



Roanoke County Stormwater Advisory Committee



**Meeting 5 – Draft Program Review
December 12, 2013**

Agenda

- Welcome and Committee Business
- Review of Meeting #4
- Draft Program Overview and Discussion
- Second Prioritization Exercise
- Revenue Scenarios – Starting the Discussion
- Next Steps



Meeting #4 Review

- Continued levels of service discussion.
- Options broken into three levels:
 - Basic (minimum needed to meet need)
 - Medium
 - High (reflects higher local priority or expectation)
- Members participated in an exercise to prioritize available options.



Prioritization Results

Program Area	Number of Votes			
	Basic	Medium	High	Total
Storm Sewer Maintenance	0.5	17.5	2	20
Mapping/GIS	2	15	0	17
Equipment Replacement	5	11	0	16
Stormwater Project Backlog	1	7	7	15
Public Education and Outreach	7	3	3	13
TMDL Action Plans	9	3	0	12
Stream Maintenance	1	10	-	11
BMP Inspection and Maintenance	0	5	6	11
Illicit Discharge Detection & Elimination	8.5	1.5	1	11
Stormwater Regulations - Construction Inspection	10	0	-	10
Stormwater Regulations - VSMP Permit Administration	6	1	-	7
Stormwater Pollution Prevention Plans	4	2	0	6



Draft Program Discussion

Draft Program Discussion

- Allows members to see the cumulative impact of prioritization exercise.
- Considerations:
 - Costs are draft and for planning purposes only.
 - Inflationary factors are not considered at this time.
 - Organizational decisions will depend on a number of factors.
- Discussion will focus on non-basic areas and areas without consensus.
- A second prioritization exercise will allow members to react based on the draft program.



Draft Five-Year Program – Additional Costs



Program Area – Additional Program Costs	Year 1	Year 2	Year 3	Year 4	Year 5
Storm Sewer Maintenance	250,000	350,000	500,000	500,000	500,000
Mapping/GIS	70,000	70,000	70,000	70,000	70,000
Equipment Replacement	120,000	120,000	120,000	120,000	120,000
Stormwater Project Backlog	250,000	250,000	500,000	500,000	500,000
	250,000	750,000	900,000	900,000	900,000
Public Education and Outreach	21,250	21,250	21,250	21,250	21,250
TMDL Action Plans	140,000	200,000	250,000	300,000	350,000
Stream Maintenance	50,000	50,000	100,000	150,000	150,000
BMP Inspection and Maintenance	100,000	150,000	235,000	235,000	235,000
	500,000	750,000	1,000,000	1,250,000	1,500,000
Illicit Discharge Detection & Elimination	-	-	-	-	-
Stormwater Regulations – Administration and Construction Inspection	-	-	-	-	-
Stormwater Pollution Prevention Plans	14,000	14,000	7,000	5,000	5,000
Staff Training/Nutrient Management Plans	13,500	13,500	10,000	16,500	13,000
Total Draft Program – Additional Costs	1,028,750	1,238,750	1,813,250	1,917,750	1,964,250
	1,428,750	2,338,750	2,978,250	3,532,750	3,629,250
Current Program Costs	1,741,041	1,741,041	1,741,041	1,741,041	1,741,041
Total Draft Program	2,769,791	2,979,791	3,554,291	3,658,791	3,705,291
	3,169,791	4,079,791	4,719,291	5,279,791	5,370,291



Storm Sewer Maintenance

- System maintenance is currently conducted on a complaint basis rather than systematically.

Storm Sewer Maintenance	250,000	350,000	500,000	500,000	500,000
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- Draft Approach (Medium)
 - Conduct system-wide comprehensive assessment of conditions.
 - Ramp up to budget 1.0% of system replacement value annually (replacement cycle of ~100 years).
 - Cost is reduced assuming 50% overlap with Project Backlog budget area.

Storm Sewer Maintenance

■ Alternatives:

1. Continue current complaint-driven program.
2. Conduct system-wide comprehensive assessment of conditions. Adds to, but helps better prioritize, existing Project Backlog.
3. Budget different system replacement percentage (less than 1.0% annually).



Mapping/GIS

- Community Development does not have the ability to routinely update mapping, track inspection and enforcement data, or perform robust GIS analysis on pollutant loadings.

Mapping/GIS	70,000	70,000	70,000	70,000	70,000
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- Draft Approach (Medium)
 - Add 1 FTE to allow mapping updates and analysis on a continuous basis.

Mapping/GIS

■ Alternative:

1. Add only 0.5 FTE.

- Continue to obtain support as available from Communications and Information Technology.
- Periodically use interns to catch up with routine data entry.



Equipment Replacement

- Much of the existing equipment has exceeded life expectancy.
- Costs to replace equipment are not currently amortized.

Equipment Replacement	120,000	120,000	120,000	120,000	120,000
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- Draft Approach (Medium)
 - Amortize equipment costs for replacement over the next 10 years.

Equipment Replacement

■ Alternative:

1. Continue existing procedure of requesting appropriation when equipment is worn out; recommend to BOS that equipment replacement be a higher priority.

Stormwater Project Backlog

- The County has a significant backlog of identified drainage projects (currently ~\$3.5 million).
- Backlog is growing 10-15% per year.

Stormwater Project Backlog	250,000	250,000	500,000	500,000	500,000
	250,000	750,000	900,000	900,000	900,000

- Draft Approach (Medium)
 - Update County stormwater drainage plan.
 - Ramp up to two new storm drain crews (backlog cleared in 10 years).
- Draft Approach (High)
 - Same as medium. Use contractor (\$400,000 annually) to clear backlog in five years.

Stormwater Project Backlog

- Alternative:
 1. Add one new storm drain crew. Stops growth in backlog, but not cleared.



Stream Maintenance

- Maintenance and other projects on streams are typically based on complaints.
- Better understanding and prioritization can help with more efficient TMDL implementation and pursuing grant opportunities.

Stream Maintenance	50,000	50,000	100,000	150,000	150,000
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- Draft Approach (Medium)
 - Develop watershed management plans over five-year period.

Stream Maintenance

- Alternative:
 1. Maintain complaint-drive stream maintenance system.

BMP Inspection and Maintenance

- Existing inspection frequency does not meet new state minimum standards (once each five years).
- The County has a significant enforcement backlog (~130 out of ~650 private facilities non-compliant).
- There is no planning for the eventual replacement costs of ~40 public facilities.



BMP Inspection and Maintenance

BMP Inspection and Maintenance	100,000	150,000	235,000	235,000	235,000
	500,000	750,000	1,000,000	1,250,000	1,500,000

- Draft Approach (Medium):
 - Ramp up to \$120,000 annually to set aside for public facility replacement costs.
 - Add 1 FTE for inspection and maintenance support.
 - Add County Attorney enforcement support (30 facilities/year).
- Draft Approach (High):
 - County takes over maintenance of residential facilities serving more than 1 lot (425 facilities).
 - Add County Attorney enforcement support (5 facilities/year).

BMP Inspection and Maintenance

■ Alternatives:

1. Basic: Provide minimum standard by law and transfer some costs to property owners:
 - Ramp up to \$120,000 annually for public facility replacement costs.
 - Eliminate County inspections for non-residential facilities. Require non-residential facility owners to provide inspections by authorized 3rd parties.
 - Cut back technical support to HOAs, current inspector will perform residential inspections only.
 - Add County Attorney enforcement support (30 facilities/year).
2. Create stormwater management facility service district:
 - Create separate service district for HOAs with facilities. County imposes fee and manages basic maintenance (cost-neutral for County).
 - Economy of scale should reduce overall costs.
 - Reduces need for higher level of enforcement.



Basic LOS Areas

- Public Education and Outreach
- TMDL Action Plans
- Illicit Discharge Detection and Elimination
- VSMP Regulations
- Stormwater Pollution Prevention Plans
- Staff Training
- Nutrient Management Plans



Per Capita Cost Comparison

- Comparison is complex and direct comparison is almost impossible.
- Confidence in comparison depends on:
 - What activities are defined as stormwater for tracking purposes.
 - Whether the program continues to be partially supported by the general fund.
 - Whether the program has accounted for future needs and how fast those needs will be met.
- Figures presented are for the portion of the program covered by a separate fee.



City of Roanoke Program Levels

	Annual Program Cost	Population (2012 Estimate)	Annual Program Cost per Capita (\$)
Roanoke County			
Current Cost	1,700,000	84,000	20
Medium Option, Additional Cost in Year 5	1,960,000	84,000	23
High Option, Additional Cost in Year 5	3,630,000	84,000	43



Mix of Fee and General Fund Revenue – Total Program Unknown

Community	Annual Revenue from Stormwater Fee (\$)	Population (2012 Estimate)	Annual Stormwater Fee per Capita (\$)
City of Lynchburg	3,200,000	77,113	41
City of Staunton	725,000	23,921	30
City of Richmond	7,793,881	210,309	37
Fairfax County (plan review and erosion and sediment control program not covered by the fee)	40,200,000	1,118,602	36
Arlington County	8,002,000	221,045	36
Prince William County	9,420,604	430,289	22



Mix of Fee and General Fund Revenue – Total Program Better Known

Community	Annual Program Cost	Population (2012 Estimate)	Annual Program Cost per Capita (\$)
City of Charlottesville (cost of program increases for TMDL compliance)	2,606,200-4,081,200	43,956	59-93
City of Falls Church	1,643,000	13,229	124
City of Roanoke (not yet final – Year 5 of proposed program)	6,400,000	97,469	66



Prioritization Exercise

- The prioritization exercise will help:
 - Validate priorities from the last committee meeting.
 - Guide decisions for level of service areas without consensus.
 - Identify whether LOS alternatives are preferred based on an understanding of total program impacts.
- The scope of the draft program will be revisited after the discussion of funding scenarios.



Revenue Generating Options



Revenue Generation Options

- Continued reliance on the general fund
- Stormwater service district fee
- Stormwater utility fee
- Secondary sources of funding (minor)
 - Development fees
 - Grants



General Fund

- Distributes program cost based on property value.
- Key considerations:
 - Tax-exempt properties do not pay.
 - No relationship between program need and fees paid by property owners.
 - Funds are not legally segregated from other uses.
 - Budget level competes with other priorities on an annual basis; makes it more difficult to plan long-range projects.
 - Least complicated approach – uses existing budget process.



Service District Fee

- Distributes program cost based on property value.
- Key considerations:
 - Tax-exempt properties do not pay.
 - No relationship between program need and fees.
 - Funds are legally segregated from other uses.
 - Allows for greater program stability.
 - Does not provide credit for on-site stormwater facilities.
 - Relatively simple approach – requires establishment of service district by ordinance.

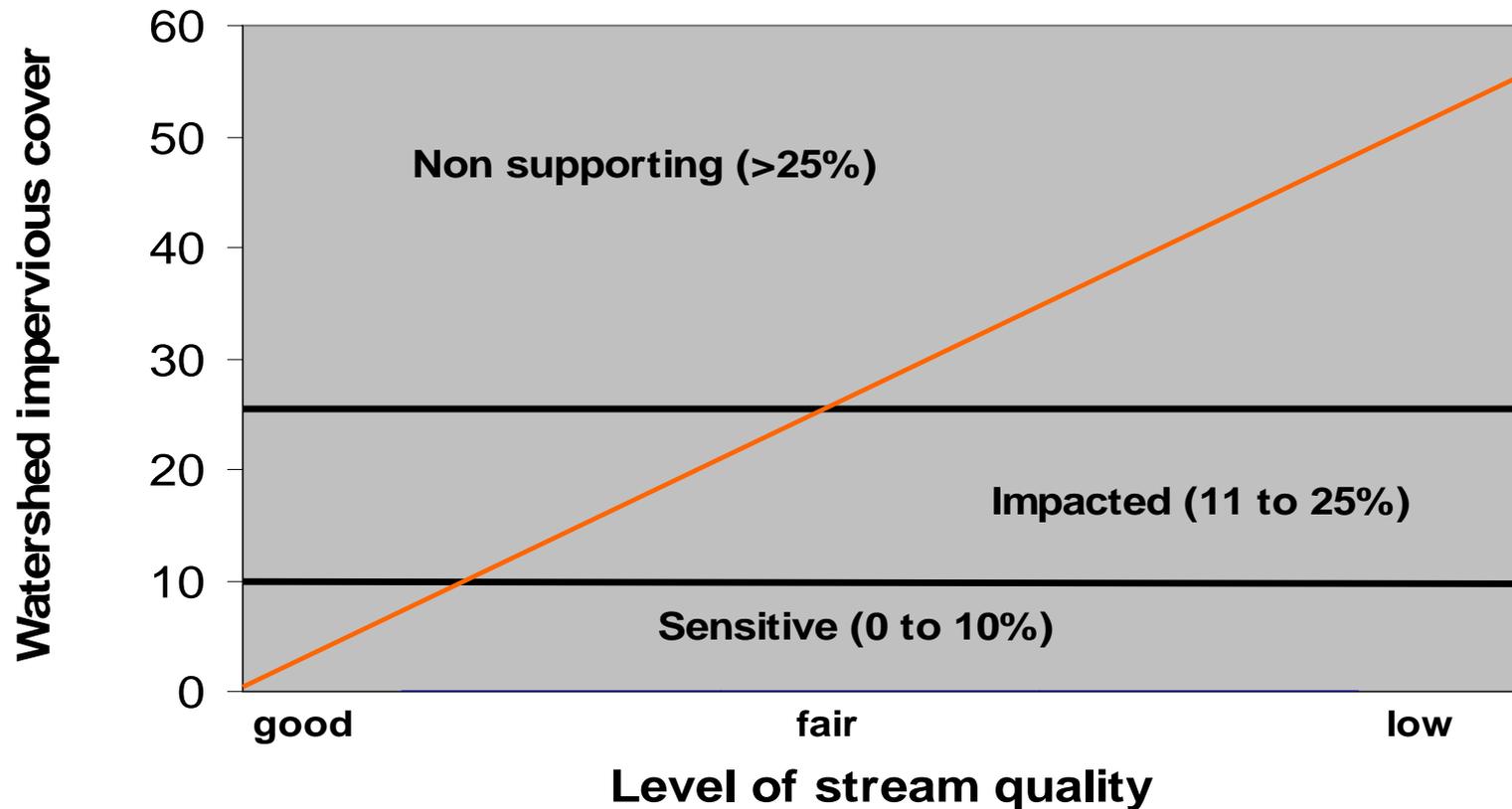


Stormwater Utility Fee

- Distributes program cost based on impervious cover.
- Key considerations:
 - Tax-exempt properties do pay.
 - Nexus between program need and fees.
 - Funds are legally segregated from other uses.
 - Allows for greater program stability.
 - Rate structure is flexible to accommodate community goals.
 - Does provide credit for on-site stormwater facilities.
 - More complex – requires ordinance and ability to track changes to impervious areas.



The Impervious Cover Model



Stormwater Utility Fee Options

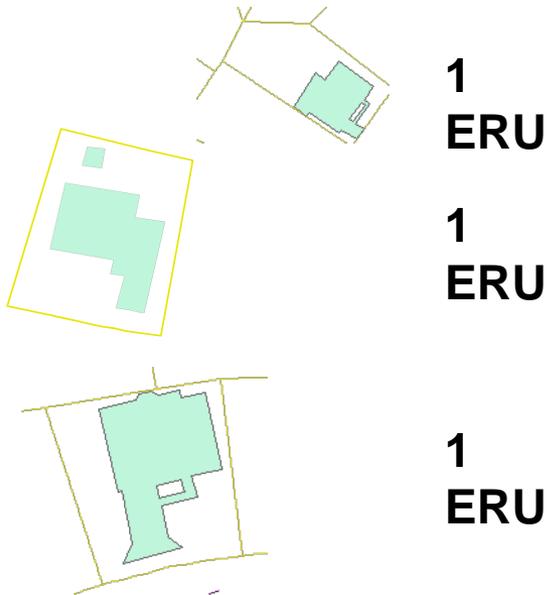
- Options depend on the supporting data and the goals of the community.
 - Straight impervious cover for all land use types.
 - Roanoke County's existing GIS will probably not support this option without considerable investment.
 - Flat rate for single family detached residential, with other uses billed in equivalent residential units (ERUs).
 - Tiered residential rates (under/over certain impervious cover thresholds).
 - Tiered rates for all land uses.
 - Additional factors to account for percent lot covered by impervious surface.



Flat Rate for SFR Detached Option

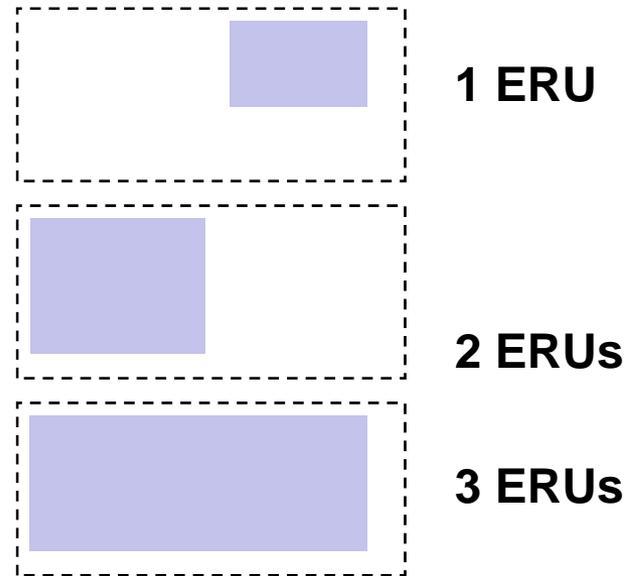
Any Single Family Detached House

One Billing Unit



Properties Other Than SFD Lots

Based on Average SF in a Billing Unit



Revenue Policy Considerations

- Should a fee apply equally County-wide or should the fee consider urban versus rural?
 - Both utility and service district support differentiation.
- To what extent is equity a priority? Utility fees:
 - Recognize the relationship between impervious cover and stormwater program costs.
 - Provide fee reduction (credit) for on-site facilities.
 - Includes tax-exempt properties (churches, federal government properties, etc.).
 - Allows for (but does not require) the County to charge itself.



Revenue Policy Considerations

- Most of these policy considerations affect how costs are spread among rate payers...



Preliminary Distribution of Program Costs

Description	% Market Value	% Market Value Minus Tax Exempt	% Impervious Cover
Single Family Detached	31%	47%	39%
Rural Single Family Detached	3%	5%	11%
Single Family Attached	2%	3%	1%
Residential Condo	1%	1%	5%
Mobile or Manufactured Home	1%	1%	1%
Non Profit	31%	0%	5%
Government	3%	0%	3%
Apartment	12%	18%	2%
Commercial Condo	0%	0%	0%
Non Residential	17%	26%	33%
Totals	100%	100%	100%

Impervious cover derived from 2008 automated land cover data and is considered preliminary. Impervious layer will need to be reviewed and refined. Many larger wooded parcels appear to have over-capture of impervious area.

Next Steps



Next Steps

- Next meeting:
 - Thursday, January 9th
 - South County Library
- Presentation on revenue generating scenarios.
- Detailed discussion of revenue policies.
- Final questions?

