



City of Harrisonburg Stormwater Advisory Committee

Agenda: Meeting No. 06

July 9, 2014 5:00 – 7:00 p.m.

5:00 – 5:05	1. Review and Adopt Minutes
5:05 – 5:10	2. Public Comment (limited to 3 minutes per speaker)
5:10 – 5:25	3. Review SWAC Schedule & Goals <ul style="list-style-type: none"> a. July 2014 SWAC meeting – Provide recommendations regarding policy issues b. August 2014 SWAC meeting – Review draft Stormwater Utility Ordinance and Fee Structure c. September 2014 SWAC meeting – Recommend proposed Stormwater Utility Ordinance and Fee Structure to be sent to City Council for consideration and Public Hearing d. 2nd Council Meeting in September 2014 – Present to City Council e. October – Facilitate open house-style public meetings / public hearings f. January 2015 – City Council to vote on Stormwater Utility Ordinance and Fee Structure g. July 1, 2015 – Proposed effective date of Stormwater Utility Ordinance and Fee
5:35 – 6:45	4. Stormwater Utility Fee Discussion and Recommendations <ul style="list-style-type: none"> a. Previous Decisions / Recommendations <ul style="list-style-type: none"> i. Funding Mechanism – Utility Fee ii. Method of Billing – Real Estate Bill iii. Exemptions – none b. Policy Issues <ul style="list-style-type: none"> i. Method of Billing Calculation – based on actual impervious areas <ul style="list-style-type: none"> 1. ERU rate with tiered rate system for non-single-family residential land uses; 2. ERU rate with rate for non-single-family residential land uses based on actual no. of ERUs; or 3. Cost per billing unit (e.g. \$0.90 / 500 sf of impervious area). ii. Minimum fee per parcel, if applicable iii. Stormwater programs to be funded by utility iv. Basis of Initial Bill Rate v. Bill Rate Increases c. Credit System Options
6:45 – 6:55	5. General Questions / Discussion
6:55 – 7:00	6. Next Steps / Assignments



Members in attendance: Dale Chestnut, Kathy Holm, William Latham, Daniel Michael, Ted Byrd, J.M. Snell, Eldon Kurtz and Bill Jones.

Staff/Other in attendance: Thanh Dang, Carolyn Howard, Harsit Patel, Tom Hartman, Jim Baker, Jennifer Nunez, Kurt Hodgen, Dan Ruble and Jill Witkowski.

Welcome and Introductions

The SWAC meeting was promptly called to order and Chairman Bill Jones called for a motion to adopt meeting minutes.

Review and Adopt Minutes

J.M. motioned to adopt the April SWAC meeting minutes; Dale seconded and the motion unanimously passed.

The Chairman called for record of the May meeting tour to be accepted. J.M. motioned to approve the May meeting minutes and Eldon seconded. The motion unanimously passed.

Public Comment

There was no public comment offered.

Review Schedule

July 9, 2014 was the agreed upon date for the next SWAC meeting due to the July 4th holiday week falling on the regularly scheduled meeting date.

Shenandoah Valley Stormwater Financing Workshop Discussion

Thanh presented an overview of events from the Shenandoah Valley Stormwater Financing Workshop on May 22, 2014. The Environmental Finance Center in partnership with Central Shenandoah Planning District Commission hosted, while JMU provided the space. Four SWAC members and two Public Works staff were in attendance. One topic discussed was the Virginia Stormwater Management Program (VSMP). Shenandoah County staff reviewed a spreadsheet they used to calculate the cost of that program. The Environmental Finance Center presented on education and outreach being done in Pennsylvania, and innovative financing partnerships between public and private entities. The US Army Corps of Engineers presented on available funding opportunities. The workshop concluded with a discussion panel of representatives from the City of Harrisonburg, Waynesboro and Charlottesville. It was noted that Charlottesville had already adopted a Stormwater Utility fee. Waynesboro had

previously attempted to pass a fee but failed to approve it in Council and are currently re-evaluating a stormwater utility fee.

SWAC members who attended the workshop provided input on the importance of public outreach, insights on the Stormwater Utility fees and the importance of having a SWAC.

Daniel presented that he is exploring innovative financing opportunities to establish a 501(c)3, private non-profit organization to partner with the city to fund and implement stormwater management projects to meet the Chesapeake Bay TMDL special conditions of that MS4 permit. Daniel will present additional and more detailed information to city staff and the SWAC at a later time.

Stormwater Utility Fee Discussion and Recommendations (See Attachments A, B, and C)

Carolyn advised the SWAC that they will begin voting on policy matters to provide direction to staff and Draper Aden when outlining the parameters of the stormwater utility fee. The votes would be non-binding, and serve to provide guidance when making recommendations to City Council. The goal is to have a draft stormwater fee structure and ordinance by August, and start addressing the public.

A discussion point was raised in regards to services rendered from the proposed collection of fees. Although a complete capital project list to meet Chesapeake Bay TMDL special conditions for the next 15 years has not been developed, the stormwater retrofit study (2013) conducted on selected publicly owned property study has yielded valuable data for projects to meet the pollution reduction requirements for the first five years, 2013-2018. There are two proposed projects that meet the first 5 year pollution reduction requirements. A regenerative conveyance in the median of East Market Street, and projects at Heritage Oaks golf course will provide a great deal of pollution reduction. Administrative, Operational, Maintenance and Permit Compliance are other permit criteria areas that require funding. The SWAC members expressed concerns over addressing the public with limited information, but staff reaffirmed that project lists and projections were to follow.

Bill Latham moved that the SWAC pursue a Stormwater Utility fee to provide revenue for the stormwater program and that it is based upon an ERU and that single family residential units be charged at a rate of 1 ERU. Dale Chestnut seconded and the motion unanimously passed after some discussion.

a. Single Family Rate Applicability

The first vote for consideration was to raise revenue for MS4 compliance through either a stormwater utility fee or a real estate tax increase. A dialogue arose about the monetary impact to monthly utility fees, wherein staff stated that the revenue spreadsheet was based on initial estimates of impervious surface areas of non-residential properties within the City. More detailed and complete data will be available at the July SWAC meeting. It was established that single-family residence would be billed one ERU (equivalent residential unit) rate. This category would consist of houses, duplexes, townhomes, condos and mobile home units. The ERU for Harrisonburg was developed based on a random sampling of 100 single family detached lots within the City. When compared to similar localities and sampling, 3000 sq. feet was recommended ERU. The Stormwater Utility Proposed Revenue Worksheet shows

multiple property types calculated with a steadily increasing single ERU rate. This could also change to a selected steady rate if the SWAC so chooses. Examples with specific calculations of various property types were highlighted within the PowerPoint presentation, depicting GIS maps and data to support the calculations.

The policy issues discussion on single family rate applicability led to the review of the spreadsheets. Existing land use destinations within the GIS were used to create the ERUs throughout the City, and are considered rough estimates. Changes will be made to the single family rate ERU. Factors such as a 2% impervious growth rate, 5% removal of credits and a 95% collection rate were all reflected within the totals. The commercial ERUs are based on initial estimates of impervious surface areas, and will be updated after Draper Aden concludes compiling the GIS data.

The SWAC asked, and staff agreed, to review the calculated ERU of 3,000 sq. feet again and to include duplexes, townhomes, condos, and mobile home units into the random sampling. Staff and Draper Aden Associates will report the new sampling information to the SWAC in July.

A range of credits will eventually be offered. Charlottesville and Lynchburg currently have residential and commercial stormwater utility credit manuals that break down that amount of credits for various BMPs. The cost of a Stormwater Utility Administrator has been factored, as well as a 2% growth within Misc. Administrative, Operations and Maintenance and VSMP Compliance. There was discussion about the 15 year projection vs. using a 10 year model for public presentation.

b. Method of Billing

Concerning the method of billing, options include:

- (i) Include the stormwater utility fee on real estate tax bill, which is billed to property owners
- (ii) Create a separate stormwater utility bill, which is billed to property owners
- (iii) Include the stormwater utility fee onto the current water/ sanitary sewer/ refuse/ solid waste management bill, which is not always sent to the property owner, but sometimes sent to tenants.

Upon discussion of the pros and cons of each method, Daniel Michael called for a motion to pursue Stormwater Utility Fee billing as a separate line item included on the real-estate tax bill. Eldon Kurtz seconded and the motion unanimously passed.

c. Exemptions

Carolyn reminded the SWAC that localities are only required to provide exemptions to entities that have an MS4 permit from the state (such as JMU) and for public roads and street rights of ways. Research of other localities found that it is uncommon to provide exemptions to non-profit organizations, cemeteries, schools, and city owned facilities. There was discussion concerning property lines, parcel division and vacant lands. A policy question arose as to how best apply fees to single structures on

multiple parcels. Staff will operate under the assumption that no exemptions will be provided, and present more information at the next meeting.

Public Education and Outreach Efforts

The City hosted a rain barrel workshop where staff utilized the opportunity to educate participants on stormwater management.

Thanh has been invited by Bella Luna and Friendly City Food Co-op to speak at the Food Film and our Valley summer series. She will introduce concepts of the movie “Water Blues, Green Solutions”, and share some of the City’s stormwater management and conservation efforts. Bella Luna restaurant on June 24th from 7-9pm. <http://friendlycity.coop/event/water-blues-green-solutions/>

JMU and Shenandoah Valley Builders Association will be hosting the Mid-Atlantic Sustainability Conference. Saturday September 6th at the Festival Conference will be open to the community, and City staff will be in attendance.

The staff requested help from the SWAC in reaching out to their local churches.

A request was made to create a fact sheet for handout by the SWAC when engaging the public in educational outreach.

Staff will work with the City’s Public Information Officer to develop a community survey for the Be Heard Harrisonburg website.

Jill Witkowski Director of the Choose Clean Water Coalition spoke about the coalition’s priority to help localities with stormwater management. They assisted Charlottesville with writing for a grant to cover promotional materials specific to the community. Interfaith Partners of the Chesapeake and the coalition have created a stewardship video which can be used as a tool when reaching out to the faith based community. <http://choosecleanwater.org/success-stories/stories/congregations-reduce-polluted-runoff/>

General Questions / Discussion

Questions were posed about the credit for French Drains / Filtration Strips, and the City’s yard waste collection and street sweeping programs. At this time clear guidance had not yet been provided, although different studies have offered recommendations. JM mentioned a catalogue of options that is available as a resource for City to utilize. Dan touched on the importance of a specific maintenance agreement for private BMPs applying for credit.

The next SWAC meeting will be held on July 9, 2014.

City of Harrisonburg's Stormwater Program

Stormwater Utility

A Balancing Act: Paying for Compliance



June 4, 2014

SWAC Recommendations (Voting)

- Official votes needed on policy issues to provide guidance to staff and Draper Aden Associates
- Votes are non-binding, recommendations to City Council



Funding Mechanism

First Official Vote...

- Stormwater Utility Fee or
- Property Tax Increase (\$0.01 ~ \$400,000)



Current Utility Development Assumptions

- Single-family
 - Traditional single-family residences
 - Duplex Units
 - Townhome Units
 - Condominium Units
 - Mobile Home Community Units (if individually owned)
- Range of Impervious Surface



Harrisonburg's ERU

- Random Sample of 100 Single-Family Lots
- 3,039 square feet
- Use 3,000 square feet

Staunton = 3,400 sf

Blacksburg = 3,300 sf

**LYNCHBURG = 2,672 SF
(SFU)**

Galax = 4,700 sf

Colonial Heights = 2,656 sf

RICHMOND = 1,450 SF



Condominium Unit Hunters Ridge Condos

	Total Parcel Area (sf)	Estimated Impervious Area (sf)	Monthly		Annually		Monthly		Annually	
			Monthly	Annually	Monthly	Annually	Monthly	Annually	Monthly	Annually
<i>Condominium (typical unit) - Hunters Ridge Condos</i>	474	474	\$4	\$48	\$6	\$72	\$8	\$96	\$10	\$120



Condominium Unit Park Rose Village

	Total Parcel Area (sf)	Estimated Impervious Area (sf)	Monthly	Annual	Monthly	Annually	Monthly	Annually	Monthly	Annually
<i>Condominium (typical unit) - Park Rose Village</i>	770	770	\$4	\$48	\$6	\$72	\$8	\$96	\$10	\$120



Townhouse Unit

ERU Rate:		\$4.00		\$6.00		\$8.00		\$10.00	
Total Parcel Area (sf)	Estimated Impervious Area (sf)	Monthly		Annually		Monthly		Annually	
		3,644	1,100	\$4	\$48	\$6	\$72	\$8	\$96



Single-Family Residence

ERU Rate:		\$4.00		\$6.00		\$8.00		\$10.00	
Total Parcel Area (sf)	Estimated Impervious Area (sf)	Monthly		Annually		Monthly		Annually	
		9,910	1,913	\$4	\$48	\$6	\$72	\$8	\$96



Applebee's

ERU Rate:		\$4.00		\$6.00		\$8.00		\$10.00	
Estimated Total Parcel Area (sf)	Impervious Area (sf)	Monthly		Annually		Monthly		Annually	
		17,220	9,173	\$12	\$147	\$18	\$220	\$24	\$294



Rise United Methodist Church

ERU Rate:		\$4.00		\$6.00		\$8.00		\$10.00	
Total Parcel Area (sf)	Estimated Impervious Area (sf)	Monthly		Annually		Monthly		Annually	
		13,657	9,397	\$13	\$150	\$19	\$226	\$25	\$301



“Bank of America Building”

ERU Rate:		\$4.00		\$6.00		\$8.00		\$10.00	
Total Parcel Area (sf)	Estimated Impervious Area (sf)	Monthly		Annually		Monthly		Annually	
		10,097	10,095	\$13	\$162	\$20	\$242	\$27	\$323



Microtel / Ramada

ERU Rate:		\$4.00		\$6.00		\$8.00		\$10.00	
Total Parcel Area (sf)	Estimated Impervious Area (sf)	Monthly	Annually	Monthly	Annually	Monthly	Annually	Monthly	Annually
		203,564	177,368	\$236	\$2,838	\$355	\$4,257	\$473	\$5,676



Graham Packaging

(Single Ownership)

ERU Rate:		\$4.00		\$6.00		\$8.00		\$10.00	
Total Parcel Area (sf)	Estimated Impervious Area (sf)	Monthly	Annually	Monthly	Annually	Monthly	Annually	Monthly	Annually
234,034	220,130	\$294	\$3,522	\$440	\$5,283	\$587	\$7,044	\$734	\$8,805



Spotswood Mobile Home Park

ERU Rate:		\$4.00		\$6.00		\$8.00		\$10.00	
Total Parcel Area (sf)	Estimated Impervious Area (sf)	Monthly		Annually		Monthly		Annually	
		515,115	228,229	\$304	\$3,652	\$456	\$5,477	\$609	\$7,303



Public Works Facility

ERU Rate:		\$4.00		\$6.00		\$8.00		\$10.00	
Total Parcel Area (sf)	Estimated Impervious Area (sf)	Monthly		Annually		Monthly		Annually	
		759,203	466,185	\$622	\$7,459	\$932	\$11,188	\$1,243	\$14,918



University Fields Apartments

(Single Ownership)

ERU Rate:		\$4.00		\$6.00		\$8.00		\$10.00	
Total Parcel Area (sf)	Estimated Impervious Area (sf)	Monthly	Annually	Monthly	Annually	Monthly	Annually	Monthly	Annually
1,025,281	512,544	\$683	\$8,201	\$1,025	\$12,301	\$1,367	\$16,401	\$1,708	\$20,502



Lowe's

ERU Rate:		\$4.00		\$6.00		\$8.00		\$10.00	
Total Parcel Area (sf)	Estimated Impervious Area (sf)	Monthly		Annually		Monthly		Annually	
		723,064	534,860	\$713	\$8,558	\$1,070	\$12,837	\$1,426	\$17,116



Valley Mall

ERU Rate:		\$4.00		\$6.00		\$8.00		\$10.00	
Total Parcel Area (sf)	Estimated Impervious Area (sf)	Monthly		Annually		Monthly		Annually	
		1,688,667	1,482,342	\$1,976	\$23,717	\$2,965	\$35,576	\$3,953	\$47,435



Summary of Examples

	ERU Rate:		\$4.00		\$6.00		\$8.00		\$10.00	
	Total Parcel Area (sf)	Estimated Impervious Area (sf)	Monthly	Annually	Monthly	Annually	Monthly	Annually	Monthly	Annually
<i>Condominium (typical unit) - Hunters Ridge Condos</i>	474	474	\$4	\$48	\$6	\$72	\$8	\$96	\$10	\$120
<i>Condominium (typical unit) - Park Rose Village</i>	770	770	\$4	\$48	\$6	\$72	\$8	\$96	\$10	\$120
<i>Townhouse</i>	3,644	1,100	\$4	\$48	\$6	\$72	\$8	\$96	\$10	\$120
<i>Single-Family</i>	9,910	1,913	\$4	\$48	\$6	\$72	\$8	\$96	\$10	\$120
<i>Applebee's</i>	17,220	9,173	\$12	\$147	\$18	\$220	\$24	\$294	\$31	\$367
<i>Rise United Methodist Church</i>	13,657	9,397	\$13	\$150	\$19	\$226	\$25	\$301	\$31	\$376
<i>Bank of America</i>	10,097	10,095	\$13	\$162	\$20	\$242	\$27	\$323	\$34	\$404
<i>Campus View Apartments</i>	488,791	149,161	\$199	\$2,387	\$298	\$3,580	\$398	\$4,773	\$497	\$5,966
<i>Microtel / Ramada</i>	203,564	177,368	\$236	\$2,838	\$355	\$4,257	\$473	\$5,676	\$591	\$7,095
<i>Graham Packaging</i>	234,034	220,130	\$294	\$3,522	\$440	\$5,283	\$587	\$7,044	\$734	\$8,805
<i>Spotswood Mobile Home Park</i>	515,115	228,229	\$304	\$3,652	\$456	\$5,477	\$609	\$7,303	\$761	\$9,129
<i>Public Works Facility</i>	759,203	466,185	\$622	\$7,459	\$932	\$11,188	\$1,243	\$14,918	\$1,554	\$18,647
<i>University Fields Apartments</i>	1,025,281	512,544	\$683	\$8,201	\$1,025	\$12,301	\$1,367	\$16,401	\$1,708	\$20,502
<i>Lowe's</i>	723,064	534,860	\$713	\$8,558	\$1,070	\$12,837	\$1,426	\$17,116	\$1,783	\$21,394
<i>Valley Mall</i>	1,688,667	1,482,342	\$1,976	\$23,717	\$2,965	\$35,576	\$3,953	\$47,435	\$4,941	\$59,294



Policy Issues

- Single-family Rate Applicability
- Method of Billing
 - Real Estate Bill (not a real estate tax)
 - Separate Stormwater Utility Bill
 - Water / Sewer / Refuse Bill
- Minimum Fee Per Parcel
- Exemptions – Non-profits, vacant land, cemeteries, city-owned facilities



Questions & Answers



City of Harrisonburg Stormwater Program Costs

Program Components	Current LOS	First 5 Year MS4 Permit Cycle						Second 5 Year MS4 Permit Cycle						Third 5 Year MS4 Permit Cycle					TOTAL	Notes / Information Requested
		FY 13/14	FY 2014 /2015	Future LOS	FY 2015 /2016	FY 2016 /2017	FY 2017 /2018	FY 2018 /2019	FY 2019/2020	FY 2020/ 2021	FY 2021/ 2022	FY 2022/ 2023	FY 2023/ 2024	FY 2024/ 2025	FY 2025/ 2026	FY 2026/ 2027	FY 2027/ 2028			
Misc. Administrative	N/A	\$39,000	\$126,000	N/A	\$80,000	\$82,000	\$84,000	\$86,000	\$88,000	\$90,000	\$92,000	\$94,000	\$96,000	\$98,000	\$100,000	\$102,000	\$105,000	\$1,362,000	Includes training and travel expenses, asset management software and support, grant application & administration support, membership to Virginia Municipal Stormwater Management Association (VAMSA). Note: higher cost in FY14/15 due to implementation and set up of new asset management software and stormwater utility billing software	
Administrative - Utility Administration Only	N/A	\$0	\$0	N/A	\$75,000	\$77,000	\$79,000	\$81,000	\$83,000	\$85,000	\$87,000	\$89,000	\$91,000	\$93,000	\$95,000	\$97,000	\$99,000	\$1,131,000	Assumes new 1 FTE (Stormwater Utility Administrator) plus cost billing software set up and license maintenance. (Cost of billing software are not definitive.)	
Operations and Maintenance	2.50	\$374,000	\$438,000	3.00	\$546,000	\$590,000	\$639,000	\$692,000	\$706,000	\$721,000	\$736,000	\$751,000	\$767,000	\$783,000	\$799,000	\$815,000	\$832,000	\$10,189,000	Includes storm sewer maintenance, street sweeper maintenance, stream/ channel maintenance, and BMP maintenance equipment and personnel. Household hazardous wastes collection, yard debris & fall leaf collection, and new/ replacement equipment purchases. Includes increase for cost of living and fuel adjustments, and increase number of BMPs overtime.	
Capital Improvement Projects	1.00	\$15,000	\$18,000	3.00	\$582,000	\$1,220,000	\$2,030,000	\$2,380,000	\$2,380,000	\$2,380,000	\$2,380,000	\$2,380,000	\$4,080,000	\$4,080,000	\$4,080,000	\$4,080,000	\$4,080,000	\$36,165,000	These capital improvement projects go above and beyond what is required for minimum compliance with Virginia Stormwater Management program. These capital improvement projects are to meet Chesapeake Bay TMDL requirements of MS4 permit; which for 2013-2018 is 5% pollutant reduction; next 5 years is 35% and then 60%. See also Chesapeake Bay TMDL Action Plan. They included projects on city owned properties, and partnerships with private property owners to cost-share on projects. Would best tie in with stormwater utility program. Last 3 years of first permit cycle builds up to prepare for second permit cycle projects.	
VSMP and MS4 Compliance	2.75	\$380,000	\$399,000	3.00	\$287,000	\$277,000	\$285,000	\$292,000	\$298,000	\$304,000	\$311,000	\$318,000	\$325,000	\$332,000	\$339,000	\$346,000	\$353,000	\$4,846,000	Includes annual DEQ MS4 permit fee, public education & outreach, public involvement & participation, illicit discharge detection & elimination, construction site stormwater runoff control (E&S), post-construction stormwater management, pollution prevention/ good housekeeping for municipal operations, task orders (FY14-15) with Draper Aden to support compliance work including mapping, SWAC facilitation, stormwater utility feasibility study, and TMDL Action Plans.	
Overall Total Costs	2.08	\$808,000	\$981,000	3.00	\$1,570,000	\$2,246,000	\$3,117,000	\$3,531,000	\$3,555,000	\$3,580,000	\$3,606,000	\$3,632,000	\$5,359,000	\$5,386,000	\$5,413,000	\$5,440,000	\$5,469,000	\$53,693,000		
				Difference compared to previous year	\$589,000	\$676,000	\$871,000	\$414,000	\$24,000	\$25,000	\$26,000	\$26,000	\$1,727,000	\$27,000	\$27,000	\$27,000	\$29,000			

Last updated: 6/18/2014

This document is for discussion and planning purposes only and has not been presented or adopted by City Council.

Average FY15/16-FY27/28	\$3,993,000
Total FY15/16-FY27/28	\$51,904,000

Stormwater Utility Proposed Revenue Worksheet

1st 5-Year Permit Cycle	2nd 5-Year Permit Cycle	3rd 5-Year Permit Cycle
FY 14-15 ERU Rate = \$ 24.00 per Year \$ 2.00 per Month	FY 18-19 ERU Rate = \$ 48.00 per Year \$ 4.00 per Month	FY 23-24 ERU Rate = \$ 78.00 per Year \$ 6.50 per Month
FY 15-16 ERU Rate = \$ 30.00 per Year \$ 2.50 per Month	FY 19-20 ERU Rate = \$ 54.00 per Year \$ 4.50 per Month	FY 24-25 ERU Rate = \$ 84.00 per Year \$ 7.00 per Month
FY 16-17 ERU Rate = \$ 36.00 per Year \$ 3.00 per Month	FY 20-21 ERU Rate = \$ 60.00 per Year \$ 5.00 per Month	FY 25-26 ERU Rate = \$ 90.00 per Year \$ 7.50 per Month
FY 17-18 ERU Rate = \$ 42.00 per Year \$ 3.50 per Month	FY 21-22 ERU Rate = \$ 66.00 per Year \$ 5.50 per Month	FY 26-27 ERU Rate = \$ 96.00 per Year \$ 8.00 per Month
	FY 22-23 ERU Rate = \$ 72.00 per Year \$ 6.00 per Month	FY 27-28 ERU Rate = \$ 102.00 per Year \$ 8.50 per Month

<i>Equivlant Residential Unit (ERU) = 3000 SF of Impervious Area</i>				1st 5-Year Permit Cycle				2nd 5-Year Permit Cycle					3rd 5-Year Permit Cycle				
Property Type	Total Area (AC)	Assumed Impervious Area per Parcel (%)	Total ERU's	FY 2014-2015 Revenue	FY 2015-2016 Revenue	FY 2016-2017 Revenue	FY 2017-2018 Revenue	FY 2018-2019 Revenue	FY 2019-2020 Revenue	FY 2020-2021 Revenue	FY 2021-2022 Revenue	FY 2022-2023 Revenue	FY 2023-2024 Revenue	FY 2024-2025 Revenue	FY 2025-2026 Revenue	FY 2026-2027 Revenue	FY 2027-2028 Revenue
Residential (1 Unit = 1 Parcel)	N/A	N/A	10431	\$0	\$312,930	\$375,516	\$438,102	\$500,688	\$563,274	\$625,860	\$688,446	\$751,032	\$813,618	\$876,204	\$938,790	\$1,001,376	\$1,063,962
Commercial	1347	75	14669	\$0	\$440,065	\$528,078	\$616,091	\$704,104	\$792,117	\$880,130	\$968,143	\$1,056,156	\$1,144,169	\$1,232,182	\$1,320,195	\$1,408,208	\$1,496,221
Golf Courses	339	15	738	\$0	\$22,150	\$26,580	\$31,010	\$35,440	\$39,870	\$44,301	\$48,731	\$53,161	\$57,591	\$62,021	\$66,451	\$70,881	\$75,311
Industrial	946	75	10302	\$0	\$309,058	\$370,870	\$432,681	\$494,493	\$556,305	\$618,116	\$679,928	\$741,740	\$803,551	\$865,363	\$927,175	\$988,986	\$1,050,798
Institutional	229	50	1663	\$0	\$49,876	\$59,851	\$69,827	\$79,802	\$89,777	\$99,752	\$109,728	\$119,703	\$129,678	\$139,653	\$149,629	\$159,604	\$169,579
Mixed Use	44	75	479	\$0	\$14,375	\$17,250	\$20,125	\$23,000	\$25,875	\$28,750	\$31,625	\$34,500	\$37,374	\$40,249	\$43,124	\$45,999	\$48,874
Parks and Recreation	236	15	514	\$0	\$15,420	\$18,504	\$21,588	\$24,672	\$27,756	\$30,840	\$33,925	\$37,009	\$40,093	\$43,177	\$46,261	\$49,345	\$52,429
Public Facilities	554	50	4022	\$0	\$120,661	\$144,793	\$168,926	\$193,058	\$217,190	\$241,322	\$265,455	\$289,587	\$313,719	\$337,851	\$361,984	\$386,116	\$410,248
Schools and Universities	961	50	6977	\$0	\$209,306	\$251,167	\$293,028	\$334,889	\$376,750	\$418,612	\$460,473	\$502,334	\$544,195	\$586,056	\$627,917	\$669,779	\$711,640
Vacant	1824	15	3973	\$0	\$119,180	\$143,016	\$166,852	\$190,688	\$214,524	\$238,360	\$262,196	\$286,032	\$309,868	\$333,704	\$357,540	\$381,377	\$405,213
Sub - Totals				\$0	\$1,613,022	\$1,935,626	\$2,258,230	\$2,580,835	\$2,903,439	\$3,226,044	\$3,548,648	\$3,871,252	\$4,193,857	\$4,516,461	\$4,839,065	\$5,161,670	\$5,484,274
Impervious Area Growth (2% per Year)				\$0	\$0	\$38,713	\$45,165	\$51,617	\$58,069	\$64,521	\$70,973	\$77,425	\$83,877	\$90,329	\$96,781	\$103,233	\$109,685
Removal Credits (5% per Year)				\$0	\$80,651	\$96,781	\$112,912	\$129,042	\$145,172	\$161,302	\$177,432	\$193,563	\$209,693	\$225,823	\$241,953	\$258,083	\$274,214
Collections (95% Return Rate)				\$0	\$1,532,371	\$1,875,622	\$2,188,225	\$2,500,829	\$2,813,433	\$3,126,036	\$3,438,640	\$3,751,243	\$4,063,847	\$4,376,451	\$4,689,054	\$5,001,658	\$5,314,261
Total Year Collections				\$0	\$1,451,720	\$1,817,553	\$2,120,478	\$2,423,404	\$2,726,329	\$3,029,255	\$3,332,180	\$3,635,106	\$3,938,031	\$4,240,957	\$4,543,882	\$4,846,808	\$5,149,733

Last updated: 6/3/2014

This document is for discussion and planning purposes only and has not been presented or adopted by City Council. Neither staff or the SWAC have endorsed the billing rates shown.

Average FY15/16-FY27/28	\$3,090,000
Total FY15/16-FY27/28	\$43,256,000



Memorandum

To: City of Harrisonburg Stormwater Advisory Committee, Tom Hartman, Thanh Dang, Harsit Patel, Chris Mueller

From: Carolyn Howard

Date: July 3, 2014

Project Name: City of Harrisonburg Stormwater Utility Fee Development

Project Number: C13126B-03

Subject: Policy Issues

cc: Julia Skare, Mike Futrell - Draper Aden Associates

Development of a stormwater utility fee and ordinance requires review of and recommendations regarding several policy issues. The following is a summary of policy issues noting current decisions and/or recommendation for each. This summary references the Virginia Stormwater Utility Law §15.2-2114 of the Code of Virginia, which is attached for reference.

1. Exemptions

- a. “Full waivers of charges” are required for, as per the Stormwater Utility Law,
 - i. Public roads and street rights-of-way and
 - ii. A federal, state, or local government, or public entity, that holds a permit to discharge stormwater from a municipal separate storm sewer system (MS4).

- b. “Full or partial waivers of charges” **may** be considered for, as per the Stormwater Utility Law,
 - i. Cemeteries;
 - ii. City of Harrisonburg owned properties; and
 - iii. 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.”

Recommendation: At the June SWAC meeting, the committee decided to recommend no exemptions, except for those explicitly exempted by law – JMU, VDOT, and public roads. Partial waivers, in the form of utility fee credits, must be provided for parcels that provide a reduction in stormwater flow or pollutant loadings.

2. Billing Mechanism

As per the Stormwater Utility Law, a locality may "...combine the billings for stormwater charges with billings for water or sewer charges, real property tax assessments, or other billings; in such cases, the locality may establish the order in which payments will be applied to the different charges."

Recommendation: At the June SWAC meeting, the committee decided to recommend billing the fee to the owner of the parcel with the real property tax bill. Additionally, the ordinance should be written such that the stormwater utility fee is paid first then the tax bill to insure a high rate of collections for the utility and provide an enforceable mechanism for payment.

3. Method of Billing Calculation

The following billing methodologies are all based on the amount of impervious area per parcel.

- a. **ERU Based Tiered Rate Structure:** A tiered structure is based on the ERU and amount of impervious area within a range of total impervious area. Typically this system has one (1) to three (3) flat rates for residential uses, except for apartment complexes, and for non-residential uses, the fee calculation is as follows:

$$\text{Fee} = (\text{AVG Area of Range} / \text{ERU Area}) \times (\text{ERU Rate})$$

The advantage to this methodology is its simplicity, resulting in lower administrative costs, and it is defensible against legal challenges, because it is based on impervious area.

A possible disadvantage to this method is that, since it is based on existing and a range of impervious area, large parcels with expansive paved surfaces may not be charged proportional to the contribution of stormwater runoff.

- b. **ERU Based Impervious Area Structure:** This methodology is based on the actual amount of impervious area on a parcel and the ERU. Typically this system has one (1) to three (3) flat rates for residential uses, except for apartment complexes.

$$\text{Fee} = (\text{Actual Impervious Area} / \text{ERU Area}) \times (\text{ERU Rate})$$

For apartment complexes and non-residential properties (e.g. commercial and institutional) actual impervious areas are mapped. This methodology will require

significant staff time in the development, maintenance, and updating of the system.

An advantage to this system is its basis on a single, credible parameter non-residential properties (including apartment complexes) which can be accurately measured and, therefore, reduces the risk against legal challenges.

A possible disadvantage to this method is that, residential properties are based on an existing range of impervious area which may be challenged.

- c. Cost Per Billing Unit Structure: This methodology is based on the actual amount of impervious area on a parcel and a cost per billing unit (e.g. \$0.90 per billing unit; billing unit = 500 sf of impervious area). Typically this system does not utilize a flat or tiered rate system for residential parcels, but charges each parcel for the number of billing units (rounded) regardless of land use and zoning.

$$\text{Fee} = (\text{Actual Impervious Area} / \text{Billing Unit}) \times (\text{Billing Rate})$$

This methodology requires detailed mapping of impervious areas, including residential uses, and will require significant staff time in the development, maintenance, and updating of the system.

An advantage to this system is its basis on a single, credible parameter which can be accurately measured and, therefore, reduces the risk against legal challenges.

Recommendation: City staff recommends the ‘cost per billing unit’ methodology. (Note: This recommendation has been changed from what was discussed at the June SWAC meeting.) Given increased effort required for detailed mapping of impervious areas, staff recommends that mapping would be updated following the completion of construction of said property (e.g. following receipt of a certificate of occupancy) and that a city wide update occurs at set intervals (e.g. once every 5 years).

4. Residential Flat Rate Applicability

If an ERU-based methodology with a flat or 3-tier single-family dwelling rate system is chosen, the applicability of the flat ‘residential’ rate to single-family, duplexes, townhomes, and/or condominium units must be determined. Since the ERU is typically based on single-family residential dwelling parcels only (3300 square feet for the City of Harrisonburg), the actual impervious area from a duplex, townhome, and condominium units, including common areas, is approximately the following percentage of the ERU of 3300 square feet.

Condominium	40-50%
Townhomes	60-70%
Duplex	70-80%

A modified ERU calculation was completed incorporating condominium, townhome, duplex, and single-family impervious areas for the City; the modified ERU is approximately 2,750 square feet.

Recommendation: With the staff recommendation of the ‘cost per billing unit’ methodology, this issue is not applicable. However, if an ERU based rate system is recommended by the committee, this issue will need to be discussed and a recommendation made for the development of the ordinance.

5. Minimum Fee Per Parcel

- a. Vacant lots without impervious surface (or with an impervious area less than the billing unit – e.g. 500 sf) may be charge either the minimum billing rate or \$0.

Recommendation: Staff recommends rounding calculated billing units to the next whole number. For example:

- Total impervious area = 385 sf
- Divide by 500 sf (one billing unit): $385 / 500 = 0.77$
- Round to next whole number: 0.77 rounds to 1 billing unit

- Total impervious area = 4,585 sf
- Divide by 500 sf (one billing unit): $4,585 / 500 = 9.17$
- Round to next whole number: 9.17 rounds to 10 billing units

The only properties that would not be charged a fee are lots that are truly undeveloped and have no impervious surfaces.

- b. Credit reductions *may* cause the fee for a particular parcel to be reduced to less than the cost per one (1) billing unit or one (1) ERU rate.

Recommendation: City staff recommendation forthcoming. Staff will develop a proposed method for calculating utility fee credits. (For examples, see Lynchburg and Charlottesville: <http://www.lynchburgva.gov/stormwater-credit-program> and <http://www.charlottesville.org/Index.aspx?page=2308>.)

6. Stormwater Programs To Be Funded By Utility Fee

The Law allows the utility fee to provide revenue for the following ‘stormwater only’ uses:

- a. Acquisition of property;
- b. Cost of administration;
- c. Engineering and design, debt retirement, construction costs for new facilities and enlargement or improvement of existing facilities, including dams, whether publicly or privately owned;
- d. Facility operation and maintenance, whether publicly or privately owned;
- e. Monitoring of stormwater control devices and ambient water quality monitoring; and
- f. Other permit compliance activities, such as, public education, watershed planning, and inspection and enforcement activities.

City staff presented to the committee budget estimates for the stormwater program through FY 2027/2028 with the following categories:

1. General administration
2. Utility fee administration
3. Operations and Maintenance
4. Capital Improvement Projects
5. VSMP and MS4 permit compliance

Recommendation: City staff recommendation forthcoming following discussion with SWAC at July meeting.

7. Basis of Initial Bill Rate / Future Bill Rate Increases

City staff presented to the committee budget estimates for the stormwater program through FY 2027/2028. Based on the stormwater programs recommended to be funded by the fee (see section 5 of this memorandum), the committee needs recommend the fiscal year budget that the initial stormwater utility fee will be based and how and when future increases will be assessed to meet the increasing revenue requirements.

- Will the increase be annually based on updated fiscal year program cost projections?
- Will the increase be biannually based on 2-year outlook of program cost projections? 3-year? 5-year?

Recommendation: City staff recommendation forthcoming following discussion with SWAC at July meeting.

§ 15.2-2114. Regulation of stormwater.

A. Any locality, by ordinance, may establish a utility or enact a system of service charges to support a local stormwater management program consistent with Article 2.3 (§ [62.1-44.15:24](#) et seq.) of Chapter 3.1 of Title 62.1 or any other state or federal regulation governing stormwater management. Income derived from a utility or system of charges shall be dedicated special revenue, may not exceed the actual costs incurred by a locality operating under the provisions of this section, and may be used only to pay or recover costs for the following:

1. The acquisition, as permitted by § [15.2-1800](#), of real and personal property, and interest therein, necessary to construct, operate and maintain stormwater control facilities;
2. The cost of administration of such programs;
3. Planning, design, engineering, construction, and debt retirement for new facilities and enlargement or improvement of existing facilities, including the enlargement or improvement of dams, levees, floodwalls, and pump stations, whether publicly or privately owned, that serve to control stormwater;
4. Facility operation and maintenance, including the maintenance of dams, levees, floodwalls, and pump stations, whether publicly or privately owned, that serve to control the stormwater;
5. Monitoring of stormwater control devices and ambient water quality monitoring; and
6. Other activities consistent with the state or federal regulations or permits governing stormwater management, including, but not limited to, public education, watershed planning, inspection and enforcement activities, and pollution prevention planning and implementation.

B. The charges may be assessed to property owners or occupants, including condominium unit owners or tenants (when the tenant is the party to whom the water and sewer service is billed), and shall be based upon an analysis that demonstrates the rational relationship between the amount charged and the services provided. Prior to adopting such a system, a public hearing shall be held after giving notice as required by charter or by publishing a descriptive notice once a week for two successive weeks prior to adoption in a newspaper with a general circulation in the locality. The second publication shall not be sooner than one calendar week after the first publication. However, prior to adoption of any ordinance pursuant to this section related to the enlargement, improvement, or maintenance of privately owned dams, a locality shall comply with the notice provisions of § [15.2-1427](#) and hold a public hearing.

C. A locality adopting such a system shall provide for full waivers of charges to 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; and
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.

D. 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.

E. 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.

F. Any locality may issue general obligation bonds or revenue bonds in order to finance the cost of infrastructure and equipment for a stormwater control program. Infrastructure and equipment shall include structural and natural stormwater control systems of all types, including, without limitation, retention basins, sewers, conduits, pipelines, pumping and ventilating stations, and other plants, structures, and real and personal property used for support of the system. The procedure for the issuance of any such general obligation bonds or revenue bonds pursuant to this section shall be in conformity with the procedure for issuance of such bonds as set forth in the Public Finance Act (§ [15.2-2600](#) et seq.).

G. In the event charges are not paid when due, interest thereon shall at that time accrue at the rate, not to exceed the maximum amount allowed by law, determined by the locality until such time as the overdue payment and interest are paid. Charges and interest may be recovered by the locality by action at law or suit in equity and shall constitute a lien against the property, ranking on a parity with liens for unpaid taxes. The locality may combine the billings for stormwater charges with billings for water or sewer charges, real property tax assessments, or other billings; in such cases, the locality may establish the order in which payments will be applied to the different charges. No locality shall combine its billings with those of another locality or political subdivision, including an authority operating pursuant to Chapter 51 (§ [15.2-5100](#) et seq.) of Title 15.2, unless such locality or political subdivision has given its consent by duly adopted resolution or ordinance.

H. Any two or more localities may enter into cooperative agreements concerning the management of stormwater.

(1991, c. 703, § 15.1-292.4; 1994, cc. [284](#), [805](#); 1997, cc. [331](#), [587](#); 1998, c. [182](#); 2003, c. [390](#); 2004, c. [507](#); 2005, c. [313](#); 2006, c. [11](#); 2009, c. [703](#); 2011, c. [452](#); 2013, cc. [756](#), [793](#).)

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