



**Albemarle County
5-year MS4 Program Plan**

and

Registration Statement Supplement

July 9, 2008 – July 8, 2013

**General Permit Registration Number:
VAR040074**

Submitted to:
Department of Conservation and Recreation
Division of Soil and Water Conservation
Stormwater Permitting
January 9, 2009



Department of Conservation & Recreation
CONSERVING VIRGINIA'S NATURAL & RECREATIONAL RESOURCES

VSMF GENERAL PERMIT REGISTRATION STATEMENT FOR STORMWATER DISCHARGES FROM SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS [VAR04]

(Please Type or Print All Information)

(The applicable fee specified in Form DCR 199-145 must additionally be submitted to the address given in that form to obtain coverage)

1. Regulated Small MS4

Name: Albemarle County MS4

Type: City County Incorporated Town Unincorporated Town College or University
 Local School Board Military Installation Transport System Federal or State Facility Other

Location (County or City): Albemarle County, Virginia

2. Regulated Small MS4 Operator

Name: Albemarle County Department of General Services

Address: 401 McIntire Road

City: Charlottesville State: VA Zip: 22902-4596

3. Hydrologic Unit Code(s) as identified in the most recent version of Virginia's 6th Order National Watershed Boundary Dataset currently receiving discharges or that have potential to receive discharges from the regulated small MS4:

See attached document

4. Attach a description of the estimated drainage area, in acres, served by the regulated small MS4 discharging to any impaired receiving surface waters listed in the most recent Virginia 305(b)/303(d) Water Quality Assessment Integrated Report, and a description of the land use of each such drainage area.

5. Any TMDL waste loads allocated to the regulated small MS4 (this information may be found at <http://www.deq.state.va.us/tmdl/develop.html>): None

6. The name(s) of any regulated physically interconnected MS4s to which the regulated small MS4 discharges.
None

7. A copy of the MS4 Program Plan that includes:

a. A list of BMPs that the operator proposes to implement for each of the stormwater minimum control measures and their associated measurable goals pursuant to 4VAC50-60-1240, Section II B; that includes:

i. A list of the existing policies, ordinances, schedules, inspection forms, written procedures, and other documents necessary for BMP implementation; and

ii. The individual, department, division, or unit responsible for implementing the BMP;

b. The objective and expected results of each BMP in meeting the measurable goals of the stormwater minimum control measures;

c. The implementation schedule including any interim milestones for the implementation of a proposed new BMP; and

d. The method that will be utilized to determine the effectiveness of each BMP and the program as a whole.

8. List all existing signed agreements between the operator and any applicable third parties where the operator has entered into an agreement in order to implement minimum control measures or portions of minimum control measures.

See attached document

9. The name, address, telephone number and e-mail address of either the principal executive officer or ranking elected official as defined in 4VAC50-60-370.

Robert W. Tucker, County Executive

401 McIntire Road, Charlottesville, VA 22902-4596

(434) 296-5841 email: btucker@albemarle.org

10. The name, position title, address, telephone number and e-mail address of any duly authorized representative as defined in 4VAC50-60-370.

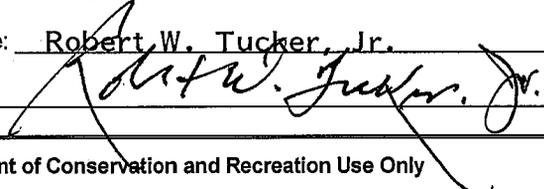
N/A

11. **Certification:** "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations."

Print Name: Robert W. Tucker, Jr.

Title: County Executive

Signature:



Date: 06 JAN 09

For Department of Conservation and Recreation Use Only

Accepted/Not Accepted by: _____ Date: _____

Basin _____ Stream Class _____ Section _____ Special Standards _____



**5-year MS4 Program Plan
and
Registration Statement Supplement**

2009 — 2013

VAR040074

This document comprises Albemarle County’s MS4 Program Plan intended to meet the requirements of its general permit – effective July 9, 2008 – for discharges of stormwater from small municipal separate storm sewer systems (MS4s). Included in this submittal is supplemental information to DCR form 199-148 (permit registration statement) and details of the various program elements the County proposes to implement for each of the stormwater minimum control measures (MEMs).

Supplemental Information to Registration Statement

Note regarding Extent of MS4

The MS4 of Albemarle County has – to date – been only vaguely defined as the 2000 Census Urbanized Area of Charlottesville (subtracting the Charlottesville city limits). We propose that the MS4 be more precisely defined as the designated *development areas*, or urban areas, of the County. The development areas surrounding Charlottesville closely agree with the extent of the census-defined urban area. In addition, the development areas include the town of Crozet and the village of Rivanna (both non-contiguous to the neighborhoods surrounding the city of Charlottesville). The proposed extent of the County MS4 is depicted in Figure 1.

MS4 Receiving Waters

The following tables include the watersheds and impaired surface waters (those listed in the final 2006 305(b)/303(d) Water Quality Assessment Integrated Report) that receive stormwater discharges from the County’s MS4. A map of the MS4, watersheds, and impaired waters is provided as Figure 2.

Watershed Name	HUC_12 (6th Order)	VAHU6
South Fork Rivanna River	020802040203	JR08
North Fork Rivanna River – Jacobs Run	020802040303	JR11
North Fork Rivanna River - Flannigan Branch	020802040305	JR13
Rivanna River - Meadow Creek	020802040401	JR14
Moores Creek	020802040402	JR15
Rivanna River - Carroll Creek	020802040404	JR17
Mechums River – Beaver Creek	020802040102	JR02
Mechums River – Stockton Creek	020802040101	JR01

Impaired Waters	Impairment	MS4 Drainage Area (ac)*	Drainage Area Land Use
Rivanna River North Fork	e. Coli	2,117.1	airport, commercial, residential, open space, forest
Meadow Creek	benthic; fecal coliform	2,486.2	commercial, residential, open space, forest
Rivanna River (above Moores Creek)	benthic, e. Coli	1,925.1	commercial, residential, open space, forest
Moores Creek	fecal coliform	6,965.3	forest, residential, commercial, open space
Rivanna River (below Moores Creek)	benthic	2,108.0	open space, forest, commercial, residential
Beaver Creek	fecal coliform	345.2	commercial, residential, open space, forest
Beaver Creek reservoir	pH	9.8	residential

* the portion of the MS4 discharging to impaired waters (indicated on the map by cross-hatch)

TMDL Wasteload Allocations

There are no wasteload allocations (WLA) presently assigned to Albemarle County's MS4. It is likely that the first WLA will be associated with the Bacteria TMDL being developed for the Rivanna River Mainstem and various contributing streams. County staff have and will continue to participate in the development of the implementation plan associated with this TMDL.

Interconnected MS4s

Albemarle County's MS4 does not discharge into another regulated MS4.

MS4 Program Plan

Minimum Control Measures

In this section, we provide – for each of the six minimum control measures (MCMs) – a description of our existing policies and procedures and recent actions. We then provide a table of the BMPs proposed to meet the most recent program requirements, their objectives and expected results, an implementation schedule (if applicable), and a method used to determine their effectiveness.

Note that Albemarle County has historically implementing a relatively advanced stormwater program – in part, through our original 5-year permit – and that our existing program elements, even though they will be continued, are generally not listed as *proposed enhancements*. For instance, our Water Protection Ordinance – as it exists – satisfactorily meets all the requirements of this permit; therefore, we propose no BMPs pertaining to the development or revision of ordinances. In addition, the implementation timetable for many proposed BMPs is either that the BMP is intended to be fully implemented during the first or second permit years and then continued thereafter or it has already been fully implemented and that it is currently ongoing. In these cases, we did not feel that it was necessary to list out year-by-year actions.

Staff Responsibilities

The following table is a summary of the key County staff responsible for the coordination and implementation of the County's VPDES program elements. Greg Harper serves as the overall coordinator of the permit.

Minimum Control Measure	Primary Staff	
	Name	Title
1. public education and outreach	Greg Harper gharper@albemarle.org 434/296-5816	Water Resources Manager
2. public involvement and participation	Greg Harper	Water Resources Manager
3. illicit discharge detection and elimination	Greg Harper	Water Resources Manager
4. construction site stormwater runoff control	Glenn Brooks gbrooks@albemarle.org 434/296-5832	County Engineer (in the capacity of certified program administrator for E&S control)
5. post-construction stormwater management in new development and redevelopment	Glenn Brooks / Greg Harper	County Engineer / Water Resources Manager
6. pollution prevention / good housekeeping	Sarah Temple stemple@albemarle.org 434/296-5816	Environmental Compliance Manager

The County Executive, the County's principle executive officer, has been and will continue to certify and sign annual reports and other documentation.

MCM #1: Public Education and Outreach

Existing Program

Much of the County's efforts towards educating and involving the public is done through its participation with the Rivanna Regional Stormwater Education Partnership (RRSEP). The RRSEP is a collaborative effort among the local entities in the City of Charlottesville and the surrounding County of Albemarle that hold small MS4 permits under the National Pollutant Discharge Elimination System Program. The RRSEP is dedicated to helping the members achieve the permit requirements related to education, outreach, and public participation in stormwater management.

The permit holders that comprise the RRSEP are Albemarle County, Albemarle County Public Schools, the City of Charlottesville, the Rivanna Water and Sewer Authority, the University of Virginia, and the Virginia Department of Transportation. The Thomas Jefferson Soil and Water Conservation District (TJSWCD) provides support to the partnership and serves as its coordinating body.

Founded in March 2003, the partnership meets a minimum of six times a year to plan and implement stormwater education initiatives and share information about each partner's stormwater programs. Education initiatives are undertaken by the Partnership to help make citizens aware of stormwater issues. Each partner pays a membership fee once a year to help fund projects. In addition, the Partnership has applied for and received grants to supplement education efforts.

Past projects conducted by the partnership include:

- Creation and maintenance of a Stormwater Education **web site** (www.rivanna-stormwater.org) with information about local watersheds, stormwater issues, partnership educational activities, and links to each partner's stormwater program home page.
- **Marking** storm drains with placards warning of the potential for pollution by substances that enter streams and rivers through storm drains. Middle school classes are given a classroom presentation on stormwater issues followed by an outdoor drain-marking exercise. Various other groups have participated.
- Development of a variety of hands-on **lesson plans** for middle school classes on a variety of stormwater-related issues. The materials are available for download from the partnership web site.
- A **vehicle maintenance BMP** education initiative in which every such business in the City of Charlottesville and County of Albemarle was visited by members of the partnership and given literature and a wall poster with BMPs for preventing stormwater pollution commonly generated by this type of business. Businesses were also encouraged to join Businesses for the Bay, a Chesapeake Bay Program encouraging businesses to implement practices that conserve resources and prevent pollution.
- A **rain garden workshop** with indoor presentations on the design, function, and building of rain gardens followed by a hands-on activity in which participants completed the construction of a rain garden managing runoff from a County Office Building roof.

- A **food industry BMP** education initiative to mail a brochure and flyer with BMPs for preventing stormwater pollution commonly generated by this type of business.
- Small business **vehicle washing** education initiative to provide a brochure and flyer for BMPs related to washing vehicles in parking lots and other places where wash water can enter a storm drain.
- A **general education campaign** – and subsequent press coverage – directed to the public through newspaper ads, movie theater ads, and newspaper websites based on visually-striking graphics developed by the Washington Department of Ecology.

The RRSEP has resulted in effective and far-reaching education programs that have benefited from the variety of expertise and resources each partner offers. Planning and implementing education initiatives through the partnership has resulted in focused projects and has avoided the over-exposure and redundancy that might result if each partner were carrying out projects on their own.

In addition to the County’s participation with the various education initiatives implemented by the RRSEP, Albemarle County continues – independently – to seize education opportunities whenever possible. Recent examples include:

- annual press releases and interviews with local media in conjunction with the release of stream health reports from StreamWatch (<http://streamwatch.org/>)
- ongoing tours (approximately 20 per year) of the County’s greenroof and other low impact development demonstration BMPs
- presentations at the Rivanna Conservation Society’s brown bag lecture series
- presentations to homeowners groups
- presentation as part of Master Naturalist training program
- continuation of County water resources web page (www.albemarle.org/water)

Proposed Program Enhancements

proposed BMP	objective and expected results	implementation schedule, including milestones	method to determine effectiveness
– as partner of RRSEP			
meet as a group at least 6 times per year	discuss issues, share ideas, and develop new initiatives	ongoing	record of meetings (minutes)
provide general stormwater pollution prevention awareness to the public through various media with particular focus on minorities, disadvantaged audiences, and minors ...	continue to reach new audiences with general messages; reduce discharges of pollutants due to everyday activities	continue existing education efforts with a focus on at least 1 unique audience per year	develop and refine mechanism(s) to gauge public awareness (i.e., web hits, survey); implementation of audience-specific endeavor

... and with a priority on reducing impacts to impaired waters and addressing local pollutants of concern	give special attention to impaired waters; increase likelihood of delisting	year 1: determine appropriateness of special effort to focus on impaired waters years 2 - 5: if deemed appropriate, incorporate impairment-specific messages into overall education campaigns	documentation of the implementation of impairment-specific messages
whenever possible, incorporate messages related to the prohibition of illegal discharges and proper disposal of waste (including pertinent legal implications) into greater outreach campaigns	reduce inadvertent and deliberate illicit discharges	ongoing	documentation of the implementation of IDDE messages
implement or participate in at least one major activity or event per year (such as a workshop, tour, or speakers bureau)	create opportunity for public education	one major event per year	documentation of event
continue to do targeted education campaigns for industrial, commercial, and institutional entities likely to have significant stormwater impacts	give special attention to potential major sources of pollutants	at least one group every two years	documentation of the implementation of targeted campaigns
maintain the RRSEP website and track the number of hits	make information available to the public	ongoing	documentation of maintenance and web site visitor statistics
– independently			
develop and refine various brochures and fact sheets; make these available at County Office Building and online; distribute at appropriate events	inform public about specific issues, projects, or actions	continued and ongoing	availability of brochures
develop and install educational signs at major capital projects	enhance public education at locations of projects	complete within six-months of completion of project	documentation of signage
give tours of demonstration BMPs (including green roof) located at County Office Building and other County properties	use BMPs to enhance public understanding and demonstrate feasibility and effectiveness	continued and ongoing	documentation of number of visitors
utilize local news media to the extent possible to promote and cover events, projects, milestones, and other initiatives	maximize reach of education	continued and ongoing	documentation of media coverage
maintain County website	make information available to the public	continued and ongoing	documentation of website maintenance

– through contract with TJSWCD			
work with schools to develop and implement teacher and student stormwater and watershed education	provide K-12 learning opportunities	continued and ongoing	documentation of education programs
implement storm drain placard installation program	provide youth learning opportunities	continued and ongoing	documentation of installation
provide specific outreach and education to HOAs and other owners of private BMPs regarding maintenance responsibility	use BMP maintenance requirements as opportunity to educate property owners	continued and ongoing	documentation of presentations and other communications

Resources

- websites:
 - Albemarle County (www.albemarle.org/water)
 - RRSEP (www.rivanna-stormwater.org)
 - StreamWatch (<http://streamwatch.org/>)
- Contract for services between County and TJSWCD

MCM #2: Public Involvement and Participation

Existing Program

Albemarle County generally strives to involve the public to the extent practical through public notices, press releases, online information, public meetings, community boards and commissions, and various ways to allow and encourage feedback. We provide an abundance of information pertaining to the stormwater program online, including the following:

- [Comprehensive Plan – Water Resources](#)
- [Water Protection Ordinance](#)
- [Design Standards Manual](#)
- various [GIS information](#)

In addition, all proposed changes to ordinances or policies and all actions related to special use permits, subdivision, and site plans are advertized, available online for review, and open to comments during public hearings.

The County regularly participates in various local events in which there is either a focus on water resources health and protection or there is at least an opportunity to incorporate water-related messages into the greater event. Recent activities include:

- annual County day for kids
- 7th grade career expo at University of Virginia
- participation during annual Charlottesville EcoFair (Earth Day)

Proposed Program Enhancements

proposed BMP	objective and expected results	implementation schedule, including milestones	method to determine effectiveness
– as partner of RRSEP			
participate in and encourage public participation in local water quality improvement initiatives, including: <ul style="list-style-type: none"> • stream clean-ups (such as that sponsored by RCS) and other activities conducive to public participation • activities associated with capital projects implemented by partners • the technical advisory committees of organizations 	create opportunities for public participation	a minimum of one major event per year; regular participation on TACs	record of participation
– independently			
announce, on the County’s website (main page), the occurrence of all significant updates to the MS4 permit, such as this draft Program Plan	improving public’s access to information and ability to speak out	immediately upon completion of plans, reports, etc.	record of public notices or press releases

on the County's website (water resources), provide information about and links to the latest registration statement, Program Plan, and annual reports	(same as above)	year 1: establish location and format on website; update as needed	presence of documents on website
provide contact information for key staff associated with each MCM	(same as above)	in conjunction with above	presence of information on website
make available printed versions of above documents	(same as above)	as requested	record of information requests
participate in events as a sponsor, partner, or participant; possible events include: County Open House, Charlottesville Eco-Fair (Earth Day), Rivanna Conservation Society stream cleanups, green-themed events, youth watershed summit	enhance public's exposure to County activities and access to County staff	have presence at 3 events per year	meeting minimum number of events

Resources

- Albemarle County website (www.albemarle.org/)
- Contract for services between County and TJSWCD

MCM #3: Illicit discharge detection and elimination

Existing Program

Albemarle County adopted an illicit discharge detection and elimination (IDDE) ordinance in February 2007 – part of the Water Protection Ordinance – prohibiting illicit discharges to any storm sewer system (either public or private) and all channels and streams within the entire County. Subsequently, County staff have been able to better respond to incidents of alleged illicit discharges and dumping.

County Water Resources staff work with the Environmental Crimes staff of the Albemarle County Fire and Rescue Department. Any emergencies and more serious alleged offences are handled by this group.

County staff typically receive less than 10 phone calls or email messages per year from citizens observing what they believe are illegal activities that are prohibited by the ordinance. Staff respond by investigating the complaint and contacting and educating any violators, if the person, or (often) business, can be identified. To our knowledge, only minor, often unconfirmed, violations have taken place. Violators, when contacted, are usually not aware that the activity is prohibited and do not realize their actions can have a negative impact on the environment.

In addition to adopting an ordinance and responding to complaints and observations, the County has initiated a program to actively search for illicit discharge problems in the field and to map storm sewer outfall locations for future inspections. This has been done, for the last 2 years, by an employee of the TJSWCD under a contract with the County. Although all of the County’s urban streams have been inspected, these ongoing investigations have, so far, not revealed any apparent illicit discharges or connections.

Proposed Program Enhancements

proposed BMP	objective and expected results	implementation schedule, including milestones	method to determine effectiveness
develop and maintain map of stormwater infrastructure <ul style="list-style-type: none"> • locate discharge points • locate stormwater management facilities • to the extent possible, map conveyance infrastructure (both points and lines) 	create efficient system of collecting and storing data; facilitate IDDE inspections	<i>year 1:</i> complete locating discharge points and SMF locations <i>years 1-5:</i> map conveyance infrastructure (as information is located)	completion of mapping
perform periodic inspection of outfalls and storm sewer system for signs of illicit discharges and connections	reduce possibility of illicit discharges or connections	<i>bi-annually:</i> perform inspection throughout MS4	documentation and reporting of inspections
develop, implement, and refine procedures for addressing known or suspected illicit discharges and connections	improve program implementation	ongoing	documentation of standard operating procedures (SOPs)
maintain mapping and inspection information in GIS	facilitate implementation and reporting	ongoing	completion of mapping

Resources

- Water Protection Ordinance, Chapter 17, Article V (Illicit Discharges and Connections)
- Albemarle County website (www.albemarle.org/)
- Contract for services between County and TJSWCD

MCM #4: Construction site runoff control

Existing Program

The County currently implements construction site runoff control through enforcement of its Water Protection Ordinance 1) under authority of the Virginia Stormwater Management Act and the Chesapeake Bay Preservation Act and through use of the Virginia Stormwater Management Handbook as design guidance and 2) under authority of the Virginia Erosion and Sediment Control Law and through use of the Virginia Erosion and Sediment Control Handbook as design guidance. Plans are reviewed by certified engineering reviewers and sites are inspected by trained E&S and engineering inspectors for compliance with applicable requirements. There are procedures in place, including fines and stop-work orders, to enforce compliance.

The County requires a bond from developers to ensure compliance with erosion and sediments control during construction. The bond is released upon completion of construction and sufficient ground stabilization.

The County has a formal process to respond to citizen complaints. There is a standard procedure to document a call, assign a number to it, inspect the site, address the complaint, and respond to the citizen. The County also uses an erosion and sediment control "screening form", filled out by responsible parties, to make determinations on code compliance in response to complaints or where certain exemptions (e.g., agriculture) may apply.

The erosion and sediment control program is implemented by an E&S control officer and three E&S inspectors, several certified plan reviewers, and the County engineer acting as the certified E&S program administer.

The County is currently developing a database (see the next section for a more detailed description) that will include tracking various data associated with project review and construction inspections. This will enable the County to more accurately track and report required statistics to the DCR.

The County intends to implement the new technical criteria – regarding the control of runoff *volume* – currently being proposed by DCR.

Proposed Program Enhancements

proposed BMP	objective and expected results	implementation schedule, including milestones	method to determine effectiveness
encourage E&S control designs that have the goal of maintaining or replicating pre-development runoff characteristics and site hydrology	enhance E&S control and protection of downstream water resources	<i>year 1</i> : consider applicability and feasibility of stated goal <i>year 2</i> : if feasible, determine most appropriate means of implementing <i>year 3</i> : implement	if implemented, qualitatively assess program, designs, and construction sites during overall MS4 program evaluation

require construction site owners and operators to secure a VSMP permit for construction activities	reduce possibility of land-disturbing activities being done without proper state permitting	<i>year 1</i> : require proof of VSMP permit prior to issuance of County permit	implementation of requirement
enhance procedures for receipt and consideration of public input (hotline/website)	improve capacity to address questions and potential issues	<i>year 1</i> : determine most appropriate means <i>year 2</i> : implement	implementation and degree of use by public
periodically review site inspection and enforcement procedures and augment, as needed	ensure that procedures are appropriately effective	ongoing and as part of overall MS4 program evaluation	results of MS4 program evaluation
ensure that County staff obtain and maintain required certificates	maintain proper training and skill level of staff	annually review	annually report certificates and staff training
enhance, as needed, the tracking and reporting of required information	modernize the system of managing inspection data and make it easier to report	<i>year 1</i> : determine most appropriate means <i>year 2</i> : implement <i>years 3+</i> : assess	type of tracking and reporting system used

Resources

- Water Protection Ordinance, Chapter 17, Article II (Erosion and Sediment Control)
- Design Standards Manual, Section 3, and checklists
- Water Protection Application

MCM #5: Post-construction stormwater management

Existing Program

The County currently imposes stormwater management requirements on developing properties through implementation of its Water Protection Ordinance under authority of the Virginia Stormwater Management Act and the Chesapeake Bay Preservation Act and through use of the Virginia Stormwater Management Handbook as design guidance. Plan reviews address site grading, stormwater management, and soil and erosion control. The County requires a bond from developers to ensure compliance with the construction of stormwater management features. The bond is released 60 days after completion of the construction of permanent BMPs.

The ordinance requires no increase in the 2- and 10-year peak flow rates, water quality BMPs, protection of downstream channels, and designation and protection of stream buffers, generally 100 feet from the edge of designated stream channels. In addition to structural stormwater BMPs, the County encourages the use of non-structural BMPs including reducing impervious surfaces, protection of stream buffers through easements, additional forest cover protection, and other features.

The County requires owners of stormwater management facilities to provide regular maintenance of the facilities. This is accomplished through 1) a maintenance agreement and 2) periodic County inspections. Since 1995, owners have been required to submit signed maintenance agreements to the County prior to issuance of a development permit. To ensure that facilities are properly maintained by private owners, a County inspection program has been developed over the last several years. A County inspector will inspect a facility and then provide the owner with a letter describing any necessary or recommended maintenance activities. The inspector is often asked to provide assistance to owners in meeting these requirements. After maintenance is complete, a re-inspection will be done.

After completing an initial inspection of all privately-owned (approximately 500) facilities located within the County, staff will determine a reasonable interval for future inspections. This will likely depend on the type of facility: for instance, while bio-filters and underground systems might be inspected at least annually, dry detention basins might be inspected only once every three years.

A database, currently nearing design completion, will enhance the permit review process, construction inspections, and, especially, operation inspections of stormwater management facilities. The database will be linked to – and become part of – an existing database (CityView) that is already used in multiple County processes. A particularly helpful feature of the database, important for both inspection scheduling and reporting, will be the tracking of the status of each facility. For instance, staff will be able to observe, both geographically or in tables, all facilities that are due or overdue for inspections. Many reporting features will be incorporated into the database.

The County has recently completed a revision of its design standards manual (DSM). Changes to the manual were done to resolve minor inconsistencies with the Virginia Stormwater Management Handbook such as the standard requirement for including forebays on most structural BMP designs, to add clarity local enforcement of the state's MS-19 rules, and to simply streamline the document.

A stream assessment, covering the urbanized areas of the County and completed in 2004, identifies problems along stream corridors such as eroding banks, poor buffer vegetation, and dumped trash and debris. When developers apply for rezonings or special use permits, planners use the assessment to negotiate proffers from the developers to clean up, repair, or make enhancements to the identified problem.

The County intends to implement the new technical criteria – regarding the control of runoff *volume* – currently being proposed by DCR.

Proposed Program Enhancements

proposed BMP	objective and expected results	implementation schedule, including milestones	method to determine effectiveness
encourage the use of structural and non-structural design techniques that have the goal of maintaining or replicating pre-development runoff characteristics and site hydrology	enhance stormwater management and protection of downstream water resources	<i>year 1</i> : consider applicability and feasibility of stated goal <i>year 2</i> : if feasible, determine most appropriate means of implementing <i>year 3</i> : implement	if implemented, qualitatively assess program, designs, and developed sites during overall MS4 program evaluation
require owners of permanent stormwater management facilities to develop a recorded inspection schedule	ensure proper maintenance of BMPs	<i>year 1</i> : determine feasibility and best approach to meet intent of stated goal <i>year 2</i> : if feasible, develop procedure <i>year 3</i> : implement	implementation of procedure by County and level of participation by owners
ensure that site inspection and enforcement measures are consistent with the Virginia Stormwater Management Act and attendant regulations	consistency with state rules	ongoing and as part of overall MS4 program evaluation	results of MS4 program evaluation

Resources

- Water Protection Ordinance, Chapter 17, Article III (Stormwater Management and Water Quality)
- Design Standards Manual, Section 5, and design checklists
- Water Protection Application

MCM #6: Pollution prevention and good housekeeping

Existing Program

Since 2004 the County has been implementing an ISO 14001-based Environmental Management System (EMS), including both local government and school division operations. As appropriate, initiatives specifically related to stormwater and water quality have been and will continue to be identified and pursued as part of this system. The EMS is based on our *Environmental Management Policy*, which commits the County to environmental compliance, pollution prevention, and continual environmental improvement. As part of the EMS, pollution prevention opportunities are identified, employees are trained in both the EMS and good housekeeping practices, and goals are set and tracked to pursue those opportunities.

Proposed Program Enhancements

proposed BMP	objective and expected results	implementation schedule, including milestones	method to determine effectiveness
environmental management system (EMS) implementation	ensure continual environmental improvement in day-to-day operations	ongoing	there will be periodic internal EMS audits performed
provide periodic pollution prevention training to applicable County staff	train employees on pollution prevention practices, including good housekeeping	ongoing	number and names of employees attending training will be kept; responses to any reported spills or leaks will be recorded and assessed for effectiveness

Resources

- Environmental Management System (EMS) Manual, April 2008
- Environmental Management Policy
- Albemarle County website (www.albemarle.org/environment)

Program Assessment and Evaluation

Albemarle County will annually assess and report program compliance and progress towards achieving identified measurable goals. In addition, we intend to do a formal program assessment – using EPA’s *Municipal Stormwater Program Evaluation Guidance* – at least once during the 5-year permit cycle.

Attachments:

- A. Map of overall County MS4 (Figure 1)
- B. Map indicating MS4, watersheds, and impaired waters (Figure 2)
- C. [Water Protection Ordinance](#)
- D. [Design Standards Manual](#), Sections 3 and 5, and design checklists
- E. [Water Protection Application](#)
- F. [BMP Maintenance Agreement](#)
- G. [BMP Maintenance Agreement Procedures](#)
- H. [Environmental Management System \(EMS\) Manual](#), April 2008
- I. Environmental Management Policy
- J. Contract for services between County and TJSWCD

Albemarle County MS4

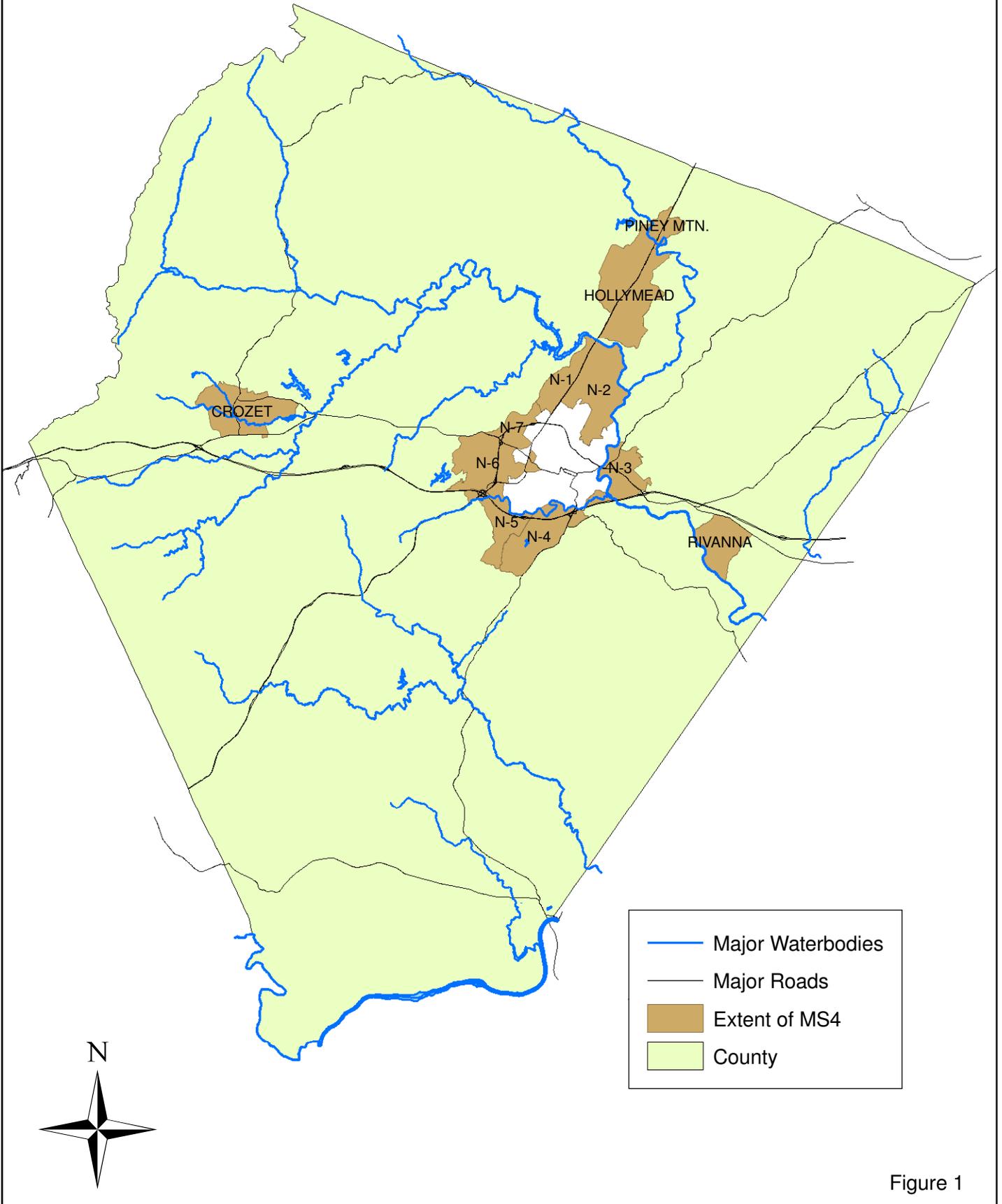


Figure 1

Albemarle County MS4

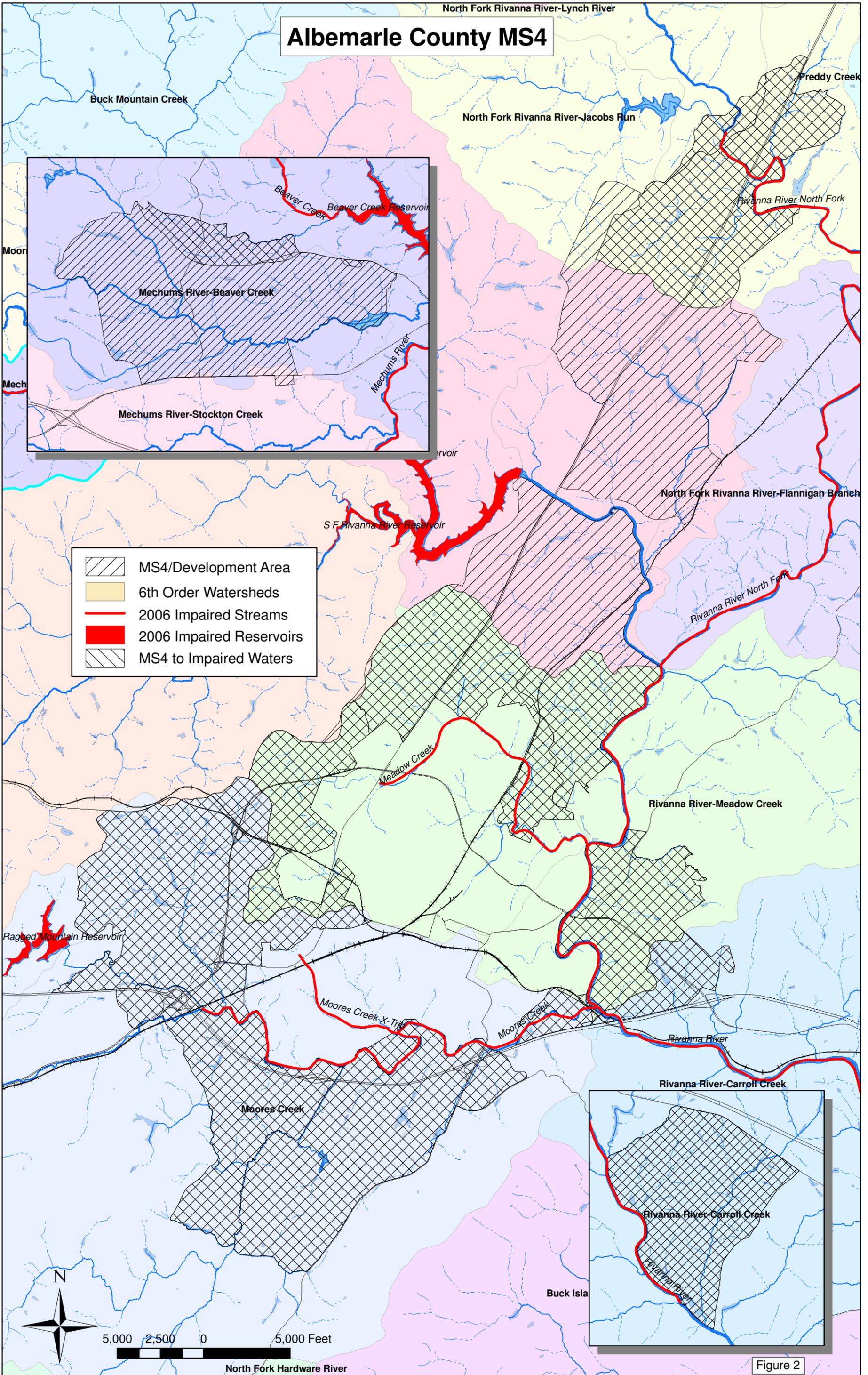


Figure 2