

**Proposed Stormwater Utility
Stormwater Fees and Credits
2/10/14**

A. Stormwater Utility – General Principle

Over the past few months, staff has presented many details about increasingly more stringent regulations related to stormwater, the requirements for maintaining the City's stormwater system, and infrastructure projects that are needed to remedy stormwater issues. All of these will require significant expenditures in the future.

A stormwater utility is a mechanism that can be used to generate revenue to pay for these stormwater related expenditures. A stormwater utility would function in a manner similar to the City's water and sewer utility. The general principal is that all developed properties within the City would be assessed a stormwater fee based upon the size and impact the property has on stormwater related issues.

Section 15.2-2114 of the Code of Virginia provides the authority for localities in Virginia to establish a stormwater utility.

B. Stormwater Fee Methodology

There are over 1,400 existing stormwater utilities in the United States. A recent study completed by Western Kentucky University found that these stormwater utilities basically utilize one of 14 different methods to calculate and determine the actual stormwater fees paid to the utility. The most common method used to calculate the rates is called the "Equivalent Residential Unit" (ERU) method. Over 45% of the stormwater utilities in the U.S. use the ERU method when calculating rates. All of the sixteen (16) existing stormwater utilities in Virginia use some variation of the ERU method. The City's consultant, GKY & Associates (GKY) is recommending that if the City of Winchester establishes a stormwater utility, the ERU method should be used in establishing the rate structure.

Usually, the ERU is defined as the average amount of impervious area on a single family residential parcel. In most cases under this method, all single family residential properties are assessed a flat-rate stormwater fee per month. The monthly stormwater fee for all other properties is proportional to the ratio of the amount of impervious surface area on their property to the ERU area.

GKY has completed an analysis of properties within the City using aerial photography and is recommending that the ERU size for Winchester be established at 2,495 square feet. Based on that size, there are approximately 20,300 ERU's currently within the City.

C. Stormwater Fee Calculation

The actual stormwater fee under the ERU method is calculated by dividing the total amount of revenue that needs to be generated to pay for stormwater-related expenditures by the total number of ERU's. For example, assume that \$50,000 of revenue needs to be generated per month and there are 5,000 total ERU's and the size of an ERU is 2,500 square feet. The stormwater fee per ERU would be $(\$50,000/5,000) = \$10/\text{month}$. Specific examples of the monthly fee for various properties under this scenario include:

- All Single Family Residential Properties: \$10/month
- Commercial Property with 25,000 square feet of impervious area: $(25,000/2,500)*10 = \$100/\text{month}$
- Industrial Property with 1,000,000 square feet of impervious area: $(1,000,000/2,500)*10 = \$4,000/\text{month}$

D. Proposed Stormwater Fee Options

Based on the current and proposed expenditures for stormwater related needs as presented to Council the past three months, staff has developed four options for a stormwater utility fee for Council's consideration. The first option would be for the rate to be based on fully funding all existing and proposed stormwater expenditures within the City, including all the proposed capital projects and equipment replacement. The second option would be a phased-in approach where the fee would be increased equally over a period of four years up to the full rate. The third option would be to establish the rate to only cover the enhancements to the current stormwater program and new capital projects. Under the third option, the stormwater fee would not cover any of the costs of the current stormwater program. The fourth option would be for Council to set the rate at their discretion somewhere between \$0 and the full rate under Option #1. Under all options, it is assumed that the initial stormwater fee billing would occur in May 2015.

1. Option #1 – Full Implementation and Cost Recovery

Attachment A provides a summary of all of the existing and proposed expenditures for all stormwater activities over the next five fiscal years that could be funded by a stormwater utility. A summary of the proposed stormwater fee schedule and the total expenditures per year is follows:

Date	ERU Stormwater Fee
May 1, 2015	\$10.67/month

Year	Total Revenues
FY15	\$435,000
FY16 – FY19	\$2,600,000

Under Option #1, in order to generate \$2,600,000 annually to fully cover all stormwater related expenditures, the ERU monthly fee would need to be \$10.67. This means the stormwater fee for every single-family residential property in the City would be \$10.67 per month, and the fee for all other properties would be \$10.67/month for every 2,495 sq. feet of impervious surface area on the property.

2. Option #2 – Phased Implementation (Full Cost Recovery)

Under this option, the stormwater fee would be phased in over a period of 4 years up to an ERU fee of \$10.67 per month in the fourth year. Under this option, the following summarizes the proposed stormwater fee schedule and the total amount of revenue that would be collected:

Date	ERU Stormwater Fee
May 1, 2015	\$2.67/month
May 1, 2016	\$5.33/month
May 1, 2017	\$8.00/month
May 1, 2018	\$10.67/month

Year	Total Revenue
FY15	\$110,000
FY16	\$650,000
FY17	\$1,300,000
FY18	\$1,950,000
FY19	\$2,600,000

Attachment B provides a summary of the expenditures that the stormwater utility would fund over the next five fiscal years. A phased-in approach would help “soften” the impact of this proposed new fee to the residents and businesses of the City.

3. Option #3 – Enhanced Program and New Project Recovery Only

Attachment C provides a summary of the expenditures that the stormwater utility would fund under this option. It would only cover the costs of the proposed enhanced stormwater program (stormwater engineer, additional maintenance crew, additional street sweeper) and the new capital projects. The following summarizes the proposed stormwater fee schedule under this option and the total amount of revenue that would be collected:

Date	ERU Stormwater Fee
May 1, 2015	\$5.33/month
May 1, 2016	\$5.33/month
May 1, 2017	\$6.97/month

Year	Total Revenue
FY15	\$210,000
FY16	\$1,300,000
FY17	\$1,300,000
FY18	\$1,700,000
FY19	\$1,700,000

4. Option #4 – Council to Determine Rate at Their Discretion

The final option for determining the stormwater fee is for City Council to set the rate at their discretion. The rate could be set anywhere between \$0.00 and the full cost of the program (\$10.67/month).

E. Proposed Fee Comparison with other Stormwater Utilities in Virginia

Figures 1 and 2 provides charts that compare the proposed fees under Option #2 with the current stormwater fees of the other existing stormwater utilities in Virginia.

F. Stormwater Fee Waivers

The Code of Virginia requires that full waivers for stormwater fees be provided for the following:

1. A federal, state, or local government, or public entity, that holds a permit to discharge stormwater from a municipal separate storm sewer system; except that the waiver of charges shall apply only to property covered by any such permit. This waiver would apply to the City Yards property as the City does have a separate permit for this property.
2. Public roads and street rights-of-way that are owned and maintained by state or local agencies including property rights-of-way acquired through the acquisitions process.

G. Stormwater Fee Credits

The Code of Virginia also requires or allows a locality to provide a full or partial waiver of stormwater fees as follows:

1. A locality adopting such a system shall provide for full or partial waivers of charges to any person who installs, operates, and maintains a stormwater management facility that achieves a permanent reduction in stormwater flow or pollutant loadings. The locality shall base the amount of the waiver in part on the percentage reduction in stormwater flow or pollutant loadings, or both, from pre-installation to post-installation of the facility. No locality shall provide a waiver to any person who does not obtain a stormwater permit from the Department of Environmental Quality when such permit is required by statute or regulation. The only property in the City where this waiver would apply is O'Sullivan Films as they have a separate stormwater permit from DEQ. Other stormwater utilities in Virginia provide a waiver of between 10% and 100% of their stormwater fees in these cases.
2. A locality adopting such a system may provide for full or partial waivers of charges to cemeteries, property owned or operated by the locality administering the program, and public or private entities that implement or participate in strategies, techniques, or programs that reduce stormwater flow or pollutant loadings, or decrease the cost of maintaining or operating the public stormwater management system.

A partial waiver of fees is typically called a credit system. Credits in a stormwater utility accommodate and acknowledge stormwater stewardship practices. Offering credits recognizes that private activities can reduce the need for some specific public stormwater services and are granted to qualifying properties based on established criteria.

All of the stormwater utilities in Virginia provide for possible credits for non-residential properties. These credits are usually divided up between stormwater quality and stormwater quantity controls. There is usually a maximum credit that is possible that currently ranges between 10% and 60% of the total stormwater fees.

Only six of the existing stormwater utilities in Virginia allow credits for residential properties. Examples of activities that residential property owners can implement for credits includes: bio-retention facilities, use of rain barrels, and use of pervious pavement.

Establishing the stormwater fee credit system is entirely at the discretion of City Council. Public Services is currently developing a detailed credit system proposal that will be presented to City Council at the March work session. As currently being drafted, this proposal would provide for the maximum possible credits as follows:

Property Type	Maximum Credit
VPDES Industrial Permit (O'Sullivan Films)	90%
Non-Residential	50%
Residential	50%

H. 20 Largest Stormwater Utility Customers

As a part of their analysis, GKY has compiled the list of the 20 properties within the City that have the highest amount of impervious surface. This list is provided in Attachment D. This list provides the total amount of impervious surface, the number of ERU's the property has, and what the monthly stormwater fee would be for different rates.

Figure 1
Stormwater Utility Fee Comparisons
Single Family Residential Property

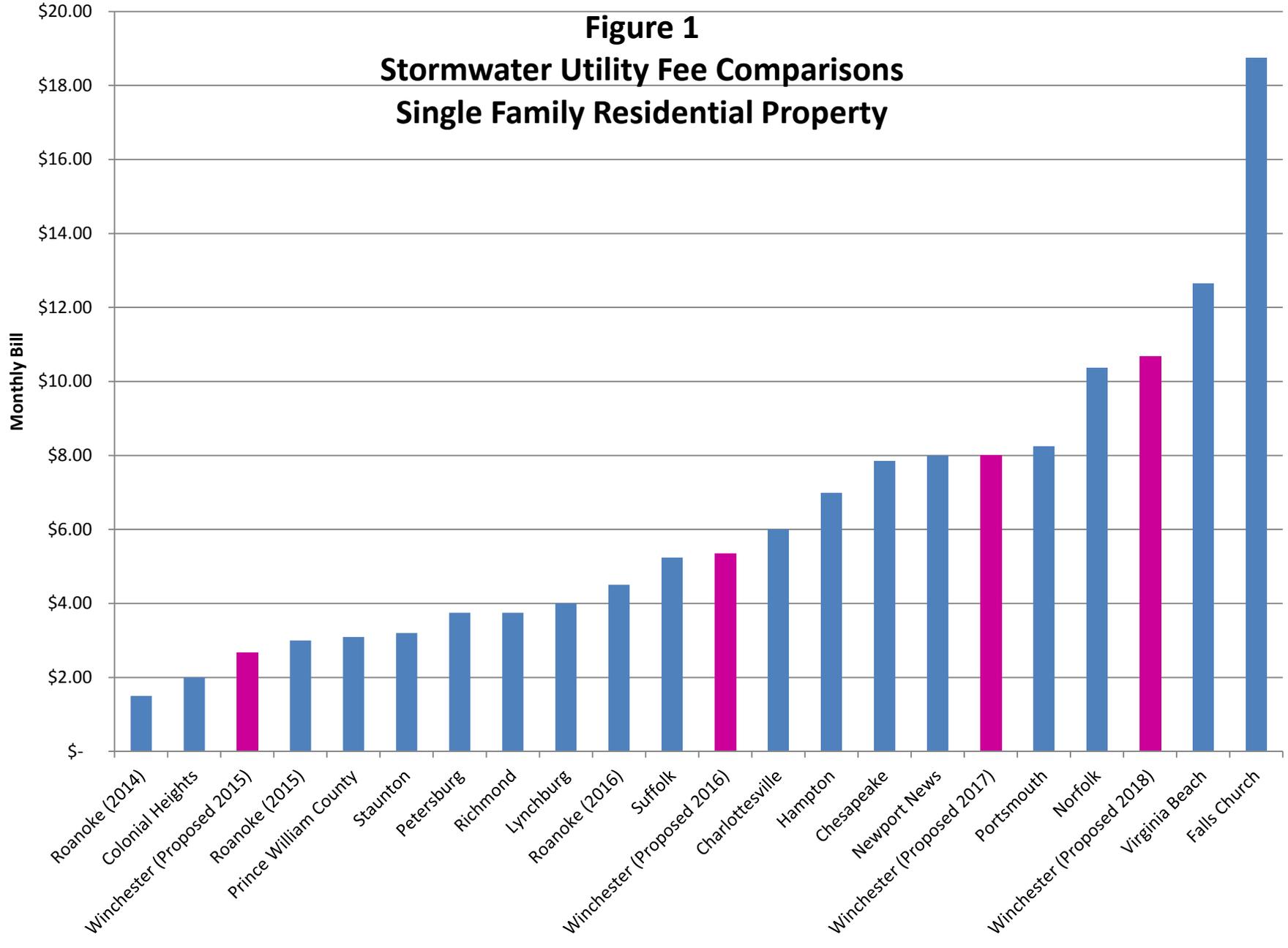
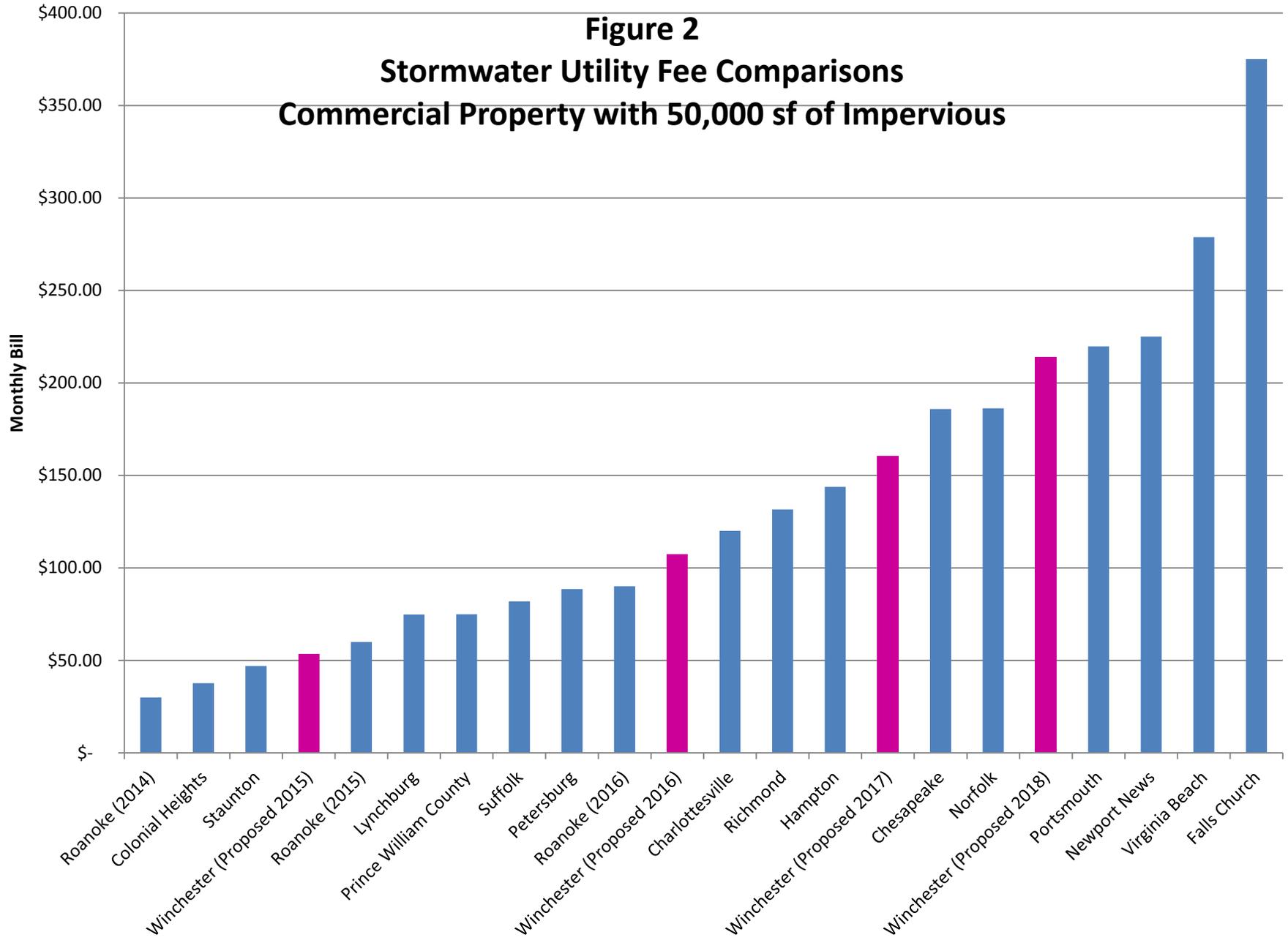


Figure 2
Stormwater Utility Fee Comparisons
Commercial Property with 50,000 sf of Impervious



Attachment A
Proposed Expenditures for Option #1
Full Program and Cost Recovery by Stormwater Utility

Draft: 2/9/14

Expenditure	FY15	FY16	FY17	FY18	FY19
<i>Stormwater Program Enhancements</i>					
Add Stormwater Engineer Position	\$ 85,000	\$ 87,550	\$ 90,177	\$ 92,882	\$ 95,668
Add Additional Street Sweeper		\$ 75,000	\$ 77,250	\$ 79,568	\$ 81,955
Add New 3-person Crew for Stormwater System Maintenance		\$ 175,000	\$ 180,250	\$ 185,658	\$ 191,227
Complete System Inventory/Master Plan		\$ 100,000	\$ 100,000	\$ 100,000	
Educational Program		\$ 25,000	\$ 25,750	\$ 26,523	\$ 27,318
New Utility Billing/Customer Information System	\$ 110,000				
Small Stormwater Infrastructure Projects		\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000
Equipment - New Street Sweeper		\$ 180,000			
Equipment - New Pickup Truck for Stormwater Maintenance Crew		\$ 35,000			
Equipment - Storm Drain Camera System		\$ 100,000			
Equipment - Jet/Vac Truck for System Maintenance				\$ 250,000	
Debt Service - Capital Projects			\$ 225,000	\$ 350,000	\$ 500,000
<i>Existing Stormwater Program/Activities</i>					
Public Works (Street sweeping and system maintenance)	\$ 60,000	\$ 250,000	\$ 257,500	\$ 265,225	\$ 273,182
Engineering (Regulatory compliance, E&S, Flood program, etc.)	\$ 80,000	\$ 300,000	\$ 309,000	\$ 318,270	\$ 327,818
Utilities Admin. (Billing and program management)		\$ 135,000	\$ 139,050	\$ 143,222	\$ 147,518
Utilities - Transfer to General Fund		\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000
General Fund (GIS, Consulting, etc.)	\$ 60,000	\$ 60,000	\$ 61,800	\$ 63,654	\$ 65,564
Equipment - Street Sweeper Replacements			\$ 185,000		\$ 190,000
Equipment - Dump Truck Replacements		\$ 100,000			
Equipment - Vehicle Replacements			\$ 35,000	\$ 37,000	\$ 39,000
Credits/Cash Reserves (Emergency Infrastructure Replacement)	\$ 40,000	\$ 327,450	\$ 264,224	\$ 38,000	\$ 10,750
Totals	\$ 435,000	\$ 2,600,000	\$ 2,600,000	\$ 2,600,000	\$ 2,600,000
ERU Fee/month	\$ 10.67	\$ 10.67	\$ 10.67	\$ 10.67	10.67

Attachment B
Proposed Expenditures for Option #2
Phased In - Full Program and Cost Recovery by Stormwater Utility

Draft: 2/9/14

Expenditure	FY15	FY16	FY17	FY18	FY19
<i>Stormwater Program Enhancements</i>					
Add Stormwater Engineer Position	\$ 85,000	\$ 87,550	\$ 90,177	\$ 92,882	\$ 95,668
Add Additional Street Sweeper		\$ 75,000	\$ 77,250	\$ 79,568	\$ 81,955
Add New 3-person Crew for Stormwater System Maintenance		\$ 175,000	\$ 180,250	\$ 185,658	\$ 191,227
Complete System Inventory/Master Plan		\$ 100,000	\$ 100,000	\$ 100,000	
Educational Program			\$ 25,000	\$ 25,750	\$ 26,523
New Utility Billing/Customer Information System	\$ 15,000		\$ 25,000	\$ 25,000	\$ 25,000
Small Stormwater Infrastructure Projects			\$ 250,000	\$ 400,000	\$ 412,000
Equipment - New Street Sweeper		\$ 160,000			
Equipment - New Pickup Truck for Stormwater Maintenance Crew		\$ 35,000			
Equipment - Storm Drain Camera System				\$ 100,000	
Equipment - Jet/Vac Truck for System Maintenance				\$ 250,000	
Debt Service - Capital Projects			\$ 225,000	\$ 350,000	\$ 500,000
<i>Existing Stormwater Program/Activities</i>					
Public Works (Street sweeping and system maintenance)			\$ -	\$ 25,000	\$ 200,000
Engineering (Regulatory compliance, E&S, Flood program, etc.)			\$ -	\$ 25,000	\$ 250,000
Utilities Admin. (Billing and program management)			\$ -	\$ 50,000	\$ 143,222
Utilities - Transfer to General Fund					\$ 200,000
General Fund (GIS, Consulting, etc.)			\$ 61,800	\$ 63,654	\$ 65,564
Equipment - Street Sweeper Replacements			\$ 185,000		\$ 190,000
Equipment - Dump Truck Replacements					
Equipment - Vehicle Replacements			\$ 35,000	\$ 37,000	\$ 39,000
Credits/Cash Reserves (Emergency Infrastructure Replacement)	\$ 10,000	\$ 17,450	\$ 45,524	\$ 140,489	\$ 179,842
Totals	\$ 110,000	\$ 650,000	\$ 1,300,000	\$ 1,950,000	\$ 2,600,000
ERU Fee/month	\$ 2.67	\$ 2.67	\$ 5.33	\$ 8.00	\$ 10.67

Attachment C
Proposed Expenditures for Option #3
Enhanced Program/New Projects Cost Recovery by Stormwater Utility

Draft: 2/9/14

Expenditure	FY15	FY16	FY17	FY18	FY19
<i>Stormwater Program Enhancements</i>					
Add Stormwater Engineer Position	\$ 85,000	\$ 87,550	\$ 90,177	\$ 92,882	\$ 95,668
Add Additional Street Sweeper		\$ 75,000	\$ 77,250	\$ 79,568	\$ 81,955
Add New 3-person Crew for Stormwater System Maintenance		\$ 175,000	\$ 180,250	\$ 185,658	\$ 191,227
Complete System Inventory/Master Plan		\$ 100,000	\$ 100,000	\$ 100,000	
Educational Program		\$ 25,000	\$ 25,750	\$ 26,523	\$ 27,318
New Utility Billing/Customer Information System	\$ 110,000				
Small Stormwater Infrastructure Projects		\$ 400,000	\$ 412,000	\$ 424,360	\$ 437,091
Equipment - New Street Sweeper		\$ 180,000			
Equipment - New Pickup Truck for Stormwater Maintenance Crew		\$ 35,000			
Equipment - Storm Drain Camera System		\$ 100,000			
Equipment - Jet/Vac Truck for System Maintenance				\$ 250,000	
Debt Service - Capital Projects			\$ 225,000	\$ 350,000	\$ 500,000
<i>Existing Stormwater Program/Activities</i>					
Public Works (Street sweeping and system maintenance)					
Engineering (Regulatory compliance, E&S, Flood program, etc.)					
Utilities Admin. (Billing and program management)					
Utilities - Transfer to General Fund					
General Fund (GIS, Consulting, etc.)					
Equipment - Street Sweeper Replacements					
Equipment - Dump Truck Replacements					
Equipment - Vehicle Replacements					
Credits/Cash Reserves (Emergency Infrastructure Replacement)	\$ 15,000	\$ 122,450	\$ 189,574	\$ 191,011	\$ 366,741
Totals	\$ 210,000	\$ 1,300,000	\$ 1,300,000	\$ 1,700,000	\$ 1,700,000
ERU Fee/month	\$ 5.33	\$ 5.33	\$ 5.33	\$ 6.97	6.97

Attachment D - Twenty largest properties based on impervious area

Draft: 2/9/14

Note: The monthly bill shown does not factor in any waivers/credits of fees.

Rank	Property Owner	IMP_AREA_FT ²	ERU	ERU Total	ERU Fee (\$/month)			
					\$ 2.67 Monthly Bill	\$ 5.33 Monthly Bill	\$ 8.00 Monthly Bill	\$ 10.67 Monthly Bill
1	WINCHESTER MEDICAL CENTER INC	2,128,655	2495	853	\$ 2,278	\$ 4,547	\$ 6,825	\$ 9,103
2	NATIONAL FRUIT PROD CO INC	1,493,383	2495	599	\$ 1,598	\$ 3,190	\$ 4,788	\$ 6,387
3	RUBBERMAID COMMERCIAL PROD INC	1,425,538	2495	571	\$ 1,526	\$ 3,045	\$ 4,571	\$ 6,096
4	CITY OF WINCHESTER	1,294,554	2495	519	\$ 1,385	\$ 2,766	\$ 4,151	\$ 5,536
5	MAYFLOWER APPLE BLOSSOM LP	1,288,465	2495	516	\$ 1,379	\$ 2,753	\$ 4,131	\$ 5,510
6	DDRM APPLE BLOSSOM CORNERS LLC	907,097	2495	364	\$ 971	\$ 1,938	\$ 2,909	\$ 3,879
7	SHENANDOAH UNIVERSITY	856,971	2495	343	\$ 917	\$ 1,831	\$ 2,748	\$ 3,665
8	WAL-MART REALTY COMPANY	771,783	2495	309	\$ 826	\$ 1,649	\$ 2,475	\$ 3,301
9	FEDERAL MOGUL CORP	729,169	2495	292	\$ 780	\$ 1,558	\$ 2,338	\$ 3,118
10	WALTER ENTERPRISES LC	706,827	2495	283	\$ 756	\$ 1,510	\$ 2,266	\$ 3,023
11	P D K WINCHESTER LC	650,548	2495	261	\$ 696	\$ 1,390	\$ 2,086	\$ 2,782
12	O'SULLIVAN FILMS INC	649,046	2495	260	\$ 695	\$ 1,387	\$ 2,081	\$ 2,776
13	SIR PROPERTIES TRUST	609,323	2495	244	\$ 652	\$ 1,302	\$ 1,954	\$ 2,606
14	COLE MT WINCHESTER VA LLC	589,449	2495	236	\$ 631	\$ 1,259	\$ 1,890	\$ 2,521
15	ALL POINTS PROPERTIES LLC	528,210	2495	212	\$ 565	\$ 1,128	\$ 1,694	\$ 2,259
16	SCHOOL BOARD CITY/WINCHESTER	505,697	2495	203	\$ 541	\$ 1,080	\$ 1,621	\$ 2,163
17	LOWE'S HOME CENTER INC	467,335	2495	187	\$ 500	\$ 998	\$ 1,498	\$ 1,999
18	FREDERICK CO SCHOOL BOARD	433,171	2495	174	\$ 464	\$ 925	\$ 1,389	\$ 1,852
19	O'SULLIVAN FILMS INC	426,777	2495	171	\$ 457	\$ 912	\$ 1,368	\$ 1,825
20	NORTHWOOD GROUP OF VIRGINIA LLC	422,541	2495	169	\$ 452	\$ 903	\$ 1,355	\$ 1,807