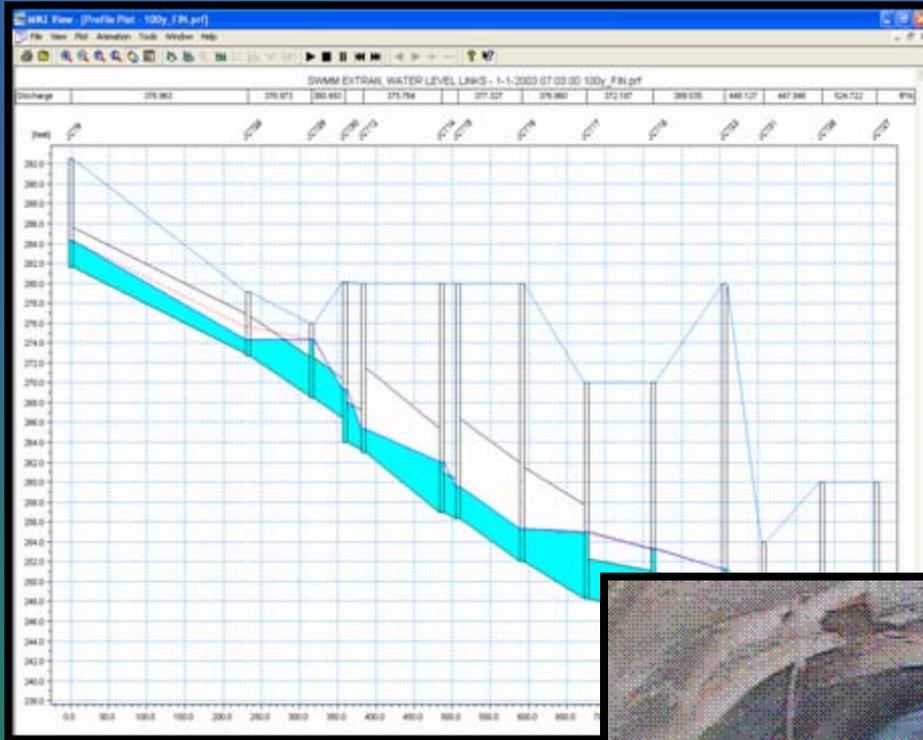
The City's Stormwater Level of Service Should Be Increased to a LOS 3.5



Level of Service	Program Management	Regulatory Compliance	Operation and Maintenance	Capital Improvement Projects	Total Program Cost
5	\$1,137,000	\$828,000	\$1,712,000	\$854,000	\$4,531,000
	Comprehensive Planning & Full Implementation Capabilities	Exemplary Permit Compliance	Fully Preventative/ 100% Routine	Prioritized / Fully-Funded	
4	\$790,000	\$530,000	\$1,487,000	\$754,000	\$3,561,000
	Pro-Active Planning & Systematic CIP Implementation Capabilities	Pro-Active Permit Compliance	Mixture of Routine and Inspection Based	Phased Implementation / Allocated Budgets	
3.5	Preferred LOS per SWAC Recommendation *				\$3,206,000
3	\$551,000	\$384,000	\$1,262,000	\$654,000	\$2,851,000
	Priority Planning & Partial CIP Implementation Capabilities	Full Permit Compliance	Mixture of Inspection and Responsive Based	Complaint, Inspection-Based / Moderate Budget	
Existing LOS (2.5)	\$342,000	\$290,000	\$1,146,000	\$554,000	\$2,332,000
	Well-Trained, In-House Staff Minimal Long Range Planning	Minimum Permit Compliance Resources At Capacity	Limited Routine Activities Lack of Dedicated Resources	Critical Needs Only / Minimum Budget	

Note*: The SWAC ranked Program Management and O&M as the highest priority program elements for the early phases of the improved stormwater program.

Master Planning and Condition Assessment Should Be Prioritized Early in the Program



A Stormwater User Fee is Recommended to Fund a Portion of the Stormwater Program**



Tax Based Systems

- **Advantages**
 - Billing System Already In Place
 - Easier to Collect and Administer
 - Can Be Sufficient for All Services
- **Disadvantages**
 - Not Equitable
 - Typically Not Dedicated*
 - Requires Increase in Real Property Tax

User Fee Based Systems

- **Advantages**
 - **Equitable (i.e., Fee Related to Service Provided)**
 - Stable & Dedicated Funding for All Program Services
 - Incentivizes Good Practices On-Site
- **Disadvantages**
 - Potential Startup Costs
 - New Funding Mechanism and Associated Fee

*It is not typical for taxes to be dedicated for stormwater only, although there are three examples in Virginia where this is the case.

**Three SWAC members did not support a user fee system, seven SWAC members did not indicate a preference.

A Funding Program that Leverages Multiple Sources is Preferred*



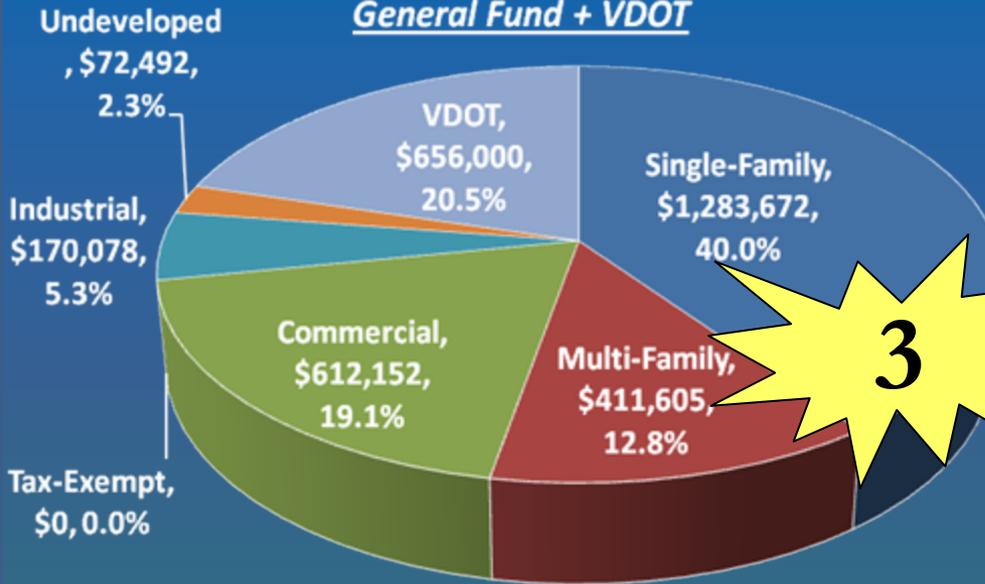
	<u>LOS 3.5*</u> <u>Keep GF & VDOT</u>	<u>LOS 3.5</u> <u>Fee & VDOT</u>	<u>LOS 3.5</u> <u>Fee Only</u>
Stormwater User Fees	\$ 1,750,000	\$ 2,550,000	\$ 3,206,000
General Fund (property taxes)	\$ 800,000	\$ 0	\$ 0
VDOT & Misc.	\$ 656,000**	\$ 656,000*	\$ 0
Total	\$ 3,206,000	\$ 3,206,000	\$ 3,206,000
Approximate Monthly User Fee:	\$3.00 per SFU	\$4.00 per SFU	\$5.00 per SFU

Notes:

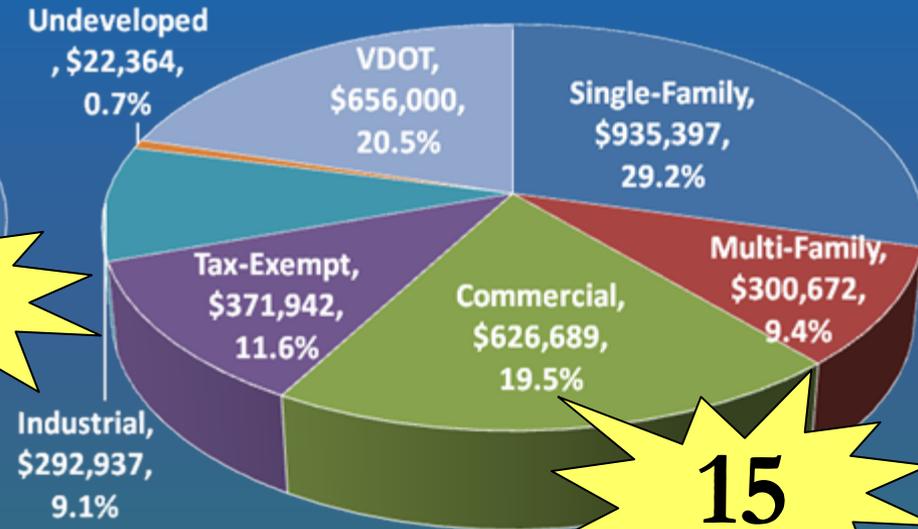
* Four SWAC members did not support the 3.5 LOS- one preferred a 4.0 LOS, two preferred a 3.0 LOS, and one preferred the existing 2.5 LOS. Seven SWAC members did not indicate a preference.

** VDOT reimbursement amount may vary annually based on available funding

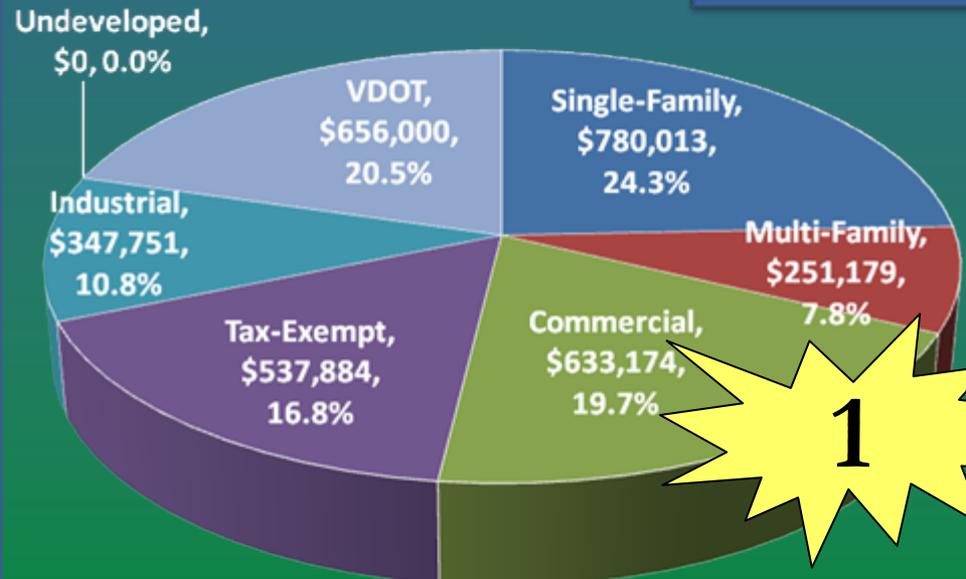
Scenario 1
General Fund + VDOT



Scenario 2
General Fund + VDOT + User Fees

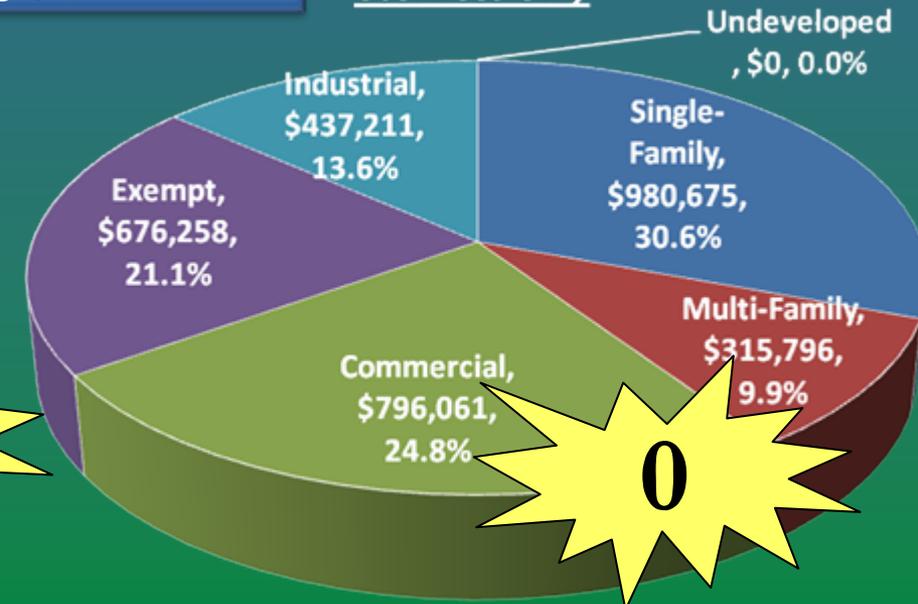


Scenario 3
User Fees + VDOT



Fund Contribution by Property Class
Total Funding: \$3,206,000

Scenario 4
User Fees Only

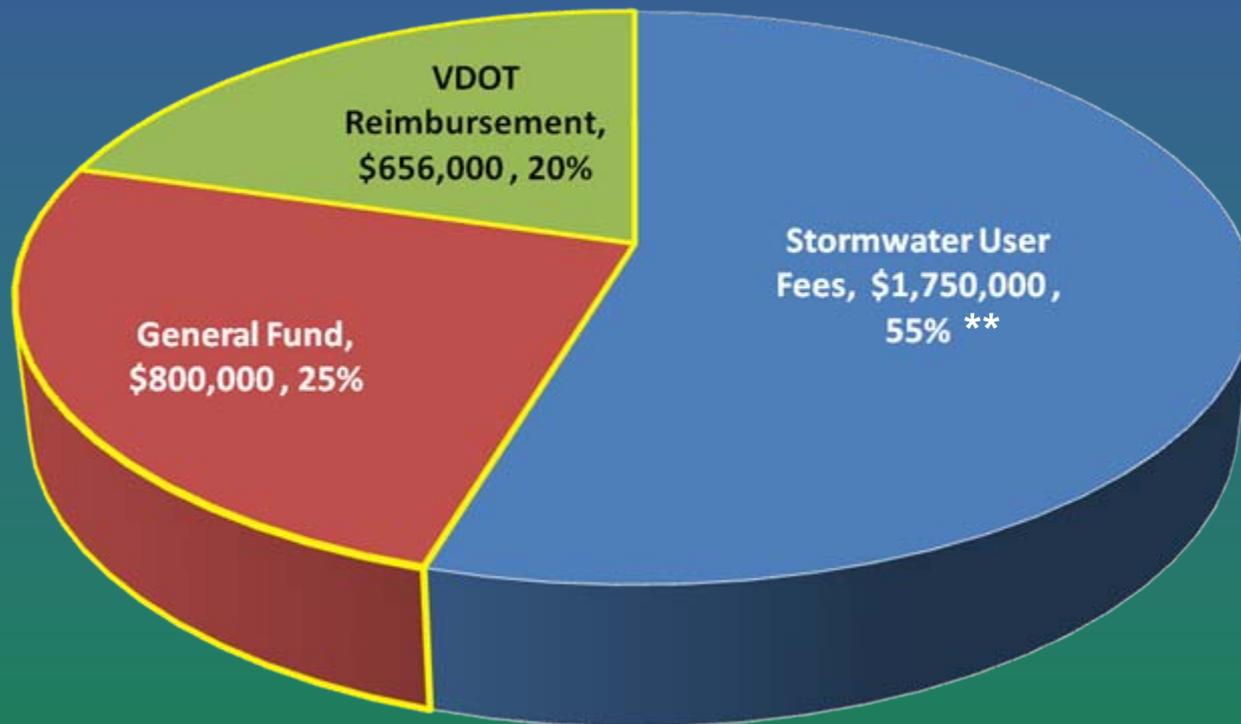


Note: Seven SWAC members did not indicate a preference for a funding scenario.

Proposed Funding Scenario Supported by Majority* of SWAC Members



Contribution of Total Revenue
Annual Funding = \$3,206,000



Note: *Four SWAC members did not support this funding scenario and seven SWAC members did not indicate a preference for a funding scenario.

**The SWAC proposed that the User Fee be capped at 55% of the total annual program cost.

Fee Credits Shall Be Offered for On-Site Reductions in Runoff and Pollution



- **Structural Stormwater Controls for Quantity and/or Quality**
 - Stormwater ponds, wetlands, low impact development (LID) practices
- **Non-Structural Stormwater Controls**
 - Permit holders, education, lawn care management, and maintenance programs

Note: Fee Credits are required by Virginia State Law (§ 15.2-2114) for Stormwater Utility Programs



A Tiered Rate Structure is Recommended for Single-Family Residential Customers

Tier 1



< 1,293 Sq. Ft. = 0.5 SFU

Tier 2



1,294 to 4,256 Sq. Ft. = 1.0 SFU

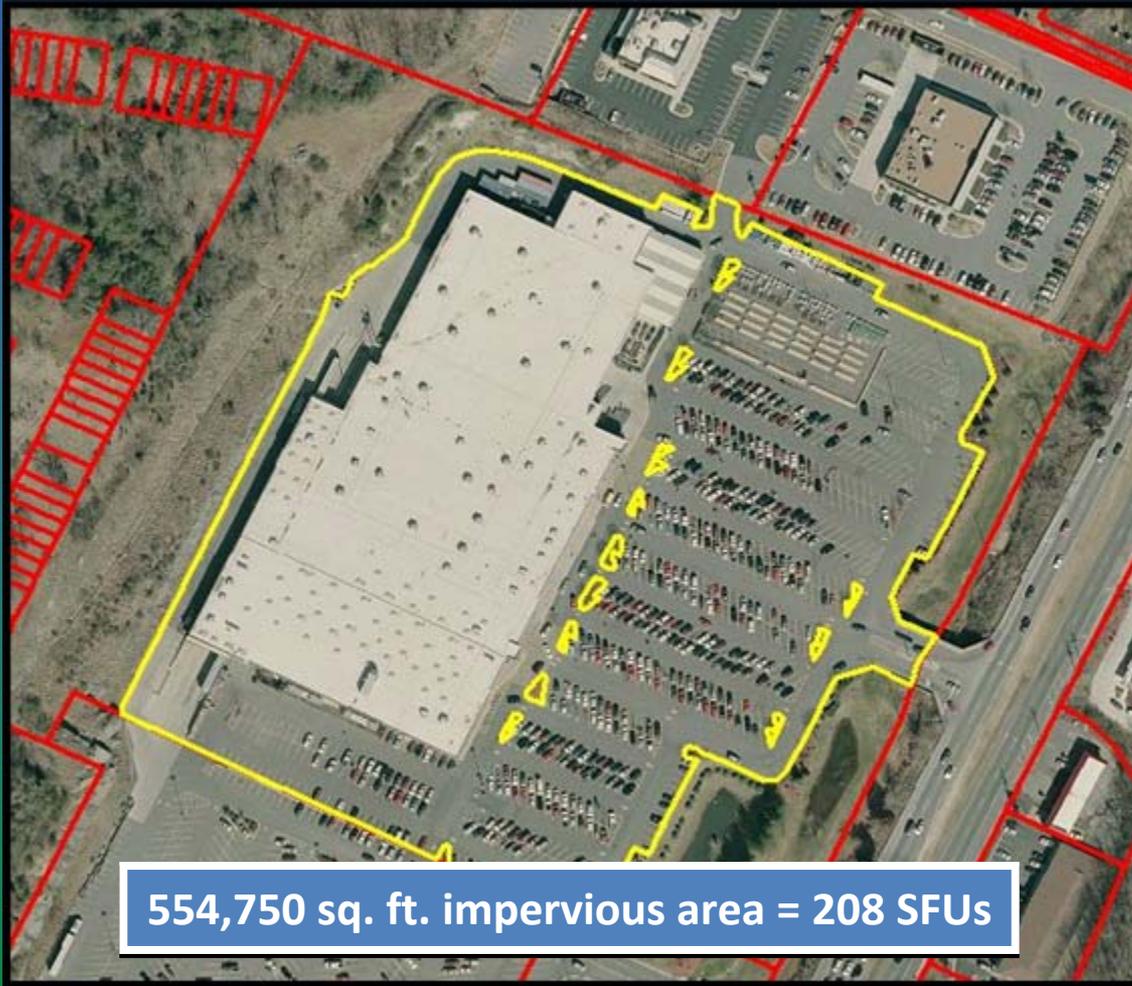
Tier 3



> 4,257 Sq. Ft. = 1.6 SFU

The Average Single-Family Residential Unit (SFU) in Lynchburg is 2,672 sq. ft.

Non-Residential Customers Should Pay a Fee in Proportion to Absolute Impervious Area



*Non-Residential
Impervious Area*

$$SFU = \frac{\text{Non-Residential Impervious Area}}{SFU (2,672 \text{ sq. ft.})}$$

The City Should Implement Unique Rates for Multifamily Property Classes



- Non Single-Family Properties Were Sampled Separately
- Average Impervious Area Per Dwelling Unit Was Determined

Type	SFU Assignment
Apartments	0.3
Town Homes	0.4
Condominiums	0.4
Duplex	0.5
Mobile Homes	0.7

Based on Lynchburg Sample Measurements

Summary of SWAC Recommendations



- **Provide a higher level of stormwater service (\$3.2M)**
 - VDOT (approximately \$656,000 annually)
 - General Fund
 - Fee (capped at 55% of total annual program cost)
- **Provide an equitable rate structure:**
 - 3 rate tiers for single-family residents
 - Unique rates for multi-family property classes
 - Rates for non-residential customers based on actual, measured impervious area
- **Develop a fee credit program**
- **Charge the property owner, not the tenant**

Current, Proposed and Future Program



	Program Management	Regulatory Compliance	Operation and Maintenance	Capital Improvements
Current Program	\$342,000	\$290,000	\$1,146,000	\$554,000
	\$2,300,000 annually			
	Planning and management of existing personnel and program, GIS and regulatory development	Minimum MS4 permit compliance	Inlet cleaning, ditch maintenance, street sweeping	Culvert and pipe repair
Proposed Program	\$3,200,000 with emphasis on PM, O&M and Master Planning			
	Current Program + Master Plan development and strategic planning	Current Program + fund additional staff to administer/enforce permit, develop local programs required by MS4 and new state stormwater regs.	Current Program + restore 3rd street sweeper and provide higher level of inspection and inventory	Current Program + begin building reserve
Future Program	Annual cost will depend on availability of state/federal funding and progress of TMDL			
	Dictated by regulatory mandates, Capital and O&M requirements	Increased monitoring and reporting likely	Proportional to Capital Improvements	\$120M+ between 2011 and 2025

Summary of Estimated Annual Program Cost for Stormwater Management (based on FY11)



Primary Stormwater Program Costs	Program Management	Regulatory Services	Operation & Maintenance	Capital Improvements	Totals
Utilities					
<i>Non-Departmental</i>	\$19,000				\$19,000
<i>Stormwater System Maintenance</i>	\$162,000		\$234,000		\$396,000
Public Works					
<i>Streets</i>		\$30,000	\$642,000		\$672,000
<i>Engineering</i>	\$139,000	\$4,000			\$143,000
<i>Parks / Grounds</i>		\$4,000	\$96,000		\$100,000
<i>Refuse</i>		\$5,000	\$174,000		\$179,000
Community Development					
<i>Zoning and Natural Resources</i>		\$166,000			\$166,000
<i>Inspections/Code Enforcement</i>		\$26,000			\$26,000
<i>GIS</i>	\$22,000				\$22,000
Parks & Recreation		\$45,000			\$45,000
Soil and Water Conservation District		\$10,000			\$10,000
Capital Improvements				\$554,000	\$554,000
SUBTOTALS	\$342,000	\$290,000	\$1,146,000	\$554,000	\$2,332,000
Other Storm-Related Program Costs	Program Management	Regulatory Services	Operation & Maintenance	Capital Improvements	Totals
<i>Loose Leaf Collection</i>			\$319,000		\$319,000
<i>Transportation Capital Projects</i>				\$1,340,000	\$1,340,000
SUBTOTALS	\$0	\$0	\$319,000	\$1,340,000	\$1,659,000

Proposed Schedule based on SWAC recommendations



- February 8 Work Session
- February 22 Work Session (optional)/Public Hearing
- March 8 Work Session (optional)/Public Hearing (alternate)
- March 22 Work Session and Council Meeting for adoption
- Stormwater Utility (enterprise fund) effective July 1, 2011
- Develop credit policy by January 1, 2012
- First bill January 1, 2012

Decision Points For Council



Level of Service	2.5	3	<u>3.5</u>	4	5
	<u>Option A</u>			Option B	
Funding Mechanism	Fee or any combination of <u>Fee/VDOT/General Fund</u>			General Fund-Increase Real Estate Tax or keep equal to current rate	
Basis of Charge	<u>Impervious Area</u>			Property Value	
Tax Exempt Properties Included?	<u>Yes</u>			No	
Enterprise Fund Required?	<u>Yes</u>			No	
Who To Bill?	<u>Property Owner</u> or Tenant			Property Owner	
How To Bill?	Water/Sewer Bill Real Estate Bill Separate Bill			Real Estate Bill	
Financial Policy Required?	<u>Yes</u>			No	
Ordinance Required?	<u>Yes</u>			No	
Credits Allowed?	<u>Yes</u>			No	