



Water Resources Funding Advisory Committee

Recommendations on a Dedicated Funding Mechanism to Support Water Resources Protection Programs

**prepared for the
Albemarle County Board of Supervisors
October 7, 2015**

Executive Summary

The *Water Resources Funding Advisory Committee* was appointed by the Albemarle County Board of Supervisors to provide recommendations – based on community stakeholder input – on an alternative funding mechanism to support the County’s water resource protection programs. The Board’s interest in a new funding approach – separate from the General Fund – is driven by the anticipated increase in expenditures to: 1) meet increasing federal and state mandates to reduce water pollution, as exemplified by the Chesapeake Bay cleanup plan, 2) proactively maintain stormwater infrastructure, and 3) address the County’s commitment to protecting its water resources as expressed in the adopted Comprehensive Plan.

The type of funding mechanism, and its structure and features, dictates how the total program cost is shared, or distributed, among different County properties and property categories. This distribution should reflect – to the extent possible – community values, such as equity, and logistical considerations, such as stability and administrative feasibility.

The Committee – supported by County staff and a stormwater finance consultant – met monthly between September 2014 and August 2015 and facilitated a community engagement process during the months of June through August.

The Committee recommendations are summarized in the following table:

Recommendations	
CONSENSUS	Adopt a program that fully meets both <u>regulatory requirements</u> and <u>long-term needs and responsibilities</u> in a cost-efficient manner.
NARROW MAJORITY	Adopt a <u>stormwater utility</u> having a fee structure that relates the fee to a property's contribution to stormwater runoff and pollution discharges.
MAJORITY	Utilize a <u>single funding strategy</u> – as opposed to a hybrid, or combination, approach – to provide for program fairness and ease of implementation.
MAJORITY	Apply a <u>County-wide rate structure</u> with no differentiation between urban and rural areas.
CONSENSUS	Adopt a <u>billing unit of 500 square feet</u> of impervious surface area.
CONSENSUS	Ensure that the fee – to the extent possible – reflects a property's contribution to water pollution by effectively lowering the rate per billing unit through a <u>credit or rate adjustment</u> for properties: • having a low density of imperviousness • maintaining beneficial land cover conditions • providing onsite stormwater runoff management or pollutant controls
CONSENSUS	Include within the fee structure strong <u>financial incentives</u> for private investments that reduce stormwater impacts.
CONSENSUS	Allocate funding for <u>technical assistance</u> to help landowners determine how to implement practices to reduce their fee amount and improve water quality.

It should be noted that the Committee did not easily arrive at these recommendations. A large amount of learning, discussion, and deliberation went into each subject matter and it was necessary for Committee members to consider the various consequences of choices from many perspectives. In addition, the Committee was not unified in its viewpoints. As indicated, Committee support for the above recommendations ranged from *consensus* – defined as near-unanimous support – to *narrow majority*. Additional information regarding the Committee's majority and dissenting views – and the sentiments of the general public – is provided in the body of the report.

Although the Committee engaged in a relatively considerable public outreach and engagement process, the Committee did not have the resources necessary to gauge overall community sentiment with any degree of statistical precision – such as through a formal survey. Nonetheless, the Committee received abundant and varying feedback from the community through online surveys, emails, letters, and verbal comments at community events. There was general public support for the notion of protecting streams and lakes and recognition that the County must meet legal mandates and maintain its infrastructure. However, community members expressed various concerns including exceeding mandates and obligations, significantly increasing program costs, a belief that a separate mechanism would result in less transparency and unrestrained expansion, shifting the cost burden to particular groups (properties currently under land use taxation, tax-exempt organizations, large commercial properties), and perceived lack of personal benefit from the programs.

It should be recognized that the scope of the Committee's charge and the above recommendations are relatively broad. The Committee's effort to date and recommendations should be regarded as only a preliminary step in the more extensive process necessary to actually institute a funding mechanism.

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- A. County Guidance Documents and the State of the County's Water Resources
- B. Committee Charge Statement
- C. Committee's Priorities and Expectations
- D. Description of County Programs
- E. Program Plan Preferences Presented at January 2015 Work Session
- F. Community Outreach Summary

Background

County policy documents, such as the Comprehensive Plan and the FY15 – 17 Strategic Plan of the Board of Supervisors (Board), articulate aggressive goals for protecting water resources. While the County has long implemented a variety of stormwater management and resource protection programs, many of the streams within Albemarle County do not meet the State's water quality standards and are unsafe for recreation or not able to adequately support aquatic life. Recent increases in State mandates – including cleanup efforts for the Chesapeake Bay and local streams – require that County programs be expanded and new programs introduced. [Note: additional information regarding County goals and stream health is provided in Attachment A].

Recognizing the need for additional funding to support the program enhancements necessary to meet new mandates and better achieve County goals, the Board earmarked 0.7 cents of the real property tax rate for water resource programs beginning in FY15. The Board then expressed an interest in considering a permanent, dedicated funding source.

Virginia provides enabling authority that allows localities to establish entities that generate a dedicated funding stream for a particular service. The Committee considered the enabling authority for two dedicated funding mechanisms: 1) stormwater utilities which are enabled under Virginia Code §15.2-2114 and 2) service districts which are enabled under Virginia Code §15.2-2400, et seq.

Based on information currently being tallied by the Virginia Municipal Stormwater Association (VAMSA), 23 Virginia localities – three counties and 20 cities and towns – have utilized this enabling authority to establish a permanent, dedicated funding mechanism separate from their General Fund.

Advisory Committee & Process Overview

On January 8, 2014 the Board directed staff to develop a process to inform the public and seek input on preferences for alternative funding sources to support the County's water resource protection programs. On February 5, the Board approved a community engagement process and, on April 2, approved an appointment process for a Water Resources Funding Advisory Committee (Committee).

Committee members – representing a broad cross-section of interests in the community – were appointed by the Board beginning in August. Membership is summarized as follows:

Ann Mallek	Board of Supervisors liaison
Karen Firehock	Planning Commission liaison
Kimberly Swanson	community advisory council
Leslie Middleton	homeowners associations
Rob Neil	large property owner
Charlie Armstrong	large property owner
Joseph Jones	agriculture
Paul Haney	forestry
Allison Sappington	soil and water conservation district
Charles Ward	faith community / tax exempt organizations
George Goodwin	Town of Scottsville
Robbi Savage	environmental protection organizations
Jeff Sitler	general public

The Committee charge includes the following major directives (the full charge statement is included as [Attachment B](#)):

1. provide direction on public/stakeholder engagement
2. balance concerns of stakeholders; build public consensus
3. review alternative funding mechanisms
4. make recommendations to Board on preferred options

The Committee met monthly between September 2014 and August 2015 and was supported by various County staff and the consulting firm Amec Foster Wheeler (AFW).

During early meetings, County staff and AFW provided information to the Committee members on the topics of County goals, the conditions of local waters, current County responsibilities and programs, and program gaps. The Committee also received information on the integrity of the County's geographic information and financial systems, the types of suitable funding mechanisms, and the characteristics and implications of each type. In later meetings, the Committee developed its goals for a funding strategy and formulated a preferred program plan – the Committee's notion of the breadth and extent of programs necessary to meet regulatory requirements and fulfil other County needs and responsibilities.



Figure 1: Committee meeting.

The Committee's preferred program plan was used to develop a 10-year expense projection and preliminary billing rates so that the Committee could then understand the effects of different funding strategies on rates for properties and property categories (for example, single family residences). The Committee also considered a variety of policy and program issues – such as geographic rate differences and a credit program.

The Committee, with the assistance of staff, engaged in an extensive process to educate the general community about the consideration of a funding mechanism and to receive public feedback. Community outreach and feedback is summarized later in this document.

The following table is a summary of general committee meeting topics covered over the course of the year:

September 2014	introductions; orientation
October	County water quality and stormwater programs; stream health
November	priorities and expectations; existing program and gaps; program level of service
December	review of information; discussion and feedback
[Board work session]	present preferred program plan for Board validation
January 2015	review of Board work session; overview of funding mechanisms
February	evaluation of GIS data; project rates; public engagement
March	public engagement; revenue demands; program drivers; geographic differences
April	public engagement; rate/revenue generation scenarios; scenario discussion
May	comparing utility structures; credits; public engagement
June	commencement of community outreach effort
July	summary of public engagement process and feedback; finalization of preferences
August - September	finalize recommendations and report
[Board meeting]	present recommendations for Board consideration

Committee meeting dates, agendas, presentation slides, notes, and other supporting materials are chronicled at the County's funding website: www.albemarle.org/waterfunding.

Committee Deliberations and Findings

Priorities for the Program and Process

At the November 13, 2014 meeting, Committee members discussed their priorities and expectations related to local water resources issues, community considerations, and the decision-making process. The Committee's comments are reviewed below; a more complete summary of the Committee's priorities and expectations is included as [Attachment C](#).

- **process** – the Committee was determined to have informative and productive meetings with balanced member participation, records of meeting ideas and discussion points, and abundant opportunities for public/stakeholder feedback
- **stormwater-related problems, needs, issues** – the Committee concluded that both environmental protection and infrastructure investments were important but that the program priority should be to focus on meeting mandates; any funding mechanism should incentivize sensible development, address needs in both the urban and rural areas, and include a strong public education element
- **community considerations** – the Committee concluded that a funding mechanism should give rise to a holistic, thoughtful, and measured program – strengthened by regional collaboration – to ensure responsible long-term management of environmental and structural assets while recognizing economic and public health implications; it is very important that any rate structure be as equitable as possible – that there is a strong correlation between the rate paid and contribution to the problem or the need for provided services

Defining the Water Resources Program Plan

The exercise of defining a program plan – while not part of the Committee's official charge – was necessary in order to estimate the total cost to implement the program, conduct rate structure analyses, build cash flow models, and understand the cost implications of different mechanisms and rate structures on different properties. Defining a program plan also served to provide an understanding of the types of services that would be delivered and the types of customers receiving those services.

Program Plan

The program plan can be defined as the breadth of water resource protection programs – both operational and capital – implemented by the County.

The Committee learned about the County's existing programs, understood that some program expansion would be required to meet recent mandates, and determined that additional investments in infrastructure were necessary to meet obligations and realize County goals.

Current Water Resources Programs

The County's current level of program implementation does not appreciably exceed federal and state requirements for localities. In addition to mandated programs, the County voluntarily implements the *stream buffer protection* and *groundwater management* programs, though not as fully as it once did. In addition, the County currently expends modest resources to maintain stormwater infrastructure.

Currently implemented programs – and the State programs under which they are mandated – are summarized below.

Current Programs		State Mandate
mandated	construction site erosion and pollution control long-term stormwater management on developed properties	VSMP
	public education and involvement illicit discharge detection and elimination pollution prevention and good housekeeping at County properties public stormwater facility maintenance <i>drainage infrastructure mapping</i>	MS4
	TMDL planning <i>TMDL capital program</i>	TMDL
	dam operation and maintenance floodplain management	DS/FM
voluntary	<i>stream buffer protection</i> <i>groundwater management</i>	
infrastructure investments	emergency infrastructure repair	

(italicized = programs not fully implemented at the present)

VSMP – Virginia Stormwater Management Program

TMDL – Total Maximum Daily Load

MS4 – Municipal Separate Storm Sewer System

DS/FM – Dam Safety and Floodplain Management

Each of these program elements is explained in Attachment D. The categories of programs – mandated, voluntary, and infrastructure investments – are described below.

Mandated Water Protection – Compliance with Increasing Regulation

State and Federal rules requiring the local implementation of programs have escalated over the years. As such, many programs that may have once been implemented voluntarily by the County have become mandated. As an example, the County adopted its first erosion and sediment control ordinance in 1975 over concerns about sediment deposition in the newly-constructed South Fork Rivanna Reservoir. Now the County locally implements State erosion and sediment control regulations under the Virginia Stormwater Management Program.

The County's mandated programs are driven by four Virginia regulatory programs through the issuance of permits to the County. These State programs – except for Dam Safety and Floodplain Management – are, in turn, driven by the federal programs administered by the Environmental Protection Agency (EPA) under the authority of the Clean Water Act.

Virginia Stormwater Management Program (VSMP)

Beginning July 1, 2014, the County began administering a revised and expanded program to regulate land disturbing activities and land development. The program involves reviewing and approving the erosion and sediment control and stormwater management elements of these activities and ensuring –

through inspections – that construction activities and constructed infrastructure comply with design and construction standards. This program expansion required hiring four additional, permanent staff in 2014.

Municipal Separate Storm Sewer System (MS4)

In addition to regulating development, the County must administer a number of additional programs to reduce the amount of pollutants discharged directly into State waters or through storm sewer systems. These programs include public education and involvement, eliminating illicit connections and discharges, and properly managing potential pollution sources on County-owned properties or related to County operations. The County's current 5-year MS4 permit, issued in 2013, included a number of more stringent implementation and reporting requirements.

A *storm* sewer system – not to be confused with a *sanitary* sewer system – is a system of pipe, culverts, manholes, and channels which conveys stormwater runoff. Whereas some older communities have *combined* systems, carrying both sanitary waste and stormwater in the same system, a *separate* system conveys only stormwater.

Total Maximum Daily Load (TMDL)

Total Maximum Daily Load strictly means the maximum pollution amount a waterbody can assimilate over a given time period while still remaining healthy. For instance, the TMDL for Meadow Creek is 1,346 tons per year for sediment, the pollutant causing the creek's impairment. The term TMDL is more often used to describe the entire analysis and planning process for assessing and restoring a waterbody. The process includes identifying impaired waters, determining the pollution limits for these waters, and developing an implementation plan to reduce pollution loads to the determined limits. Therefore, the term Chesapeake Bay TMDL is typically meant to refer to the restoration process and not merely the determined pollutant load limits.

DEQ is required to prepare plans to restore all impaired Virginia waters. These TMDL implementation plans typically include an assignment of pollution reductions to the sources of the pollutants, including MS4 permittees, or operators.

As an MS4 operator, the County must develop and implement *local* action plans to achieve the pollutant reductions which have been assigned to the urbanized

portion of the County as part of the cleanup plans of impaired waters. TMDLs for which the County is currently responsible include the Chesapeake Bay TMDL and two separate TMDLs for the Rivanna River and its tributaries. The design and construction of capital projects, including the restoration of stream channels, is an integral and costly part of the County's strategies to meeting these TMDL obligations.

Chesapeake Bay TMDL

Participation in the multi-state effort to clean up the Chesapeake Bay is likely the County's most costly new mandate.

The County is regulated under reoccurring 5-year permits by the Virginia Department of Environmental Quality (DEQ) as an *operator* of an MS4. As such, the County must develop and implement a long-term plan to reduce discharges of phosphorus, nitrogen, and sediment into local streams and other waters. Pollutant reduction requirements began slowly in 2013 but then rapidly increase over the course of three 5-year permit cycles. The County has already achieved pollutant reductions through various means, including stream restorations and other capital projects. Although current pollutant accounting indicates that the County has satisfied early goals, it would not be prudent to wait to begin work toward the remaining, long-term pollution reduction requirements.

The County's draft Chesapeake Bay TMDL Action Plan can be found [online](#).

Dam Safety and Floodplain Management (DS/FM)

The County operates six State-regulated impoundments and is in the process of responding to more stringent standards adopted in 2008. These new mandates require the completion of various technical analyses that have, so far, resulted in the identification of a significant spillway deficiency at one dam which must be addressed through a major capital project. The County is also responsible for ensuring that land development and other activities do not result in increased flood hazards.

The overall intent of the first three programs above is to reduce the amount of pollutants – including sediment and nutrients – discharging into streams and other local waters. These new, unfunded mandates have demanded, and will continue to demand, additional County staff and increased capital expenditures.

Voluntary Programs

In 1991, the County voluntarily adopted – under the authority of the Chesapeake Bay Preservation Act – an ordinance establishing riparian buffers along many County streams, lakes, and associated wetlands. Healthy vegetated buffers are recognized for slowing runoff, preventing erosion, and filtering pollutants from runoff. Buffer areas also moderate stream temperature and provide high quality habitat for aquatic and terrestrial life. The extent of the ordinance was expanded in 2008 such that the buffer protection rules now apply to most streams throughout the County. The stream buffer ordinance was supported by a County staff position until the position was terminated during the recession in the late 2000s. This position was recently reinstated through Board action but has not been filled at the time of this writing and, therefore, full implementation of this program – and the cost of the staff position – is not included as part of the current program.

In an effort to better understand and protect the County's groundwater resources, the County adopted various rules in 2005 requiring the submission of information related to wells and groundwater assessments prior to the issuance of building permits. These requirements and processes were supported by a dedicated County staff position but this position was also terminated during the recession and the responsibilities have since been absorbed by others.

Proactive Management of Infrastructure

The County has a responsibility to operate, maintain, repair, and restore a variety of “grey” – or structural – infrastructure related to water resources, including:

- conveyances – pipes, manholes, outfalls, channels, and related infrastructure
- structural BMPs* – stormwater management facilities such as detention basins, biofilters, wet ponds, and wetland systems
- impoundments* – earthen impoundments (dams) and spillways, which may be earthen or concrete

*BMP = (Stormwater) Best
Management Practice*

*Note: The responsibility to maintain these categories of infrastructure is actually required under the MS4 and dam safety programs, respectively.

This public infrastructure requires regular maintenance – such as vegetation management and control and the removal of accumulated, litter, and debris – and periodic repairs to address failures or deficiencies. Historically, the County has focused on the maintenance of infrastructure located on County properties – including office buildings, schools, and parks – and regional-type stormwater facilities that had been formally dedicated to the County. In addition, the County – in response to requests – has repaired failed infrastructure on private property if it is located within a public easement. Currently, infrastructure failures often entail an underground break in the joint between two pipes or a pipe and manhole causing a sinkhole at the surface. But the County is beginning to experience more significant issues as infrastructure – particularly metal pipes – approaches the end of its expected life.

As the County’s inventory of grey infrastructure ages and grows, so too will the resources necessary to ensure proper long-term operation.

Existing Program Costs

The implementation of water resource protection programs includes both operation costs (primarily staff salaries) and capital costs – the cost to design and construct capital improvements.

The equivalent of approximately 18.8 full-time staff are currently engaged in implementing the County’s water resource protection programs. This includes staff of the Thomas Jefferson Soil and Water Conservation District working under standing contracts. For many staff, only a portion of their time is devoted to performing tasks related to water resource protection. These portions were estimated and summed to approximate the total County staff resources devoted to water resources, as summarized in the following table:

Department	Positions	Full-time Equivalent
General Services	program managers	1.2
	engineers	1
	inspectors	2
	office specialists	0.5
	grounds maintenance	0.8
Community Development	program managers	0.6
	engineers/technicians	2.4
	inspectors	4.5
	planners	0.3
	office specialists	0.5
Other Departments (Parks, Facilities Development, Public Schools)	project managers	0.4
	program managers	0.1
	grounds maintenance	2
	emergency response	0.3
TJSWCD (through agreements and contracts)	office specialists	1
	planners	0.8
	educators/inspectors	0.4
TOTAL		18.8

The total cost to support these positions, including salaries and benefits, is approximately \$1.5M per year.

While annual capital expenditures vary significantly, current capital costs are estimated to be \$300,000 per year, on average. Recent capital expenditures include the design and construction of a channel restoration project and the alteration of an existing regional stormwater management facility to provide better pollutant removal. Both of these projects will contribute towards the County's obligations under the Chesapeake Bay and local TMDLs.

The total current program cost is approximately \$1.8M per year. This cost is supported by four funding sources:

- General Fund – the traditional source of primary funding
- earmark – the County's FY16 budget earmarks to the program 0.7 cents of the \$0.819 per \$100 tax rate on assessed value of real property; this equates to approximately \$1.1M in FY16
- permit fees – approximately \$250,000/year is collected by the Department of Community Development through fees for various permits to offset the cost of administering the Virginia Stormwater Management Program
- grants – the County pursues every meaningful opportunity to receive grants, primarily through state and federal programs; the Department of General Services has been awarded approximately \$825,000 since 2007, primarily to support the design and construction of capital projects

Program Gaps and Needs

Through interviews with various County staff in October 2014, AFW performed an assessment of current programs relative to the County's regulatory requirements and infrastructure management responsibilities. AFW's findings are summarized below:

- erosion and sediment control program
 - more formally develop an escalating enforcement policy
 - track costs and incorporate these costs into the VSMP fee schedule
- VSMP education – consider additional staff time for a stronger engagement process
- private BMP inspections
 - should be able to meet new State inspection requirements using the inspector hired January 2015
 - due to an increasing number of stormwater BMPs, plan on an additional inspector within approximately five years
 - enhance enforcement processes through additional technical assistance to property owners or more resources for the County Attorney's Office
- Chesapeake Bay TMDL – account for 15-year planning horizon to avoid a payment bubble
- local TMDLs – develop local TMDL implementation plans and budget for these TMDL costs
- dam safety – budget for the cost of recent regulatory changes
- stream buffers – consider hiring additional staff to enforce requirements (funding for this position was made available beginning July 2015)

- stormwater drainage system
 - consider adopting a more proactive program of assessment, maintenance, and repair
 - determine policies regarding the system outside of public easements yet conveying runoff from public rights-of-way and properties
- protection of streams and stream valleys
 - consider watershed studies to identify and prioritize restoration and other opportunities

Overall, AFW found that the County's implementation of mandated programs was satisfactory but could be improved through better expense planning, more comprehensive policies and procedures, stronger customer engagement and education, and more extensive data tracking. Some of these improvements would require additional staffing. AFW also recommended more proactively maintaining the County's infrastructure.

Assessment of County GIS and Financial Systems

AFW also evaluated the County's existing geographic information system (GIS) and financial systems and determined that these systems are generally robust enough to support any type of funding mechanism being considered. The County already maintains and regularly updates the various applicable planimetric data, including the boundaries of buildings, parking lots, driveways, roadways, and parcels. This type of information could be used as the basis of a stormwater utility fee.

There are some typical issues with the County's GIS data – for instance, the under-capture of impervious areas, image shifts, and inaccuracies of parcel boundaries. The parcel boundary issue could result in potentially significant incorrect assignments of impervious areas to individual properties, particularly in instances where private roads lie along property lines on large, rural parcels.

The Committee recognizes that some cleanup and quality control work would need to be done prior to the use of GIS data for rate calculations and that a process would need to be established to regularly check and update data. The County would also need to develop a system through which property owners could appeal assessments without incurring unreasonable costs.



Figure 2: Example of the under-capture of impervious areas; tennis courts and club house not identified as impervious.

AFW has indicated that initial data QA/QC could be done County-wide by just one or two specialists in a two to three-week period.

Recommended Program Plan

In determining a recommended program plan, the Committee considered existing water resources programs, State mandates and County policy documents, the general condition of County streams, and AFW's analysis of gaps and needs. The Committee concluded that some program expansion from existing levels was necessary in order to prevent failure over time of stormwater infrastructure and to invest in the improvement of local water quality.

A preliminary program plan – including the same elements that are part of this recommended plan – was presented to the Board at a work session on January 7, 2015. A summary of Committee preferences and thoughts related to the presented program plan elements is included as [Attachment E](#).

The **recommended program plan** includes the following elements:

Recommended Program Plan Elements	
continue – continue to implement these existing programs	construction site erosion and pollution control long-term stormwater management on developed properties public education and involvement illicit discharge detection and elimination pollution prevention and good housekeeping at County facilities public stormwater facility maintenance TMDL planning dam operation and maintenance floodplain management groundwater management emergency infrastructure repair
expand – expand these existing programs	TMDL capital program drainage infrastructure mapping stream buffer protection
introduce – introduce these new programs	infrastructure assessment and regular maintenance watershed planning and restoration

bold = mandated programs

As indicated in the table, the Committee recommends the expansion of several existing programs – as required by mandates or as desired by the Board – and the introduction of two new programs.

Expanded Programs

The Committee recognizes that the County is in the process of initiating new programs – *TMDL capital program* and *drainage infrastructure mapping* – to meet the requirements of the current MS4 permit.

While County staff have recently completed the Chesapeake Bay TMDL Action Plan, the County has not yet begun to incur the full annual cost of constructing the projects and implementing the practices that will be necessary to meet the pollutant reduction requirements. It should be noted that a portion of the funds generated by the 0.7-cent special assessment is currently being set aside for the TMDL capital

program and, beginning in FY17, additional capital funds are being requested through the budget process.

County staff have just begun what is anticipated to be a two-year process to identify the full extent of drainage infrastructure for which the County is responsible to operate and maintain. Most of this infrastructure is located on private properties but within public easements and was not recorded and tracked over the years as it was constructed. Staff may determine that additional, external resources are needed to complete this task.

The costs of implementing these MS4 permit requirements – beyond present funding levels – were estimated and incorporated into the proposed program plan.

The Committee also understands that the Board has already funded a full-time staff position to administer the stream buffer protection program. While current program costs do not reflect this cost, the cost is incorporated into the proposed program plan.

Introduced Programs – Investments in Infrastructure

The Committee recommends that the County more proactively invest in its traditional structural (grey) infrastructure. Recent actual cases of infrastructure failure can be seen as an indicator that some of the infrastructure installed within the County is approaching its design life. While the County's current policy is to merely respond to those infrastructure failures outside of County properties as they occur, it would be more appropriate to properly manage this infrastructure through regular assessments, maintenance, and repairs prior to failure.



Figure 3: Sinkhole caused by failing underground infrastructure.

It should be noted that the Committee does not recommend the following as part of the program plan:

- maintenance of drainage infrastructure outside of public easements
- maintenance of privately-owned stormwater management facilities, unless they have been formally dedicated to the County or lie within public easements

In addition to grey infrastructure, the County also has a vast inventory of ecological (green) infrastructure, including:



Figure 4: Addressing stream bank erosion could lessen future mandates and improve local water quality.

- over 2,000 miles of natural stream channels in the County
- almost 2,000 lakes and reservoirs in the County
- riparian buffers – the area adjacent to streams, typically within 100 feet from the edge of stream
- wetlands, forests, natural open spaces

Green infrastructure provides many community and ecological benefits, including water supply protection, recreation, fishing, and wildlife habitat. Data and analyses from DEQ and StreamWatch suggest that most streams in the County would fail

Virginia’s biological standard and, thus, be considered impaired. Addressing existing impairments and preventing future impairments requires investments such as assessment and analysis, policy development, management practices, capital projects, and the enforcement of regulations.

For both grey and green infrastructure, the Committee recognizes that it is more cost effective to properly manage and protect in the present than to repair, replace, or restore in response to a later failure.

CONSENSUS	Adopt a program that fully meets both <u>regulatory requirements</u> and <u>long-term needs and responsibilities</u> in a cost-efficient manner.
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It should be noted that the Committee considered and explicitly rejected a “mandatory only” program. The primary reason for this is the notion that the additional proposed programs that are not mandated represent responsible, long-term management of County assets – both structural (grey) and ecological (green) – and will ultimately save the County money and help to achieve the goals set out in the County’s Comprehensive Plan.

Estimated Costs of Recommended Program

AFW and County staff estimated the costs of implementing the Committee’s recommended program plan. AFW then developed cash flow models based on the assumption that the program would not incur debt (i.e., a pay-as-you-go approach). A 10-year planning horizon was utilized in order to allow for the deferred introduction or expansion of some programs.

The elements of the recommended program – and associated costs broken out by planning year – are presented in the table on the following page:

Program Plan Cost Estimate

Total Program Over 10 Years	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
VSMP										
Construction Site Stormwater Control	\$ 388,000	\$ 397,700	\$ 407,643	\$ 417,834	\$ 428,279	\$ 438,986	\$ 449,961	\$ 461,210	\$ 472,740	\$ 484,559
Post Construction Stormwater Management	\$ 349,200	\$ 357,930	\$ 366,878	\$ 376,050	\$ 385,451	\$ 395,088	\$ 404,965	\$ 415,089	\$ 425,466	\$ 436,103
TMDL										
Planning	\$ 113,490	\$ 116,327								
Other TMDL Compliance		\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000
Bay TMDL Compliance	\$2,196,700	\$2,196,700	\$2,196,700	\$2,196,700	\$2,196,700	\$2,196,700	\$2,196,700	\$2,196,700	\$2,196,700	\$2,196,700
MS4										
Public Education	\$ 55,320	\$ 56,703	\$ 58,121	\$ 59,574	\$ 61,063	\$ 62,590	\$ 64,154	\$ 65,758	\$ 67,402	\$ 69,087
IDDE	\$ 62,280	\$ 63,837	\$ 65,433	\$ 67,069	\$ 68,745	\$ 70,464	\$ 72,226	\$ 74,031	\$ 75,882	\$ 77,779
Pollution Prevention	\$ 28,815	\$ 29,535	\$ 30,274	\$ 31,031	\$ 31,806	\$ 32,602	\$ 33,417	\$ 34,252	\$ 35,108	\$ 35,986
Other										
Program Management/Administration	\$ 172,825	\$ 177,146	\$ 181,574	\$ 186,114	\$ 190,766	\$ 195,536	\$ 200,424	\$ 205,435	\$ 210,570	\$ 215,835
Infrastructure Maintenance (Public Property)	\$ 295,560	\$ 302,949	\$ 310,523	\$ 318,286	\$ 326,243	\$ 334,399	\$ 342,759	\$ 351,328	\$ 360,111	\$ 369,114
Other Regulatory Programs	\$ 4,850	\$ 4,971	\$ 5,096	\$ 5,223	\$ 5,353	\$ 5,487	\$ 5,625	\$ 5,765	\$ 5,909	\$ 6,057
Stream Restoration (Planning)	\$ 52,380	\$ 52,380	\$ 52,380	\$ 52,380						
Dam Safety	\$ 122,540	\$ 125,604	\$ 128,744	\$ 131,962	\$ 135,261	\$ 138,643	\$ 142,109	\$ 145,662	\$ 149,303	\$ 153,036
Mapping Infrastructure	\$ 103,500									
System Assessment		\$ 225,984	\$ 225,984	\$ 225,984	\$ 225,984	\$ 225,984	\$ 225,984	\$ 225,984	\$ 225,984	\$ 225,984
Routine Infrastructure Maintenance (Public Easements)	\$ 230,000	\$ 235,750	\$ 241,644	\$ 247,685	\$ 253,877	\$ 260,224	\$ 266,729	\$ 273,398	\$ 280,233	\$ 287,238
System Rehabilitation/Replacement			\$ 100,000	\$ 150,000	\$ 200,000	\$ 250,000	\$ 300,000	\$ 350,000	\$ 400,000	\$ 450,000
Watershed Planning					\$ 200,000	\$ 250,000	\$ 300,000	\$ 400,000	\$ 500,000	\$ 880,000
Watershed Capital Projects							\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000
BMP Inspector (1 FTE)						\$ 75,000	\$ 76,875	\$ 78,797	\$ 80,767	\$ 82,786
Stream Buffer Enforcement (1/2 FTE)	\$ 37,500	\$ 38,438	\$ 39,398	\$ 40,383	\$ 41,393	\$ 42,428	\$ 43,489	\$ 44,576	\$ 45,690	\$ 46,832
Total	\$4,212,960	\$4,631,954	\$4,660,390	\$4,756,273	\$5,000,924	\$5,224,130	\$5,875,416	\$6,077,984	\$6,281,867	\$6,767,096

The estimated program costs are summarized as follows:

Description	Estimated Program Cost	Incremental Increase	Time Frame
continued programs	\$1.8M/year	-	current
+ expanded programs	\$4.2M/year	\$2.4M/year	full cost at Year 1 of planning horizon
+ introduced programs	\$6.8M/year	\$2.6M/year	full cost at Year 10 of planning horizon

As noted, Year 1 costs of the proposed program plan increase from the current program cost of \$1.8M/year to approximately \$4.2M/year due to incurring the costs of full implementation of the existing program. As an example, although under the existing program the County is fully compliant with requirements of the Chesapeake Bay TMDL, the County has been in the planning phase of this undertaking and is not yet incurring significant expenses. However, in planning Year 1 a cost of approximately \$2.2M/year in Chesapeake Bay TMDL compliance is introduced for the design and construction of capital projects.

Other program elements are introduced or expanded in subsequent planning years. For instance, watershed planning and the implementation of watershed restoration (capital) projects are initiated in planning Years 5 and 7, respectively. A simplistic representation of the estimate costs over time of the proposed program is depicted to the right.

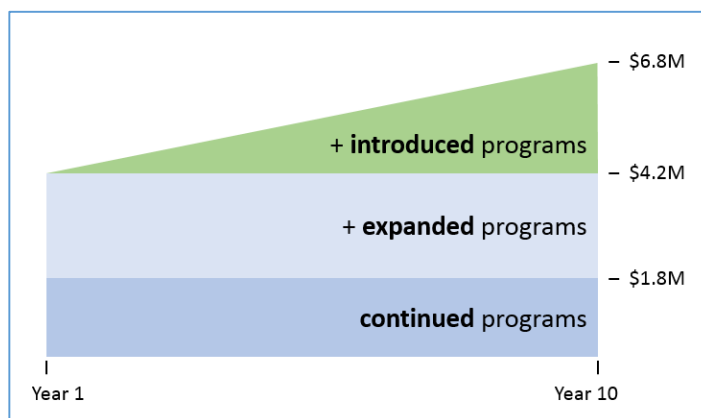


Figure 5: Depiction of estimated costs of program plan.

It should be noted that determining the costs related to the Chesapeake Bay TMDL is exceptionally challenging. Preliminary findings from the internal Chesapeake Bay TMDL planning process indicate that the County has already made significant progress towards long-term pollution reduction requirements. However, addressing the remaining requirements will nonetheless require considerable resources, in both staff time and capital expenditures. In addition, there continues to be much uncertainty as to how this regional process – involving various participants at the federal, state, and local levels – will transpire over the long term. The process is supposed to be iterative in nature and targets may be adjusted as initial local action plans are submitted to the states, the Chesapeake Bay Model is recalibrated in 2017, and new MS4 permits are issued in 2018 and 2023. The County also anticipates that new TMDLs for local streams will be established over time. The TMDL-related costs represented in the program plan should be understood as reflecting conservative predictions of unpredictable future events.

Alternative Funding Mechanisms

Perhaps the most significant decision of the Committee was whether to recommend an alternative funding mechanism or to continue funding water resource programs through the General Fund. This decision has been and continues to be considered by a large number of Virginia localities.

According to information recently collected by the Virginia Municipal Stormwater Association (VAMSA), four counties and 21 cities and towns have adopted a dedicated funding source separate from their General Fund. Of the counties, two (Prince William and Isle of Wright) have enacted stormwater utilities and two (Fairfax and Arlington) have adopted service districts. Approximately eight localities have adopted a dedicated funding mechanism in the last two years or are currently in the process.

Localities typically consider alternative, dedicated sources of funds for the following reasons:

- stability of funding – a separate funding mechanism would buffer water resources programs from the uncertainty of political whims, competing capital needs, and economic conditions; during the recent recession, several water and natural resource-related staff positions were eliminated and capital funding was suspended
- equity – the value of real property isn't necessarily related to a property's contribution of stormwater volume or pollution
- funding base – tax-exempt properties contribute to the stormwater and pollution burden
- regulator preference – having a dedicated funding source is preferred by federal and state regulators and would create advantages for the County when being audited or applying for grants
- political feasibility – localities may consider a special assessment to be more politically feasible than raising real property taxes

Revenues generated by a dedicated funding mechanism – by definition and law – cannot be moved to meet the needs of other County programs. The overall program and budget of any separate funding mechanism would be subject to the same – or higher – level of scrutiny by County budget and finance staff and the Board.

A funding mechanism serves to distribute the total cost of the program to individuals. In most cases, the costs are borne by property owners but costs may also be passed down by some property owners to renters, customers, and organization members. In contrast to covering program costs directly from the General Fund, a dedicated funding mechanism might better achieve the goals and objectives – such as equitability – set forth by the Committee.

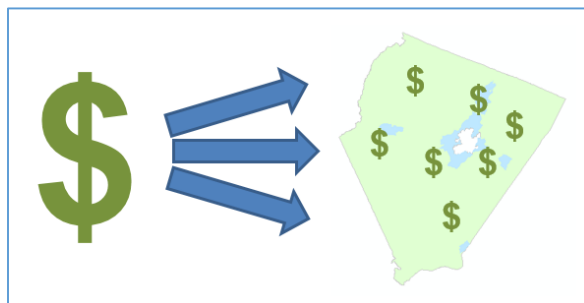


Figure 6: Funding strategies dictate how total costs are distributed.

The Committee considered two alternative funding mechanism types:

Service District	A <i>tax</i> based on the full assessed property value. For lands subject to land use valuation and assessment, the tax is based on the land use value unless the owner consents in writing to be taxed on the full assessed value. Historically used by water/sewer services, service districts must be area-specific to pay for additional services. Therefore, a service district cannot be applied County-wide. Different rates can be applied to different classes of properties or sub-regions. Arlington County was the first locality to adopt a service district in 2005.
Stormwater Utility	A <i>fee</i> applied to all properties (including tax-exempt). Fees must be rationally related to services rendered and are typically based on impervious area. First established in Virginia in the early 1990s by Hampton Roads and Prince William County. Utilities are the preferred mechanism of Virginia cities.

The alternative funding mechanisms are compared and contrasted with the General Fund here:

	General Fund	Service District	Stormwater Utility
description			
basis of rate	real property value (<i>land use value</i>), other local taxes, state revenue, and other taxes	real property value (<i>land use value</i>)	physical metric, such as impervious area
localities using this system	-	3 total: Arlington County, Fairfax County, City of Alexandria	20 total: including Charlottesville, Staunton, Lynchburg, Richmond, and Prince William Co.
comparison			
correlation between rate and need for services	weak	weak	strong
costs of administration and implementation	lower	lower	higher
can different rates be applied to different parts of the County?	no	yes	yes
can credits (lowering of rate) be offered?	no	no (not allowable)	yes (required)
can incentives (i.e., cost sharing) be offered?	yes	yes	yes
are funds subject to the local government and public schools funding formula?	yes	no	no
complexity of public explanation	lower	lower	higher
do land use properties pay the full rate?	no	no	yes
do tax-exempt owners pay?	no	no	yes
are rates applicable to properties owned by other governments (federal lands)	no	no	no
applicable to public roads?	no	no	no

Rate Structure and Rate Recommendations

Funding Mechanism Type

The Committee – by a narrow majority - recommends a stormwater utility as the most appropriate funding mechanism for Albemarle County. The primary reasons for the Committee’s preference is:

1. utility rates more directly reflect the actual contributions of individual properties to impacts on water resources; the rates for the *general fund* and *service district* approaches are based on property value and there is a very weak link between property value and pollutant contributions
2. a utility provides a credit – or rate reduction – to individuals taking measures on their own properties to reduce stormwater runoff and pollutant discharges; credits cannot legally be offered under the other approaches
3. basing the fee on impervious area may encourage denser or vertical development

NARROW MAJORITY	Adopt a stormwater utility having a fee structure that relates the fee to a property’s contribution to stormwater runoff and pollution discharges.
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The Committee recognizes that a stormwater utility requires more effort to establish and maintain. Whereas a service district tax would closely mirror the County’s existing tax billing systems, a utility would require a separate account file based on impervious area and any other selected variables. As discussed earlier in the report, the GIS data would need to be checked for quality control prior to initial rate determination. Additional staffing would be required to maintain data quality and address owner appeals. However, the resources necessary for these activities are expected to be negligible compared to the size of the overall program. On the whole, the Committee believes that the extra effort is warranted in light of the advantages of a utility.

A considerable amount of Committee discussion focused on a utility shifting costs, as compared to other options, towards tax-exempt property owners. While some tax-exempt organizations may be financially-disadvantaged – such as houses of worship having low membership – the Committee recognized that the other funding options would shift the cost burden towards tax-paying property owners, including those who might be equally financially-disadvantaged. In the end, the Committee felt that it is more equitable for everyone to pay a rate based on property characteristics.

Some Committee members feel that the stormwater utility approach could place a disproportionate burden on large property owners having significant amounts of impervious area – primarily due to long driveways and private roads. This issue has been recognized and discussed at length by the Committee and the majority of members feel that equity issues such as this should be worked out when developing a specific rate formula; the Committee recommends that a credit or rate adjustment be used to address this sort of situation (discussed later in this report).

It should be noted some rural property owners – owners of farms, vineyards, and other agricultural operations – have stated a preference to continue funding water resources programs through the General Fund. In fact, the Albemarle County Farm Bureau, at its August 11 annual dinner, adopted a resolution (nearly unanimously approved by verbal vote) proclaiming this preference.

Some community members have expressed a belief that any funding strategy separate from the General Fund would not be subject to the same level of transparency. In addition, some believe that a separate fund not having to compete for resources against other County needs through the General Fund appropriation process would lead to needless growth and excess. The Committee has concluded that any separate program would not be shielded from Board scrutiny or public review and could only do as authorized by the Board.

Combining Funding Approaches

The Committee briefly considered the concept of a hybrid approach – essentially utilizing a combination of funding types. One alternative proposed was to implement a service district applicable to as much of the County as legally permissible and an additional stormwater utility only in urban areas. The thought was that the higher rates in the urban area are justified due to some programs having an urban focus, such as TMDL requirements. However, many weaknesses to the hybrid approach were identified, including:

1. tax-exempt properties outside the urban areas would not contribute
2. credits could not be offered outside the urban areas
3. two separate billing systems would need to be administered

Overall, the Committee believes that there is no compelling advantage presented by what would be a system requiring more effort to implement.

MAJORITY	Utilize a single funding strategy – as opposed to a hybrid, or combination, approach – to provide for program fairness and ease of implementation.
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Geographic Differentiation

The Committee considered whether different rates should be applied to urban and rural areas. This question was raised due to some programs and services being driven by State mandates that pertain to the County’s more urbanized areas. The Committee discussions on this topic included the following points:

- there are properties outside the urban areas – as delineated by the Comprehensive Plan – that have the same densities and needs for services as properties inside the urban area (see adjacent image); as the County continues to grow, this situation will likely become more common



Figure 7: An example of urban and rural parcels having the same land use.

- while some program elements have either an urban or rural focus, overall there is no meaningful urban/rural difference in anticipated service delivery
- all property owners and residents derive a benefit from the programs regardless of the property location

MAJORITY	Establish a County-wide rate structure with no differentiation between urban and rural areas.
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It should be noted that while there was little disagreement on this topic by Committee members, some rural property owners don't believe they are directly served by the water resources program – that the program is applicable only to urban needs and issues.

Basis of Utility Fee

By law, a stormwater utility fee must be rationally related to services rendered or the amount of stormwater runoff or pollutants generated by a property. A stormwater utility fee can be based on any physical metric which provides this nexus. The more traditional metric is impervious areas – roads, parking lots, driveways, and rooftops – since they generate relatively more runoff per unit area and are more easily and readily tracked. However, the fee can be based on additional metrics – such as land cover categories or proximity to water features – in an attempt to even more precisely account for a property's pollutant contributions.

Moreover, impervious areas can be accounted for in different ways. For example, impervious area accounting can be simplified by assigning the same flat rate to all single family residences regardless of size. This approach uses the concept of an Equivalent Residential Unit (ERU) to represent the average amount of impervious area of single family residences – approximately 2,500 square feet (sf) for Albemarle County. In another approach, single family residences can be categorized into tiers (i.e., small, medium, and large) to account for the wide size variations of homes and driveways. This tiered approach provides a stronger basic link between runoff and the fee but serves to simplify the

ERU = Equivalent Residential Unit
SFR = Single Family Residence

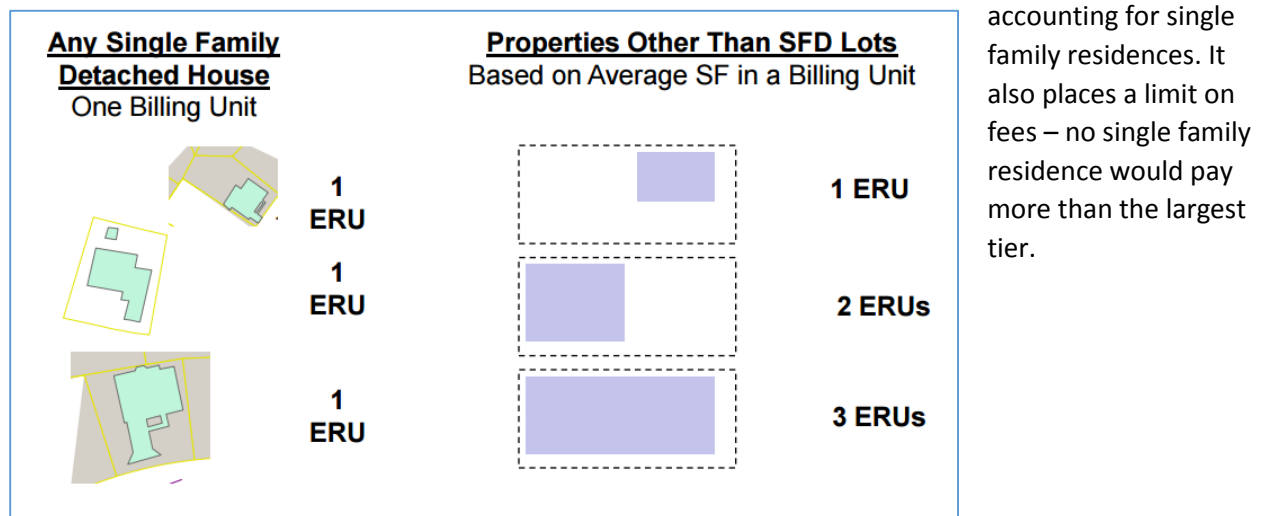


Figure 8: Example of ERU approach.

The Committee considered the following types of stormwater utility billing:

impervious area	ERU	tiered residential
definition		
– the fee is based strictly on the amount of impervious area, typically in dollars per billing unit [example: \$10 per 500 square feet (sf) per year]	– every SFR property is assessed the same flat rate	– SFR properties are categorized into size (area) tiers; each tier is billed at a different rate
features		
- enhances equity - requires initial and continued investment in mapping - shifts program cost burden to rural SFR	- does not require tracking of impervious area for SFR – thus, less administrative cost - reduced equity among SFR - generally shifts the program cost burden to SFR	- more equitable than ERU but less equitable than impervious only - effectively caps the charge for the SFR (affects largest properties) - still requires residential mapping
example billing structures		
billing unit = 500 sf	ERU = 2,500 sf	tier 1: up to 1000 sf tier 2: 1000 to 3000 sf tier 3: over 3000 sf
Example Property 1: a 2,000 sf home and 8,000 sf driveway on a 10-acre forested lot		
billed at 20 billing units	billed at 1 ERU	billed at tier 3 rate
Example Property 2: a 2,000 sf home and 8,000 sf driveway on 0.5-acre lot		
billed at 20 billing units	billed at 1 ERU	billed at tier 3 rate
Example Property 3: a shopping center on a 1-acre property; total imperviousness is 80%		
billed at ~70 billing units	billed at ~14 ERUs	billed at ~70 billing units

Notes: Both dirt and gravel driveways are considered impervious due to these areas being very compacted
sf = square feet

The type of funding mechanism and each variation of the rate structure affects how total program costs are ultimately distributed. As an obvious example, whereas tax-exempt property owners would be charged a stormwater utility fee they would not be subject to a service district tax – but all other property owners would pay a larger share. As another example, single family residences would generally pay a larger portion of the total program cost if the basis of a utility was a 500-square foot billing unit (*impervious area* approach) and a smaller portion under the *ERU* approach. While generalizations such as this have been observed, the precise impacts to individual property categories in Albemarle County cannot be predicted at this time.

The Committee feels that the most important consideration of a utility rate structure is to correlate the rate – as closely as possible – to the property’s contribution to water resource impacts or to the need for

the services provided. By lumping single family residences into categories, the *ERU* and *tiered residential* approaches stray from this equitability principle. For instance, the Committee was not amenable to the idea that – under the ERA approach – a 20,000 square foot home on 500 acres and 1,000 square foot home on a ¼-acre lot would pay the same rate.

Because of this, the Committee was nearly unanimous in preferring that the base rate be based on the amount of impervious area in billing increments small enough to account for meaningful property differences but not so small that the precision of the County’s GIS data becomes an issue.

CONSENSUS	Adopt a billing unit of 500 square feet of impervious surface area.
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The Committee also recognizes that properties in Albemarle County vary widely across the County – unlike many cities, such as Charlottesville, that are entirely urbanized. As an example, many rural properties require long driveways or shared private roadways to access homes and businesses from public roadways and these travel ways – whether pavement or gravel – are typically considered impervious for the purpose of utility billing. As such, large rural properties – even those with small homes – could be subject to utility fees 10 or 20 times those of homes on small lots if fees are based strictly on impervious area. This is the case despite the fact that the remaining areas of large properties – typically, forests and fields – may act to mitigate the effect of the impervious areas. The Committee recommends accounting for the diversity of County properties by applying a density factor or some other adjustment to the base rate.

However, a density adjustment alone could also result in inequitable assessments. For instance, assume owner X has a small lot, maintains significant tree canopy, and allows the growth of native groundcover over most of the lot. Owner Y has a large, rural lot primarily maintained as a lawn (fertilized and kept short) and having few trees. Under this idealized scenario, owner Y would be rewarded for having low impervious density despite likely contributing much more runoff and pollution than the owner X.

As such, the Committee generally agreed that a utility rate should be based on a range of land cover classifications in addition to impervious areas. For instance, different unit area rates could be applied to impervious area, lawns, fields, agricultural areas, timber harvests, and even forests. The argument for this level of complexity is that all land cover conditions contribute pollutants to natural waters to some degree. The Committee believes this concept is worth exploring but recognizes that the County may not already have the geographic data necessary to support this model and additional resources would be required to collect and maintain this data. Regardless, it is not necessary to resolve the specifics of this facet at this time.

In addition to adjusting the base utility rate to account for property diversity, the Committee also recommends establishing generous policies to incentivize and credit practices by property owners to manage onsite stormwater and minimize water resource impacts. A credit is a fee reduction to reward owners for implementing onsite stormwater management or other practices that reduce stormwater impacts. While a stormwater utility must by law include a credit system, the scope of the credit system is not predetermined. The Committee believes that a credit system must be robust enough to actually

incentivize property owners to implement onsite practices or sufficiently reward behavior that contributes towards pollution reduction.

CONSENSUS	Ensure that the fee – to the extent possible – reflects a property’s contribution to water pollution by effectively lowering the rate per billing unit through a <u>credit or rate adjustment</u> for properties: • having a low density of imperviousness (through rate adjustment only) • maintaining beneficial land cover conditions • providing onsite stormwater runoff management or pollutant controls
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With utility rates anticipated to be relatively low, even a significant credit system by itself may not result in meaningful private investments due to lengthy payback periods. Therefore, the Committee recommends also encouraging initial investments through additional incentives – such as a cost-share program.

CONSENSUS	Include within the fee structure strong financial incentives for private investments that reduce stormwater impacts.
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Finally, because of the potential complexities of a credit and incentive system and the need for property owners to apply in order to receive some benefits, the Committee recommends that a stormwater utility include a strong public education and assistance component.

CONSENSUS	Allocate funding for <u>technical assistance</u> to help landowners determine how to implement practices to reduce their fee amount and improve water quality.
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Public Engagement Process

The Committee undertook an extensive community engagement process as part of its work. The goal of the engagement plan was to reach as many residents as possible by providing many, varied opportunities across a broad range of platforms. This included a YouTube video that provided an introduction to the issue (244 views), a County A-Mail message that provided a process update and solicited input (759 opens), two public feedback surveys (over 300 respondents in total), a web site (www.albemarle.org/waterfunding), posters used in community meetings and displayed for one week in the lobby of the Northside Library, a free-response question on Engage Albemarle, and ten presentations and community meetings across the County from April to August. This is in addition to the Committee’s 11 regularly-scheduled meetings, which were open to the public and advertised online through the Committee’s webpage and the Albemarle.org Calendar.

Community Events

Presentations were scheduled in a variety of locations and settings in order to maximize appeal and convenience for the community. In addition, Committee members and staff were invited to attend and speak at community meetings. All events are summarized in the table below:

Date	Event	Target Audience	Attendees	Advertising
April 29	Neighborhood Leadership Summit	Neighborhood Association leaders	60	Homeowner Association (HOA) email list, Community Advisory Committee (CAC) email lists
June 3	EARL presentation	Earlysville residents	3	Earlysville Area Residents' League (EARL)
June 17	North Charlottesville Business Council Board meeting	Business owners	13	Closed meeting
June 17	Crozet Community Advisory Committee meeting	Crozet-area community	20	CCAC email, Crozet Community Association
June 24	Water Resources Open House at Lane Auditorium	Countywide	40	A-Mail, Facebook, Twitter, Email to HOAs, announce at CACs, media, Chamber of Commerce
July 21	Community Meeting on Water Resources at Northside Library	Countywide	36	A-Mail (General County, Places29, Natural Resources)
July 27	Pantops Community Advisory Committee	Pantops-area community	10	Pantops CAC, Pantops-area HOAs
July 27	Village of Rivanna Community Advisory Committee	Rivanna-area community	8	Rivanna CAC, Rivanna-area HOAs
August 4	White Hall Ruritans	White Hall residents	40	Ruritan mailing list
August 10	Religious Organizations	Faith Community / Tax-Exempt Organizations	15	Direct email/phone
August 11	Farm Bureau Annual Dinner	Agriculture	100	Farm Bureau membership

Six of the ten events were in broader community meetings that covered a range of topics while four were single-issue meetings that focused specifically on the water resources program. Presentations were also planned to ensure a broad range of stakeholders were engaged – four of the meetings focused on specific landowner types (business, residential/homeowners associations, tax-exempt organizations, and rural), four of the meetings focused on specific areas of the County (Crozet, Earlysville, Pantops, Village of Rivanna), and two of the meetings were general. The Committee members took an active role in each of these events, including by serving on a panel at the Open House, planning focused stakeholder meetings, providing Committee representation to augment staff in meetings, and, in one case, facilitating the overall agenda and discussion. In all, meetings were attended by nearly 250 people.

Digital Resources

Online resources including the [video](#), surveys, A-Mail, Engage Albemarle, and the [webpage](#) provided the community with on-demand information and feedback mechanisms on the water resources program. In all, online resources reached at least 1,300 people.

Media

The work of the Committee was well-covered by traditional media outlets, including television news, radio, print news, and online news. Media coverage is summarized in the following table.

Outlet	Media	Type	Date(s)	URL
Charlottesville Tomorrow	online news	promotion	6/4/2015	link
Daily Progress	newspaper	promotion	6/7/2015	link
NBC29	television		6/11/2015	link
WINA	radio	promotion	6/15, 6/21, and 6/22/2015	
Z95.1	radio	promotion	6/15 and 6/22/2015	
Free Enterprise Forum	blog	promotion	6/22/2015	link
CBS19	television	promotion	6/24/2015	link
Charlottesville Tomorrow	online news	promotion	6/24/2015	link
Daily Progress	newspaper	coverage	6/28/2015	link
Charlottesville Tomorrow	online news	coverage	6/28/2015	link
Crozet Gazette	newspaper	coverage	7/3/2015	link
Charlottesville Tomorrow	online news	promotion	7/21/2015	link
CBS19	television	coverage	08/6/2015	link

Public Concerns and Feedback

The purpose of public engagement for the Water Resources Funding Advisory Committee was to both inform the community about the issues and process and to solicit feedback so that the Committee could consider the feedback during its deliberations for their recommendations. All timely comments – whether at in-person meetings, via email communications, or through digital tools – have been provided to the Committee. All public comments received through the various channels are summarized in Attachment F. In addition, Committee members have been in communication with their representative constituencies to inform their thinking.

A summary of feedback received is provided below.

Surveys

Two unscientific surveys provided structured feedback mechanisms to address specific committee deliberations. The first survey – having 231 respondents – focused more generally on the goals and direction of the water resources program, while the second survey – having 77 respondents – asked more detailed questions on the funding mechanisms under consideration. Full survey results can be found in Attachment F.

The first three questions in the Survey 1 focus on understanding public awareness of key aspects of water quality. There is strong feeling on behalf of respondents that local water quality is important, with a combined 83% of respondents selecting *very important* or *somewhat important*. When asked about changes in water quality over time, the majority of respondents do not believe water quality has degraded. However, more than 1 in 5 respondents chose *don't know*, indicating some lack of awareness. The third question asked about the impact of land-disturbing activities on water quality, to better gauge awareness of the connection between imperviousness and stream health. Among respondents, there is a relatively strong understanding of this connection, with an aggregate 69% choosing *a great deal* and *somewhat*.

The final two questions focus on specific aspects of the Committee's work. Question 4 asked respondents to prioritize key aspects of the water resources program design. While the highest priorities identified by respondents are on *new development and meeting mandates*, close behind are *maintain conveyance infrastructure*, *incentivize existing development to reduce impacts*, and *protect and clean-up all local streams, lakes, and rivers*. These three items are all part of the program and fee structure that the WRFAC is recommending – that the program include watershed planning throughout the County, that conveyance infrastructure be proactively maintained, and that property owners have access to a credit system to reduce their costs through onsite investments. Question 5 gauged willingness to pay for water resources programs, with response payment values in-line with estimated fee ranges. While no payment value received a majority response, aggregated responses indicate there is a majority willing to make additional payments for water resources programs. There is relatively strong willingness to support water resources programs at a cost of \$1 per month (37% of respondents) and fair willingness to support at a cost of \$5 per month (25% of respondents). Support drops considerably at higher monthly amounts.

Survey 2 focused on funding mechanisms. The first two questions focused on the characteristics comprising the mechanisms under consideration. In both instances, an option that reduces administrative costs was prioritized. Support was also strong for simplicity (easy to understand) and for a mechanism that includes tax-exempt landowners in the funding base and provides credits to landowners for onsite investments. The third question specifically asks which funding mechanism respondents prefer. The vast majority (83%) do not support a service district or a stormwater utility, with a preference for the General Fund (48%) or sales tax (please note this was a write-in response that Albemarle County lacks the enabling authority to implement). The final two questions sought to determine support for exceeding mandates by making infrastructure investments in the near-term so as to achieve economic or environmental benefits over the longer-term. The majority of respondents do not support exceeding mandates, although there is relatively stronger support for long-term economic benefits over environmental benefits.

Comments

The Committee felt strongly that the community be provided many opportunities and platforms for providing free comment, in addition to the surveys. Comments were received through a variety of means – including at community meetings – and focused primarily on the program and the funding mechanism.

The service district approach received less specific attention in public comment. Themes that arose were a familiarity with property value as the basis for the cost to a property owner and independence from GIS data. Notably, comments supporting a bifurcated rate for rural and urban areas did not emerge as a theme.

Another theme that emerged was to keep program funding in the General Fund, particularly among rural large property owners. Comments supporting this view mentioned a belief that keeping funding in the General Fund will ensure the water resources program remains lean and competes with other local government needs for funding each year. Also mentioned was the fact that it is the most simple for the County to administer and residents are familiar with paying their real property taxes biannually.

As previously mentioned in this report, the Albemarle County Farm Bureau, at its August 11 annual dinner, declared through a unanimously approved resolution that it supports continuing to fund water resources programs through the General Fund.

Qualifications

The community engagement process yielded important information and provided a glimpse of citizens' viewpoints. Many opinions expressed by the public mirrored the thoughts and concerns of Committee members. However, despite the relatively extensive efforts to both inform the public and receive feedback, the process was nonetheless skewed towards the opinions of individuals who were motivated to participate. As such, caution should be exercised in drawing conclusions about overall community sentiment. A full description of comments is included as [Attachment F](#).

Attachments

- A. County Guidance Documents and the State of the County's Water Resources
- B. Committee Charge Statement
- C. Committee's Priorities and Expectations
- D. Description of County Programs
- E. Program Plan Preferences Presented at January 2015 Work Session
- F. Community Outreach Summary

County Guidance Documents for Environmental Stewardship

The County's longstanding commitment to water resources protection is demonstrated by the establishment of many programs – beginning in the 1970s – prior to and beyond the requirements of federal and state mandates. Due to decades of progressive environmental initiatives, Albemarle County gained a reputation as being a local government leader in water resources protection.

The County's **Comprehensive Plan** – which was adopted by the Board on June 10, 2015 – acknowledges the importance of natural resources for the vitality of personal and economic health and expresses a continued commitment to protecting these resources. The Board's **FY15-17 Strategic Plan** – a shorter-term declaration of the Board's primary aspirations – includes the following as one of eight goals:

Natural Resources: *Thoughtfully protect and manage Albemarle County's ecosystems and natural resources in both the rural and development areas to safeguard the quality of life of current and future generations.*

- A. *By October 2015, establish direction and funding for a program to improve water quality.*
- B. *Develop and begin implementation of a comprehensive program to improve water quality.*
- C. *Establish and begin implementation of priorities for a natural resource program.*

Citizen surveys consistently indicate strong support for the County to administer programs to foster a clean, healthy natural environment. The [2015 survey](#) indicates that 92% of respondents rated the County's overall natural environment as excellent or good (above the national benchmark). In addition, 82% of the respondents rated the importance of the community to focus on the quality of the natural environment as either essential or very important – ranking third out of eight categories and outranking matters such as transportation, infrastructure, and health.

The State of the County's Water Resources

Despite the County's long-standing commitment to protecting water resources, it is likely that the majority of streams in the County would presently fail Virginia's biological standard and, thus, be considered impaired. Local impairments are caused by a variety of land uses and activities – stressors that are both within and beyond the authority of the County.

Health of Streams and Lakes

Streams and lakes are assessed by the Virginia Department of Environmental Quality (DEQ) using chemical and biological data collected by themselves and various other organizations, including the U.S. Environmental Protection Agency (EPA), the U.S. Parks Service, and citizen monitoring groups such as [StreamWatch](#). The monitoring results are compared to water quality standards required to support the designated uses assigned to each waterbody. If the observed values are poorer than the standards associated with the designated use, the waterbody is said to not support its designated use and is deemed *impaired*.

How is stream health assessed?

1. Each water body is assigned a designated use; *[aquatic life, fish consumption, recreation, public water supply, wildlife]*
2. The water quality needed to support each use is determined
3. Waters are tested for pollutants or indicators
4. If a water body contains more pollutant than is allowed, it will not support the use (impaired)
5. Impaired waters are placed on the DEQ 303(d) list and DEQ is required to develop a plan to restore water quality (TMDL process, discussed later)

On was made, 33% of stream miles were healthy and 67% were impaired. The causes of County stream impairments are summarized in the pie chart below. Note that the term benthic – which means “bottom-dwelling” – denotes that a stream is not supportive of a healthy and diverse aquatic life as indicated by

Streams		
healthy	137 miles	16% (33%)
insufficient data	457 miles	53%
impaired	274 miles	32% (67%)

assessments of macro-invertebrate organisms (aka, bug counts).

[illegible]

StreamWatch has provided an independent assessment of streams within the Rivanna River watershed. According to their 2011 analysis, 45% of the 22 monitoring stations within the County represent healthy stream reaches and 55% represent impaired reaches. But these monitoring stations are not necessarily representative of the County as a whole so they can't be directly compared to the DEQ conclusions. More applicable is their [2011 Land Use Study](#) that – using correlations between stream

Impaired Streams in Albemarle County per DEQ's 2012 Water Quality Assessment Integrated Report

health and watershed characteristics – predicts 70% of streams within the Rivanna River watershed would fail the Virginia standard if assessed.

Both the DEQ report and StreamWatch study predict that only about a third of the streams within the County are healthy by Virginia standards. StreamWatch additionally concludes that, based on over six years of collecting data at its representative monitoring sites, the overall condition of streams within the Rivanna basin has not undergone any detectable change.

Causes of Impairments

Scientific research indicates that stream health is directly correlated with land use. Highly forested areas generally produce the healthiest streams. But as land use intensifies, the health of streams and other waters generally declines. This is primarily due to

Impervious – not allowing water to readily pass through; non-porous

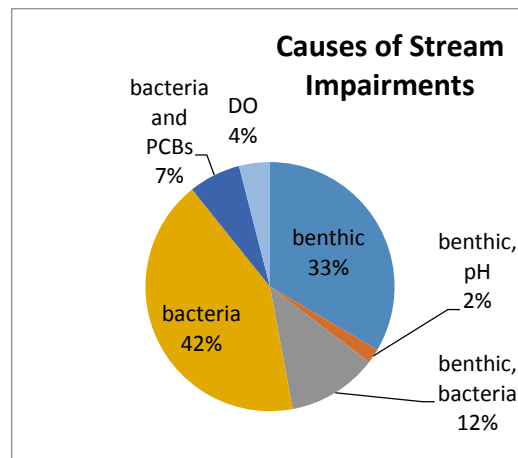
1) an increase in the intensity and volume of runoff from the watershed, leading to channel scour and subsequent sedimentation and 2) the introduction of more pollutants into the watershed and more efficient pathways for these pollutants to reach streams.

Land use changes and activities that can lead to impairments include:

- 1) land disturbance (construction sites or vegetation clearing) increase runoff and allows soil erosion
- 2) increasing imperviousness cover results in greater flow rates and volumes
- 3) direct connections from sources to streams (gutters, inlets, and storm pipes) results in quicker delivery of runoff
- 4) more intensely managed vegetation (lawns, crops) decreases infiltration into the ground and introduces pollutants
- 5) disturbing or clearing riparian areas along streams affects protective buffer
- 6) livestock in streams cause direct impacts to channel stability and introduce bacteria
- 7) various activities and land uses are sources of pollutants (nutrients, bacteria, hydrocarbons, metals)



Channel Scour in Rural Grazed Area



The County programs described in the Committee report serve to minimize or mitigate the impacts resulting from these activities. However, no best management practice (BMP) is 100% effective and it is virtually impossible to stop the cumulative effects of innumerable minor impacts. In addition, there are many activities and land areas over which the County has little or no authority. For instance, almost all agricultural activities are exempt from the County's Water Protection Ordinance (WPO). As another example, it is not uncommon for gravel driveways, especially on steep slopes, to washout during intense storms. Over time, significant quantities of gravel and soil are carried into streams and contribute to the

total sediment loading. The County cannot prohibit or manage this source of pollution.

As one would expect, streams in highly-urbanized areas are generally the most impaired. But – as indicated by the wide distribution of impaired waters throughout the County – the health of many rural streams has been negatively affected, as well. StreamWatch found that stream health declines rapidly with increased development or deforestation: even for a land use category averaging 70% forest cover and having only a single home for every 17 acres, more than half of the streams were impaired. Fortunately, these rural streams are generally on the cusp of impairment and it is more likely that these marginally impaired streams can be restored to healthy conditions as compared to more urban streams.

Because stream health is closely tied to land use and land use change is expected to continue over time, StreamWatch further predicts that future land use intensification in rural areas could lead to a reduction in the number of healthy streams within the County by about one third over the next 20 years. Therefore, without additional mitigation efforts, the percentage of healthy streams in the County may decrease.



Erosion of Gravel Driveway

County of Albemarle
Water Resources Funding Advisory Committee
Charge Statement, Membership and Organization
April 2014

Advisory Committee Charge

The Water Resources Funding Advisory Committee is an advisory committee to help the County develop a permanent funding source to comply with new requirements under the County's Municipal Separate Storm Sewer System (MS4) permit, including achieving pollutant load reductions as part of the Chesapeake Bay cleanup plan. The Committee will be charged with a) providing direction and advice on a public/stakeholder engagement process including direct interaction; b) considering and balancing the concerns/issues of the affected stakeholders and building public consensus for committee recommendations; c) reviewing alternative funding mechanisms; and d) making a recommendation to the Board of Supervisors on a final preferred funding option.

The preferred funding program should be based on the Board's direction to date regarding maintaining compliance with increased MS4 permit requirements.

The Advisory Committee shall work directly with the County's project team including consultants and staff. Its work shall be coordinated with the County's overall efforts to improve water resource protection and maintain compliance with state and federal water quality mandates.

The Advisory Committee will conclude its work when a final recommendation is made to the Board of Supervisors no later than October 30, 2015. The Committee shall provide periodic updates to the Board on the progress of their work as appropriate. The following are anticipated milestones for this work:

- April 2014 – Staff develops RFP for technical consultant
- May 2014 – RFP submittals due to County for consideration
- June 2014 – Board invitation for committee members
- June 2014 – Interview and select consultant
- July 2014 - Consultant contract completed
- August 2014 – Board appointments made
- August 2014 – Consultant begins working with staff to prepare background information for committee
- September – December 2014 – Committee develops understanding of issues and possible recommendations
- January 2015-May 2015 – Committee develops recommendations
- June – August 2015 – Committee report completed
- September 2015 – Committee report delivered to Board
- October 2015 – Board selects funding solution to be applied to FY 17-21 Five Year Plan

Membership Selection Process

The Water Resources Funding Advisory Committee shall consist of approximately fifteen (15) voting members appointed by the Board of Supervisors. Appointments will be based

on staff recommendations, nominations from community and business groups and individual applications.

Membership Selection Criteria

The Water Resources Funding Advisory Committee will be composed, at a minimum, of the following representatives:

- One member of the Board of Supervisors to serve as a liaison
- One member of the Planning Commission to serve as a liaison
- One representative from a Community Advisory Council
- One representative from a homeowners association
- One large property owner
- One representative from the Farm Bureau
- One representative from the Soil and Water Conservation District
- One representative from the faith community
- One representative from the Town of Scottsville
- One representative from an environmental protection organization
- Two representatives from the general public
- Assistant County Executive
- County Attorney's Office
- County Water Resource Manager

The Board of Supervisors will appoint members based on their qualifications and interest in serving on the Committee. An individual may be appointed to represent more than one of the above referenced groups. The Board will strive to appoint an overall membership that is diverse in age, abilities, experiences, professions, interests, etc.

Member qualifications include:

- Experience working within a consensus-driven decision-making process, and a commitment to such a process in fulfilling the Committee's responsibilities as outlined in the charge statement;
- Willingness to work within established County procedures and processes;
- Ability to be open-minded; to listen and be respectful of the values, views and opinions of other representatives;
- Ability to share information with, and receive information from the community at large;
- Ability to meet once a month and possibly more often over the next year; and
- Being a resident of Albemarle County (while every effort should be made to include County residents, this may not be appropriate in all cases)

Advisory Committee Organization

The Board of Supervisors shall designate the Committee Chair. The consultant team and other County staff shall serve as technical representatives and shall be responsible for assembling and compiling all information and reports necessary for the Committee's work to progress, including meeting notes.

Meetings will be held approximately once a month. The date and time of Committee meetings shall be established at the first meeting; additional meetings may be called by the Chair. All meetings will be open work sessions, where the general public is invited to attend

to listen and observe, unless public participation is deemed appropriate by the Chair. Active participation will be extended to the general public at open houses, workshops and public hearings. In addition to the Advisory Committee, the project will include a public engagement program for the public at large to include active participation at open houses, workshops, and other appropriate venues.

No quorum shall be necessary to conduct business, but no vote will be taken unless a quorum is present. A majority of the voting members of the Committee shall constitute a quorum. Decisions shall be made, if possible, by an indication of general consensus among the Committee members present. Staff (other than appointed members) will not participate as decision makers. When this method does not serve to establish a clear direction, the chair shall call for a roll-call vote. When an agreement cannot be achieved on an issue, business shall proceed and County staff shall document and present minority positions for future Board of Supervisor consideration.

Facilitation will be provided in those instances when it is considered beneficial in helping the Committee achieve its stated purposes.

Water Resources Funding Mechanism Study

Advisory Committee Priorities and Expectations

The Albemarle County Water Resources Funding Advisory Committee (WRFAC) was asked the following questions about priorities and expectations at their November 13, 2014 meeting. The answers will assist the County as it refines the decision-making process and will serve as a point of reference for the WRFAC as it considers recommendations to the Board of Supervisors.

Process Expectations

“What are your expectations for the process?”

- Clarify expectations for how WRFAC members are to communicate with the public and the stakeholders they represent. This includes both sharing information with the public and stakeholders and seeking their input.
- Maximize participation in the decision-making process and gather feedback from a large and diverse group of stakeholders.
- Ensure all committee members have an equal chance to participate.
- Get to substantive issues for discussion and debate early on so that the committee is not rushed to make decisions at the end.
- Ensure process transparency.
- Make each WRFAC meeting impactful.
- Clearly define stormwater program elements and the goal of each element.
- Ensure that WRFAC meeting notes capture all ideas and discussion points.

Stormwater-Related Problems, Needs, and Issues

“What stormwater-related problems, needs, and issues are you concerned about?”

- **Mandates.** Priority should be placed on meeting Department of Environmental Quality (DEQ) mandates.

- **Infrastructure.**
 - The deteriorating physical condition of aging stormwater management infrastructure in urban areas affects not only public safety but also private property. Need to coordinate with the Virginia Department of Transportation (VDOT).
 - There is a large inventory of infrastructure that is not owned by the County or VDOT that needs to be addressed.
 - Consider infrastructure such as curbs and gutters that control stormwater locally.

- **Stormwater Velocity.** Stormwater leaves pipes at a very high velocity – this causes erosion at the outfall and in streams.

- **Low Impact Development (LID).**
 - Need to incorporate LID into new development where possible.
 - Ensure that County ordinances and policies are set up in a way to encourage LID. Assess whether there are policies that inadvertently get in the way of LID.
 - Be mindful that LID policies do not have the unintended consequence of promoting urban sprawl.

- **Rural Needs.**
 - Rural subdivisions built prior to stormwater regulations face unique issues, including lack of stream buffers and stormwater management infrastructure. Sprawling development makes solutions less cost-effective.
 - Many rural streams are also impaired and degraded. These should be the subject of restoration efforts.

- **Sanitary Sewers.** Ensure adequate communication among the County, the Rivanna Water and Sewer Authority, and the Albemarle County Service Authority regarding the identification and elimination of pollutants entering streams from the sanitary sewer system.

- **Public Education:**
 - Establish a strong educational program that clearly links what happens on the land to water quality.
 - Provide incentives that will change behavior and result in practices that reduce the need for any fee.

Community Considerations

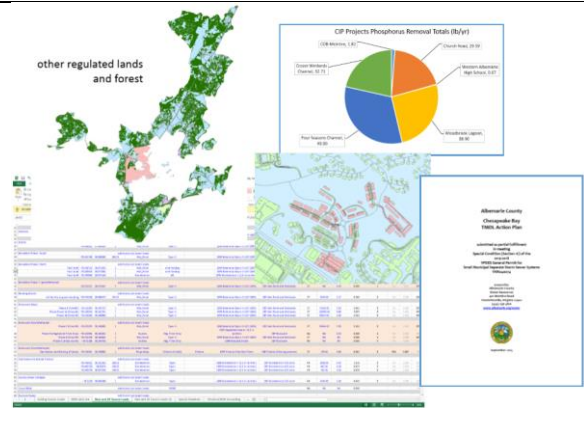
“What are the primary community considerations that should be factored into the final recommendations?”

- **Environmental Protection.** Protect Albemarle County’s environment for future generations.
- **Mandates.** Ensure that the County meets state and federal stormwater mandates.
- **Equity.**
 - Establish a link between rate paid and a property owner’s benefit or contribution to the problem.
 - Consider services being delivered to growth versus non-growth areas.
 - Ensure that all sectors pay their fair share – businesses, residents, and government.
- **Planning for Long-Term Benefits.**
 - Protect Albemarle County’s environment for future generations.
 - Focus on solutions that achieve multiple benefits, such as protecting riparian corridors.
 - Think a step beyond existing mandates and anticipate future mandates when making decisions about investments.
- **Accountability and Measuring Progress.**
 - Establish a baseline and a mechanism to test actual progress toward meeting reductions. Ensure that money spent has been effective at reducing pollutants of concern.
 - Clearly identify what needs to change. Set priorities, rank them, and then set goals for implementation.
 - Always come back to the reason why we are doing something – what is the compelling case.
- **Economy.**
 - Strategies should address economy, environment, and equity.
 - Be mindful of working with the business and development community, especially with regard to impacts on small business.

- Highlight the impact of the County's actions on the downstream economy (cost of water treatment, livelihood of Chesapeake Bay watermen, etc.). Investments make Virginia's overall economy stronger, which benefits the County.
- **Public Health.** Link stormwater and water quality with community health – “Greener, cleaner, healthy community.”
- **Public Education and Input.**
 - Ensure broad input into the decision-making process. Ensure all stakeholders have an opportunity to be informed and provide their perspectives.
 - Provide public education materials explaining how land use and people's activities affects water quality and ecosystem health.
- **Holistic Approach.** Don't just focus on the MS4. Examine ways that the County's program can reduce all sources of pollution, including pollution from agricultural practices.
- **Regional Collaboration.** To the extent possible, work with adjacent entities to address challenges as an integrated community. Examine opportunities to reduce costs and redundancy.

Summary of County Programs

Existing programs to be <u>continued</u>	
	Construction Site Erosion and Pollution Control The County must ensure that land-disturbing activities provide runoff control and onsite measures to minimize the amount of soil erosion and prevent the release of construction-related pollutants. County responsibilities include plan review and inspections.
	Stormwater Management for New Development The County must ensure that development provides permanent measures, such as stormwater management facilities, to control the discharge of runoff and minimize the amount of pollutants discharging to natural waters. Responsibilities include plan review, construction inspections, and inspections to ensure long-term operation.
	Public Education The County collaborated with the City of Charlottesville, UVA, and other local partners to inform the general public about water pollution, stormwater management, and ways individuals can contribute in achieving healthy waters. Public education is done through various media, including newspaper ads, mail inserts, and animated movie ads.
	Illicit Discharge Detection and Elimination The County must seek out and eliminate non-stormwater discharges into storm drains and streams by investigating complaints and through proactive field investigations.

	Pollution Prevention at County Properties The County must minimize the potential for pollution discharges resulting from County operations through proper storage and handling of materials, cleanup of spills, and training and inspections.
	Stormwater Facility Maintenance The County provides regular and ongoing maintenance at publicly-owned stormwater management facilities – including those on school properties. This includes mowing, vegetation management, removal of trash and debris, and occasional repairs.
 The composite image includes a map of regulated lands and forest, a pie chart titled 'CIP Projects Phosphorus Removal Totals (lb/yr)' showing the distribution of phosphorus removal across different projects, and a table of project data with columns for project name, location, and phosphorus removal totals.	TMDL Planning The County is responsible for preparing Action Plans for the Chesapeake Bay and designated local impaired streams. These plans include calculating required reductions in pollutant discharges and the actual reductions the County has and will achieve through past and future capital projects. These plans are prepared based on DEQ guidance and must be approved by DEQ.
	Dam Operation and Maintenance regulations designate the County as responsible for the safe operation, maintenance, inspection, repair, and improvements to its six regulated earthen dams, and to create emergency action plans.

	Floodplain Management The County is responsible for ensuring that land development and other activities do not result in increased flood hazards.
	Groundwater Management In an effort to better understand and protect the County's groundwater resources, the County adopted various rules in 2005 requiring the submission of information related to wells and groundwater assessments prior to the issuance of building permits.
	Emergency Infrastructure Repair addresses failed public stormwater management facilities and public conveyance infrastructure (manholes, pipes, and channels).
Existing programs recommended to be <u>expanded</u>	
	TMDL Capital Program The County must design and build capital projects – such as stream restoration projects or retrofits of poorly-performing stormwater management facilities – in order to achieve the pollutant reductions required by the Chesapeake Bay and local stream TMDLs.

	Drainage Infrastructure Mapping The County must map the entire system of stormwater conveyance infrastructure, including pipes, manholes, and channels constructed over the course of many years. The County must also research court records to determine whether the infrastructure is public or private. This mapping exercise will inform future maintenance and repair programs.
	Stream Buffer Protection County ordinances prohibit impacts to vegetation generally within 100-feet of streams and lakes. Vegetation should include healthy varieties of trees, shrubs, and groundcover. Adequate public education, incentives, and enforcement are necessary for the success of this program.
Programs recommended to be <u>introduced</u>	
	Infrastructure Assessment and Regular Maintenance This program would follow the infrastructure mapping exercise and involves assessing the public infrastructure and developing a program for regular maintenance, repair, or replacement. Proactive maintenance can prevent costly failures.
	Watershed Planning and Restoration This program would address impairments to streams throughout the County and would include comprehensively assessing stream quality, identifying mitigation opportunities, and implementing restoration projects.

Water Resources Funding Advisory Committee Preliminary Program Plan Preferences

A summary of Committee responses to questions poised at the December 11, 2014 meeting.

Should the County adopt and proactively maintain conveyance infrastructure which meets certain criteria (i.e., over a given size or receiving runoff from public properties) on private properties but not within public easements?

- Consensus was to map and assess all private conveyance infrastructure regardless of whether it is in a public easement. It is important to understand the extent and nature of the entire system.
- Regarding conveyance infrastructure on private property and within a public easement, the County needs to budget for adequately maintaining that infrastructure once the extent is determined.
- Regarding conveyance infrastructure on private property and not within a public easement, the BOS should make decisions about maintenance responsibility after the extent of the issue is known. The committee discussed three possible options:
 - decide not to expand the scope of the County's service
 - institute some kind of cost-share with private owners when the infrastructure fails or is in need of maintenance
 - assume responsibility for maintenance

The selection of a policy option should consider the type and structure of any fee or tax implemented to pay for the County's stormwater program.

If so, how aggressively should the County inspect and maintain the system?

- Consensus was to conduct an assessment of the entire system (age and conditions) within at least the next five years and to immediately begin setting aside funds sufficient to cover 1% system rehabilitation/replacement annually.
- The 1% figure is considered a minimum assuming a 100-year lifespan for concrete pipe. The actual percentage will need to be revisited after completion of the assessment.

Should the County adopt and proactively maintain private BMPs?

- Consensus was that the advisory committee is not yet ready to recommend that maintenance shift from the private owner/operator to the County.
- This issue should be kept at the forefront and revisited within the next five years. The County must more rigorously enforce maintenance agreements under VSMP/MS4. If the current system is not working, the BOS may want to consider alternative models, including but not limited to the County assuming maintenance responsibility.
- Similar to conveyance infrastructure maintenance, the selection of a policy option should consider the type and structure of any fee or tax.

Should County programs address impaired streams and other waters beyond State requirements – impairments outside the regulated area and impairments within the regulated area but not currently under MS4 mandate?

- Consensus was to conduct necessary watershed planning to identify and prioritize projects and programs to address these impaired streams and to set aside annual funding now to ensure that implementation can occur in a timely manner after plans are completed.
- Staff was requested to determine the funding needed to ensure a reasonable pace of implementation.

Should stream buffer requirements be more proactively implemented and enforced?

- Consensus was to hire the necessary staff to proactively enforce the buffer area requirement.
- While County staff reported relatively infrequent buffer encroachment complaints, TJSWCD noted that they get a lot of complaints about buffer violations from callers who initially contacted the County but were told that there are no staff resources for enforcement.

Community Outreach Summary

Date	Event	Target Audience	Attendees	Advertising
April 29	Neighborhood Leadership Summit	Neighborhood Association leaders	60	Homeowner Association (HOA) email list, Community Advisory Committee (CAC) email lists
June 3	EARL presentation	Earlsville residents	3	Earlsville Area Residents' League (EARL)
June 17	North Charlottesville Business Council Board meeting	Business owners	13	Closed meeting
June 17	Crozet Community Advisory Committee meeting	Crozet-area community	20	CCAC email, Crozet Community Association
June 24	Water Resources Open House at Lane Auditorium	Countywide	40	A-Mail, Facebook, Twitter, Email to HOAs, announce at CACs, media, Chamber of Commerce
July 21	Community Meeting on Water Resources at Northside Library	Countywide	36	A-Mail (General County, Places29, Natural Resources)
July 27	Pantops Community Advisory Committee	Pantops-area community	10	Pantops CAC, Pantops-area HOAs
July 27	Village of Rivanna Community Advisory Committee	Rivanna-area community	8	Rivanna CAC, Rivanna-area HOAs
August 4	White Hall Ruritans	White Hall residents	40	Ruritan mailing list
August 10	Religious Organizations	Faith Community / Tax-Exempt Organizations	15	Direct email/phone
August 11	Farm Bureau Annual Dinner	Agriculture	100	Farm Bureau membership

Neighborhood Leadership Summit

- Brief presentation by Greg Harper (10 minutes) intended to pique interest in upcoming Open House
- Encourage attendees to contact Greg directly for comments/questions

EARL Presentation

- In general, this group understood the underlying issues and was supportive of the approach to funding being considered by the Committee (utility).

North Charlottesville Business Council Board meeting

In general, the group seemed to prefer a tax over a fee-based system. They felt that tying fees to impacts using imperviousness as a metric was not the most equitable way to address impacts and that real estate assessments were a more equitable approach.

Specific points raised:

- Over-regulation is harming businesses
- Albemarle was a leader in water quality protection for decades and the TMDL does not give enough acknowledgement of leading localities in their of reduction allocations.
- Because agricultural operations (farming, livestock) have a relatively higher contribution of pollutant loads to area waterways, but have relatively low imperviousness, a tax basis would better distribute the costs across all tax payers – fees related to imperviousness do not account for this.
- Existing BMPs should generate credit
- The cost of administering a utility, keeping the data current, and evaluating BMPs greater in a utility vs. a tax. Administrative costs should be kept as low as possible.
- A minimum fee for all payers was seen as positive.

Crozet Community Advisory Committee

In general, the group was supportive of the approach to funding being considered by the Committee (utility).

Questions:

- Should increase enforcement for when utilities are out doing work; often dig without using E&S measures
- Cows in streams continues to be a big issue in the rural area
- How does UVA factor into this?
- Can a hybrid model be pursued, where it's based on real estate taxes but tax credits can be applied for?
- Will rural area homes with long driveways have to pay based on the imperviousness of the driveway? That could create a burden.

After Greg left, someone said in the City, the utility fee per year is less than \$50. The group felt that was reasonable.

Water Resources Open House at Lane Auditorium

In general, attendees felt the Water Resources Program should be funded through the general fund and expressed skepticism of the quality of data used by DEQ and the County to identify impaired waterways and the causes of those impairments; the make-up of the Advisory Committee as representing the

interests of Albemarle County's citizens; and the equity of any separate funding mechanism for the rural areas.

Questions & Comments:

- Fund program through sales tax
- General dissatisfaction with extrapolation of current percentage of impaired/healthy streams on waterways with insufficient data
- Does the County apply for grants? Can grants pay for this mandate?
- Request for an example of stream improvement
- Request to know if all Advisory Committee members lived in AC
- Appeal from citizen for all present to "talk to the board" about concerns over Advisory Committee make-up
- Expression of concern about the precedent for further separate funding mechanisms, including general sentiment of "not wanting to be nickel and dimed"
- Request for update on how Charlottesville's fee is working
- Concern that any WR program is unfair to farmers
- Concern that the way DEQ defines "impaired" is flawed: heavy rain may cause impairment, even if stream tests healthy 9/10 times
- "Overhead" (staff cost) is too high
- Question regarding feeder streams – can one judge impairment or health by the state of downstream waterways
- How will the county manage streams when they can't manage roads?
- Will the Supreme Court overturn this mandate in a few years, making these expenses unnecessary?
- Grass grows through my gravel driveway, why is it considered impervious?
- Utility fee is really still a tax, residents cannot opt-out of the service.
- Concern that non-profits are included and "competing" with for-profit enterprises
- Forests contribute more sediment to streams than pasture; invitation for Greg to come visit citizen's property and see

Village of Rivanna Community Advisory Committee

The focus of the discussion portion was on questions; no clear consensus on funding mechanism although there was general concern that a simple system that minimizes the need for overhead/administration was preferred.

Questions & Comments:

- Will new developers have to pay for new roads and new houses they build?
- If the funding mechanism allows for credits, will the County need to hire additional staff to inspect them?
- How will we come up with all of the data to determine how much to charge (square footage of impervious surface)?
- Will there be an appeal process?
- Will the Board have to set the rate through a public process?
- Will UVA have to pay into this?

- If implemented, will the 0.7 cents on the tax rate go away (and hence, real estate property taxes go down)?
- Is consideration being given to churches? They're not used to paying fees and may not be able to.
- How much would the average homeowner pay?
- How much would the average commercial property pay?
- Will this system increase the cost of administration?
- What are you going to do once you get all of the money to clean up the streams?
- What do you think about weed chemicals?
- Would we get credit for not using chemicals on our lawns?

Pantops Community Advisory Committee

The focus of the discussion portion was on questions; no clear consensus on funding mechanism.

Questions & Comments:

- What are other localities doing?
- Like that the usage fee as it related to impacts
- Why do we need three different groups working on water? Wouldn't it be cheaper to work together? (City, County, ACSA)
- Can Albemarle County choose not to comply with new mandates?
- Will there be an appeal process if you don't agree with your assessment?
- Is this related to the Chesapeake Bay?
- Could we look at this as a credit-based, incentive system?
- Important to remember that the end issues is actually water and stream quality.

White Hall Ruritan Meeting

County staff were invited to attend this meeting in which a local technical expert was asked to weigh in on the TMDL program and Committee's draft proposal. Staff were not given an opportunity to present but were allowed to address what had been presented and to answer additional questions. The focus of the discussion was on rural landowners. In general, the audience did not believe a new funding mechanism was appropriate, but should remain in the General Fund or be added to the sales tax.

Questions & Comments:

- Clarify: 19 employees, 1.8\$M total salary and capital
- Separate the stormwater effort and any pollution reduction program.
- We went down a rabbit hole about nitrogen, phosphorus, and sediment when we should be focusing the expense list on stormwater
- Alarm. Basis of program is a study from 2009. Valuable now? Bay model is continually being updated. Looks like a computerized model
- Impervious surfaces all roads, Pollution of hayfields and pastures
- I have tried to explain that the state can penalize us via the MS4 permit but we can achieve some of our reductions by installing BMPs in rural areas at lower county expense
- Measurable metric needed. Survey confusing. Assumes a lot of particular knowledge.
- Three federal and state mandates driving the county's work

- New funding options. Now general fund. Leaning toward the utility fee
- How good is the utility in a rural area without a density factor?
- Connection between 65 acres impervious, less than one tenth of a percent of the land
- If long driveway, with grass in it, is this impervious? Compacted gravel driveways???
- Waverly subdivision has private roads. How will that be done????
- 3-6 acre lots, how measure impact on rocky run
- Improve water as it leaves Albemarle County and heads to Bay
- Nitrogen is out of balance when it is a problem
- 3.31 percent from impervious surfaces. Wonder about use of data picked up out of context Best to stay away
- Mandate to reduce the total releases of nitrogen, phosphorus, and sediment. 67 percent of nitrogen is coming from Open land.
- Reduce nitrogen by eleven percent
- Animal operation has to drop by 80 percent? NO
- Poundage. Reduction of animal operations 80 percent
- Is there an increase admin costs - How do we track this?
- Connection of fees vs services in rural area?
- Stormwater connection in rural area
- If general fund, land use program would help cut expenses for rural residents. Will the land use value be used for a fee program?
- TMDL improvements not a mandate. Should we go step by step in the roll out? Attack the mandate and raise the performance bar on streams step by step?
- Do not see county funds remediating streams. Grants maybe
- Drought changes bring about a reduction?
- Competition for dollars make efficiency. Trees forestry helps the stormwater as well as nitrogen
- Gaseous nitrogen vs water. Not talking about atmospheric nitrogen
- Urban area has largest nitrogen input. Arlington Co is the highest in VA
- Developers have to hold the water on the lot.
- Steep slopes increase run off
- Pay the farmers for cleaning water with BMPs
- Options and reduction. What is being done in the programs for the money???? Need clear answer
- Mapping, planning, inspections; some skepticism about the accuracy of our GIS.
- When did we get so interested in the Chesapeake Bay
- Allowed thousands of tons of sludge
- Septic drawback \$70k dumping fees; no break for the schools septage; three weeks ago Moores Creek (RSWA wastewater treatment plant) decided no more dumpers after five pm; others will just dump into a stream; costs to RSWA in the night is the same
- What can be done to improve septic systems in rural area to reduce pollution? Add yeast and pump out to increase efficiency to solve the septic reduction
- One position not mandated, works on stream buffer Year one of our ten year plan Capital projects will begin in 2017. \$4.2M is meeting mandates only
- General fund
- Capital. What for? Meadow creek stream restoration. One mile of stream. Reduced erosion and cuts sediment
- Pipes and water conveyances, dams a better answer in my opinion

- Program \$4.2M do the minimum; infrastructure investments; Baseline needs to be done when the MS4 permit starts
- Mandates are extrapolated by DEQ and proscribed to Albemarle; annual reductions over next fifteen years; may be some changes in the future
- Neighborhood built in the sixties; drainage ditch between her and her abutter. How does this area get treated?
- Observed the County efforts to improve the County's infrastructure retrofit at Four Seasons – improved the pipes, dredged the lake
- Real money is going to real projects in the urban ring
- Other places there are unknown problems
- VDOT has responsibility for its own MS4 permit. Details about that.
- How is the state living up to its obligation? Communities can help, but the general assembly needs to pay for it.
- Admin fees for utility will be too high. Details about utility admin fees?
- Increase to general fund better in some people's opinion
- Bailey's 174 acres to Buck Mountain reservoir; RWSA fenced off the streams and put in watering systems but took 100 feet
- Keep in the general budget and keep in projects in the capital budgets and decide

Faith Community / Tax-Exempt Organizations

The focus of the discussion portion was on the fairness of assessing tax-exempt organizations a stormwater utility fee and the ability of some of these organizations to pay.

Questions & Comments:

- Concern for the ability of small rural churches to pay – given small congregations and (often) lack of existing stormwater management onsite
- Churches in the County are different from businesses:
 - mostly small (50 member or less)
 - most are used only a few hours per week
 - churches provide services to County residents
- Churches and other non-profits are tax free and should be free from fees, too
- County residents who are members or supporters of churches would essentially pay twice – once for their home and once for the church
- Why hasn't the County planned for the lifespan of drainage infrastructure?
- County businesses, big companies, and restaurants discharge more pollution than churches
- Likes the fact that the fee would be based on the runoff "footprint"
- It's unfair to have to maintain a BMP and pay any stormwater fee
- Rural properties receive no benefits from the program
- Why is a farm on Wesley Chapel Road used a dumping ground for sanitary waste from Northern Virginia?
- Churches cannot pass expenses onto a customer, as businesses can
- In addition to property credits, there should be a credit for using meeting space, recycling, service projects, etc.

Farm Bureau Annual Dinner

County staff were invited to summarize – in just a few minutes – the Committee process and recommendations.

Questions & Comments:

- There were no questions or comments
- Prior to staff addressing the members, a member made a resolution that the Farm Bureau state their preference for continuing to support water resources programs through the General Fund and this resolution was unanimously accepted by the membership

Comments received directly – email, letters, in-person, Engage Albemarle/MySidewalk

Questions & Comments:

- Stick with General Fund; creating a utility will only result in an empire that will be encouraged to grow; in addition, the data needed to inform the rate is too “big brother”-like (in person)
- Funding should consider the inherent water protection that is provided by owners of undeveloped land (letter)
- Not enough information was presented at the June 24 open house and all people should have had a chance to speak; funding mechanism should recognize and account for income disparities; some agricultural properties impact water resources but would not be proportionally charge (email)
- Supports applying a fee to land categorized beside impervious area, such as “unforested/lawn”; supports a generous credit for existing ag BMPs (email)
- Supports basing utility fee on all land use categories, including forested, open land, and impervious area with different rates applied to each land use category (email)
- Should figure out how to distribute impacts of roadways to rate payers; property owners should be generously credited (up to 100%) for onsite BMPs; rates should be applied to lawns (email)
- Over-regulation is harming businesses; is the County searching for alternate funding (eg. grants?); how does this relate to the 0.7 cents? (email)
- Agrees that “some controls should be imposed to protect our waterways”; however, strongly opposes a separate fund because it will promote the “usual excesses” and a utility would require a “large agency” to implement; doesn’t trust a system that can “subjectively determine” contributions and rates (email)
- Questions about how private and public roadways in a residential neighborhood would be assessed (email)
- The proposed utility has upset a lot of neighbors but they don’t feel the effort involved to speak at a Board meeting would be worth it (email)
- New development should be mitigated by larger area of reclaimed land or the implementation of BMPs; therefore, future development would result in an overall improvement over time (Engage Albemarle/MySidewalk)
- Wouldn’t this (above) exhaust all available land and wouldn’t this tend to benefit the already landed? (Engage Albemarle/MySidewalk)

- Rates for rural properties should take into consideration whether runoff from impervious area impacts streams or are is the runoff buffered by land cover and the distance from streams; the rate structure should not be a “one-size-fits-all” formula

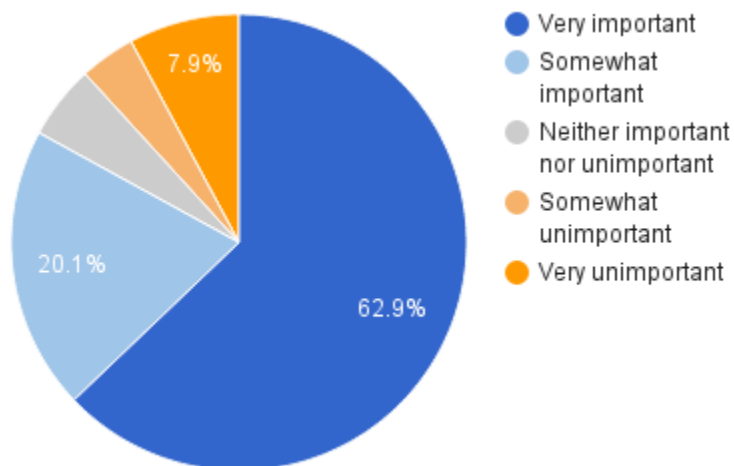
Content Generated

Activity	Date	Content
Website (public-oriented content)	May 28	www.albemarle.org/waterfunding
Video	May 29	https://www.youtube.com/watch?v=METPUiDaPic
Survey 1	May 14 – July 6	See attachment
Engage Albemarle/MySidewalk	June 1 – June 30	See attachment
Posters	June 24	View online
Handouts	June 24	View online 1 and 2
Presentation	June 24	View online

Water Resources Survey 1

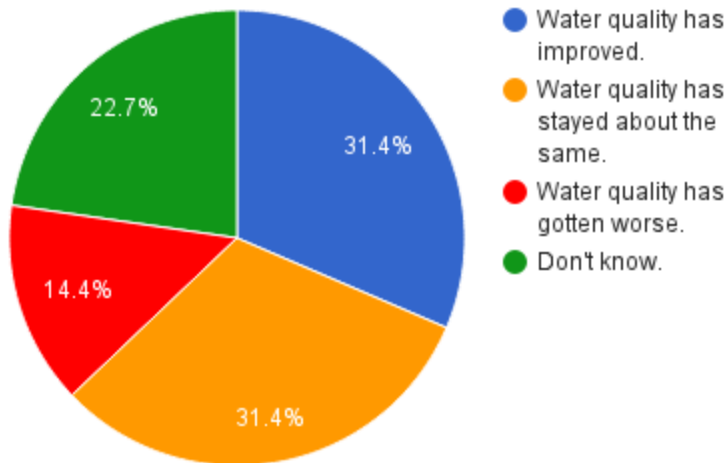
This survey ran from May 14 through July 7 and had 231 respondents.

1. How important is the water quality of our local streams, lakes, and rivers to you?



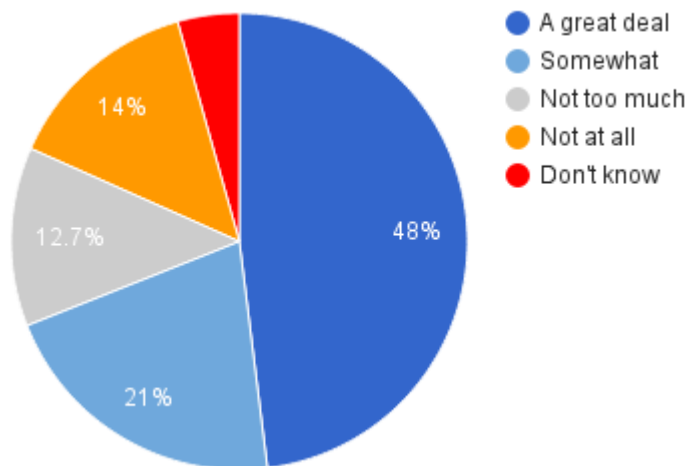
Discussion: There is strong feeling on behalf of respondents that local water quality is important, with a combined 83% of respondents selecting very important or somewhat important.

2. How would you compare the water quality of our local streams, lakes, and rivers to 10 years ago?



Discussion: The responses to this question showed the widest range. The majority of respondents do not believe water quality has degraded. More than 1 in 5 respondents chose “Don’t know”, indicating a lack of awareness.

3. In your opinion, how much does development and other land-disturbing activities effect the quality of local streams, lakes, and rivers?



Discussion: Among respondents, there is a relatively strong understanding of the connection between land disturbance and stormwater runoff impacts, with an aggregate 69% choosing “a great deal” and “somewhat”.

4. What should Albemarle County’s priorities be concerning water quality? For each issue, rank from 1 (high priority) to 5 (low priority)
 - a. Ensure **compliance with** state and federal **regulations**.
 - b. **Protect and clean-up** of **all** local streams, lakes, and rivers.
 - c. **Protect and clean-up** the **Chesapeake Bay**.
 - d. Ensure **new development** does not **impact** local waterways.

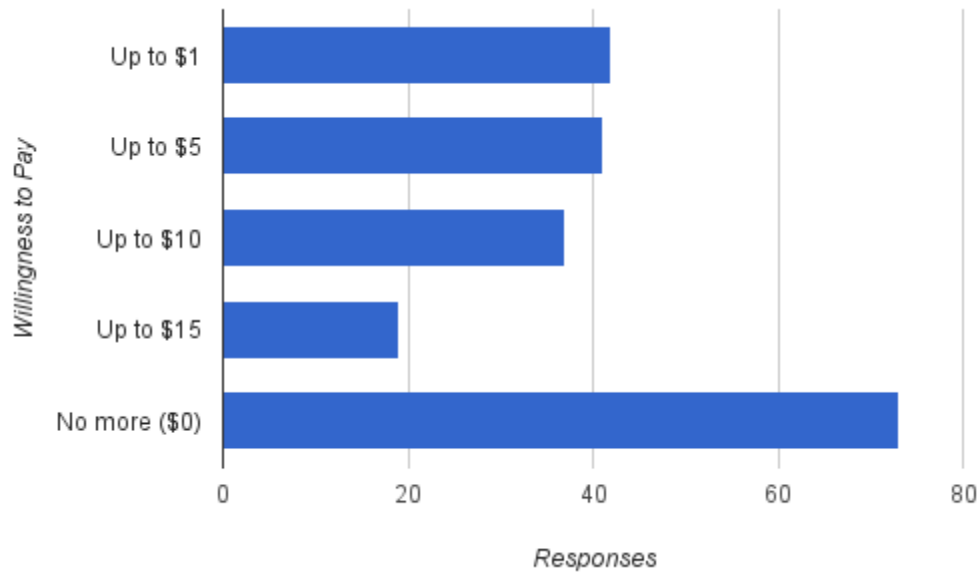
- e. **Map and assess** the condition of water **conveyance infrastructure** (pipes, culverts, etc.) in the County.
- f. **Maintain** the County's **conveyance infrastructure**.
- g. Incentivize **existing development** to **reduce impacts** on local waterways.

In order of priority:

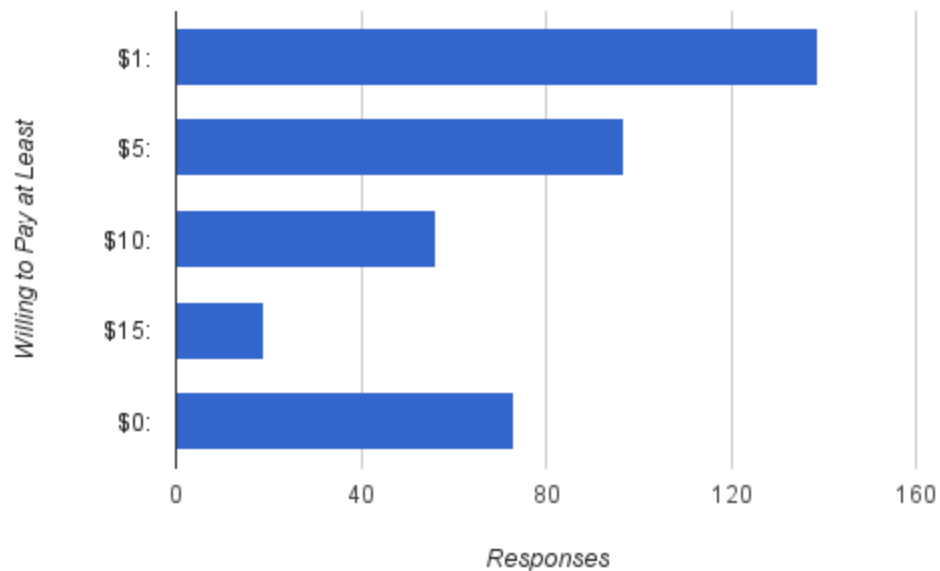
- i. High Priority
 - 1. New development impacts
 - 2. Compliance with regulations (High priority)
- ii. Medium-High Priority
 - 3. Maintain conveyance infrastructure
 - 4. Existing development reduces impacts
 - 5. Protect and clean-up all
- iii. Medium Priority
 - 6. Map and assess conveyance infrastructure

Discussion: Note none of these had a median value below “3 (Medium Priority)”, indicating that the respondents did not feel any of these were of low priority. While the highest priority is on new development and meeting mandates, close behind are maintain conveyance infrastructure, incentivize existing development to reduce impacts, and protect and clean-up all local streams, lakes, and rivers. These three items are all part of the program and fee structure that the WRFAC is recommending – that the program include planning for all of the County’s waterways, that conveyance infrastructure be proactively maintained, and that property owners have access to a credit system to reduce their costs through impact mitigation.

- 5. How much would you be willing to pay to ensure your priorities (identified in the previous question) are addressed in Albemarle County?
 - a. Up to \$1 per month
 - b. Up to \$5 per month
 - c. Up to \$10 per month
 - d. Up to \$15 per month
 - e. I'm not willing to pay any more.



This chart indicates the most respondents (about half) are not willing to pay any additional costs for water resources programs. However, this chart shows the maximum amount the respondent was willing to pay per month. The chart below shows the total number of respondents willing to pay **at least** each monthly amount.

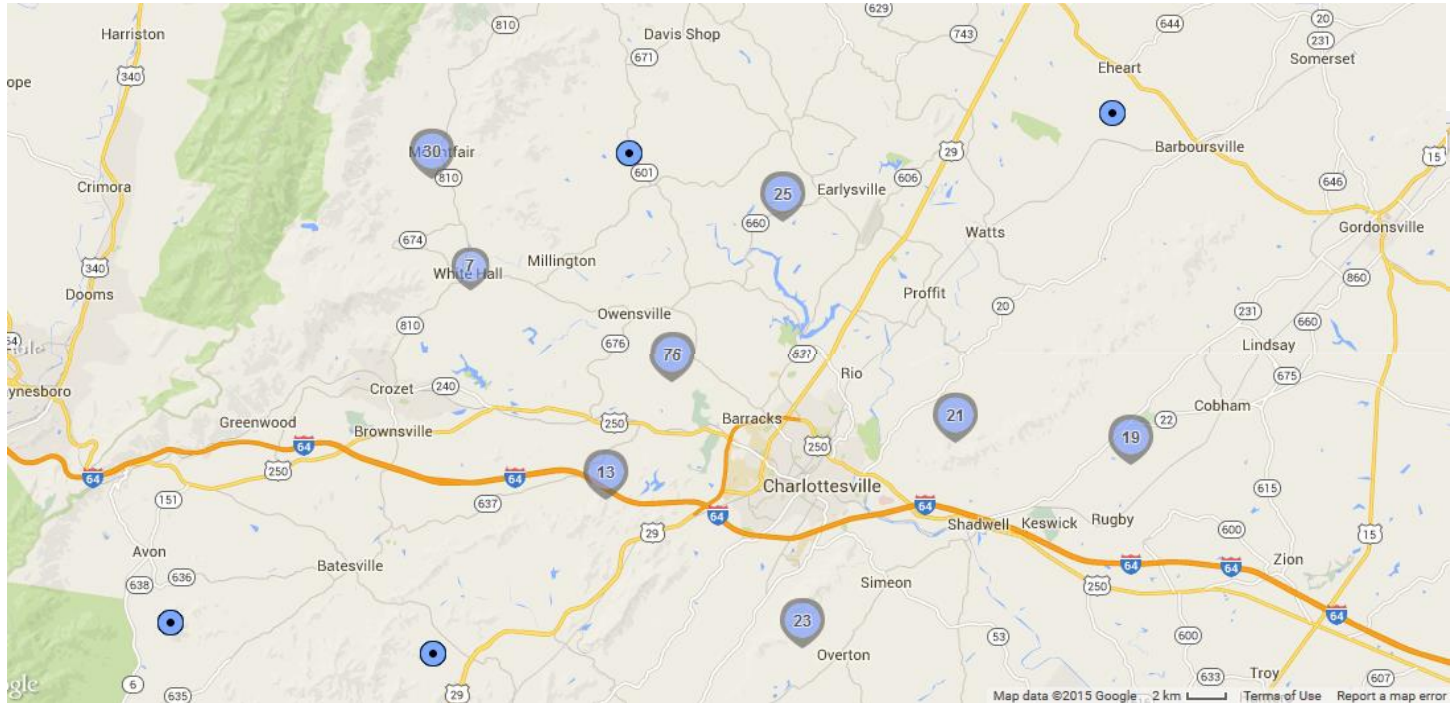


Discussion: While no increase is the single-most popular response, looking at aggregate support for funding levels shows there is a greater willingness to pay some additional costs for water resources programs. There is relatively strong willingness to support water resources programs

at a cost of \$1 per month (37% of respondents) and fair willingness to support at a cost of \$5 per month (25% of respondents). Support drops considerably at higher monthly amounts.

6. What is your zip code?

Respondents were distributed across the County, with greater responses in the urban areas and fewer responses in the rural areas, in line with population distribution.

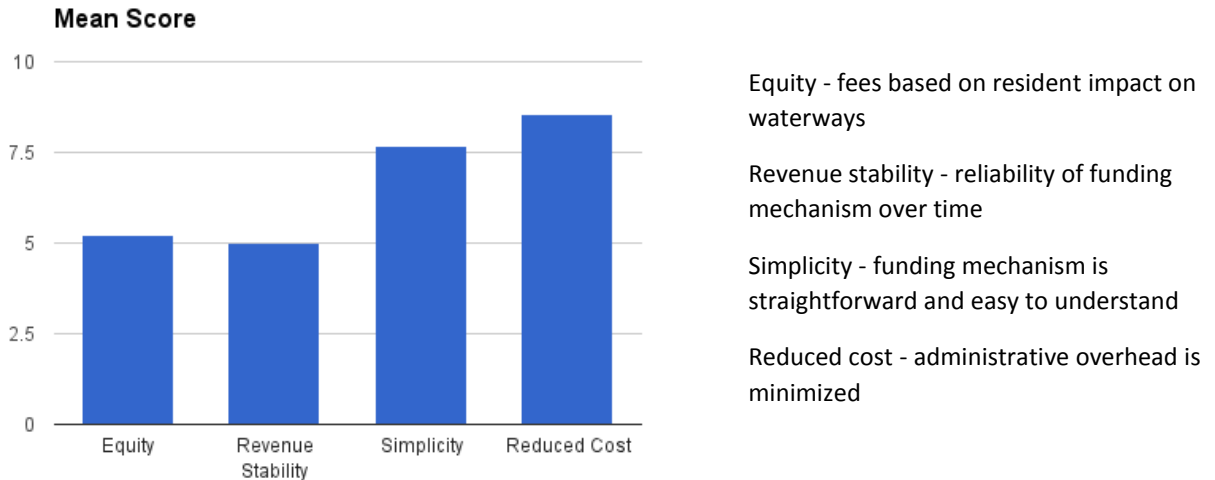


Water Resources Survey 2

This survey ran from July 6 through August 6, 2015, with 77 respondents.

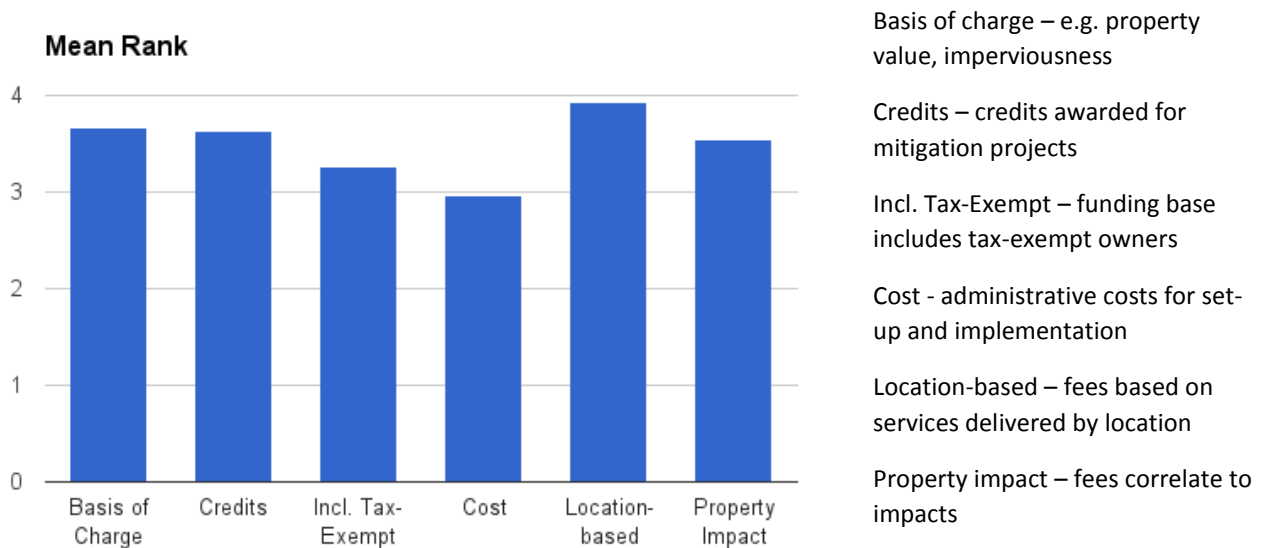
1. On a scale of 1 – 10, how important are each of the following factors to you in determining an appropriate funding mechanism for Water Resources programs?

Note: 1 is least important, 10 is most important



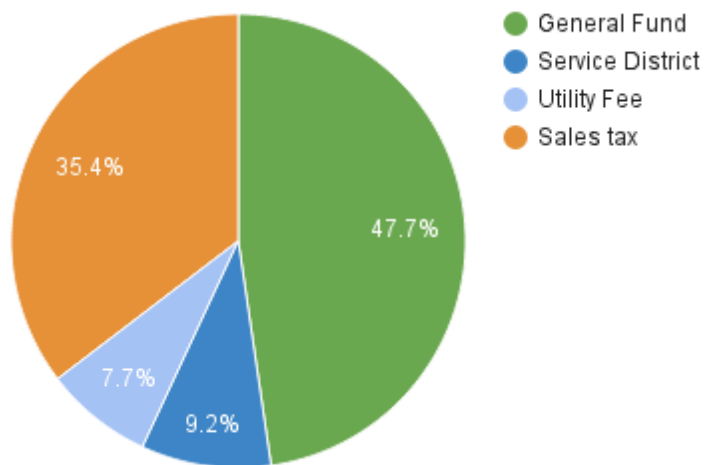
Discussion: Mean scores range from 4.94 to 8.59, indicating that all four factors have at least a moderate level of support among respondents. The strongest level of support was for “reduced cost”, indicating a funding mechanism with low administrative overhead would be preferred among respondents.

- Rank the following funding characteristics in order of importance from 1 (most important) to 6 (least important)



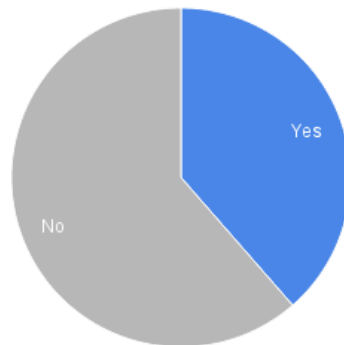
Discussion: Mean ranks range from 2.94 to 3.94, indicating there is no clear preference for any individual funding characteristic among respondents, although “cost” was ranked most important. The second most important characteristic was “inclusion of tax-exempt properties”. Taken together with the least important characteristic among respondents, location-based, there is a general sense that characteristics that differentiate between property owners are not preferred.

- Which funding mechanism do you prefer?



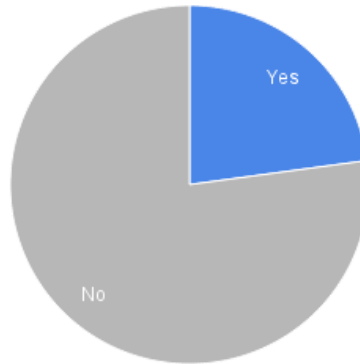
Discussion: Among respondents, creating a new, dedicated funding mechanism is not preferred, with a service district seen as more preferable to a utility fee. The original question provided four options, the general fund, service district, utility fee, and “other”. Over 35% of respondents provided “sales tax” as a funding mechanism. Five respondents provided unique “other” responses, including using state income taxes, cutting other services to pay for the additional funding needs, and taxing only urban areas.

4. Would you consider a program beyond current mandates if it was likely to produce long term cost savings (i.e., inspection and maintenance of infrastructure, in addition to required mapping)?



Discussion: Slightly more than 1/3 of respondents support a program that goes beyond mandates if it were to produce long-term cost savings to the community. The majority of respondents, however, do not feel the program should go beyond minimum requirements.

5. Would you consider a program beyond current mandates if it was likely to produce long term environmental benefits (i.e., stream rehabilitation projects in rural and urban areas)?



Discussion: Slightly more than 1/5 of respondents support a program that goes beyond mandates if it were to produce long-term environmental benefits. The previous question sought to establish support for a program that could result in long-term economic benefits, with a majority preferring to reduce program costs in the short-term. An even smaller proportion of respondents support a tradeoff of short-term costs for long-term environmental benefits.

Media Coverage

Outlet	Type	Date(s)	Headline	URL
Cville Tomorrow	Online news; promotion	6/4/2015	Committee to explore Albemarle's long-term funding needs	Link
Daily Progress	Newspaper; promotion	6/7/2015	Community meeting planned on how Albemarle should fund water protection mandates	Link
NBC29	Television	6/11/2015	Albemarle Co. Mulls Over New Water Tax	Link
WINA	Radio; promotion	6/15; 6/21; 6/22	N/A	
Z95.1	Radio; promotion	6/15; 6/22	N/A	
Free Enterprise Forum	Blog; promotion	6/22/2015	Albemarle Rain Tax Clouds on the Horizon	Link
CBS19	Television; promotion	6/24/2015	Stormwater Funding an Issue in Albemarle County	Link
Cville Tomorrow	Online news; promotion	6/24/2015	Open House on Water Resources Programs & Funding in Albemarle County	Link
Daily Progress	Newspaper; coverage	6/28.2015	Albemarle tackles best way to pay for water resources protection	Link
Cville Tomorrow	Online news; coverage	6/28/2015	Albemarle tackles best way to pay for water resources protection	Link
Crozet Gazette	Newspaper; coverage	7/3/2015	Albemarle Looks at New Fee or Tax to Fund Stream Protection	Link
Cville Tomorrow	Online news; promotion	7/21/2015	Community Meeting on Water Resources Programs & Funding in Albemarle County	Link

Social Media

A-Mail

- May 14, 2015 – Survey 1
- May 27, 2015 – Survey 1
- June 4, 2015 – Open House, Survey 1
- June 12, 2015 – Open House, Survey 1 & Video
- June 22, 2015 – Open House, Survey 1 & Video
- July 6, 2015 – Community Meeting & Survey 2
- July 14, 2015 – Update from the Committee

Facebook

- July 6, 2015 – Community Meeting & Survey 2

Twitter

- May 14, 2015 – Survey 1
- May 27, 2015 – Survey 1
- June 4, 2015 – Open House, Survey 1
- June 12, 2015 – Open House, Survey 1 & Video
- June 22, 2015 – Open House, Survey 1 & Video
- July 6, 2015 – Community Meeting & Survey 2

Committee Meetings

- September 25, 2014
- October 9, 2014
- November 13, 2014
- December 11, 2014
- January 8, 2015
- February 12, 2015
- March 12, 2015
- April 9, 2015
- May 14, 2015
- June 24, 2015
- July 9, 2015
- August 13, 2015