

BOARD OF SUPERVISORS

W. CANOVA PETERSON- CHAIRMAN
MECHANICSVILLE DISTRICT

SEAN M. DAVIS-VICE-CHAIRMAN
HENRY DISTRICT

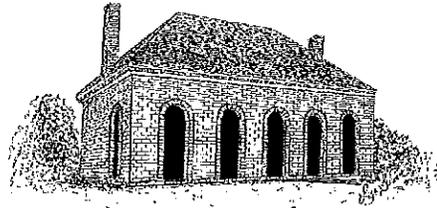
WAYNE T. HAZZARD
SOUTH ANNA DISTRICT

ANGELA KELLY-WIECEK
CHICKAHOMINY DISTRICT

AUBREY M. STANLEY
BEAVERDAM DISTRICT

G. E. "ED" VIA, III
ASHLAND DISTRICT

ELTON J. WADE, SR.
COLD HARBOR DISTRICT



HANOVER COURTHOUSE

HANOVER COUNTY

ESTABLISHED IN 1720

March 20, 2013

DEPARTMENT OF PUBLIC WORKS

J. MICHAEL FLAGG, P.E., DIRECTOR
CHARLES B. ENGLAND, P.E., DEPUTY DIRECTOR

P.O. BOX 470
7516 COUNTY COMPLEX ROAD

HANOVER, VIRGINIA 23069
PHONE: 804-365-6181

FAX: 804-365-6233
WWW.CO.HANOVER.VA.US

CECIL R. HARRIS, JR.
COUNTY ADMINISTRATOR

FRANK W. HARKSEN, JR.
DEPUTY COUNTY ADMINISTRATOR

Department of Conservation and Recreation, MS4 Registration
900 East Main Street, 8th Floor, Pocahontas Building
Richmond, VA 23219-3558

Re: Registration Hanover County MS4 (VAR040012)

Please find enclosed a copy of the registration statement and a copy of the currently implemented MS4 program plan for Hanover County (VAR040012). If you have any questions, please feel free to call me at (804) 365-6237.

Sincerely,

Michael J. Dieter, P.E.
Civil Engineer III
Department of Public Works

Attachment



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: Hanover County - Municipal Separate Storm Sewer System

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): Urbanized area - Hanover County, VA

2. Regulated Small MS4 Operator

Name: Hanover County

Address: P.O. Box 470

City: Hanover State: VA Zip: 23229

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:

JL17 - Chickahominy River - Stony Run, JL19 -- Chickahominy River - Powwhite Creek, YO11 - South Anna River - Cedar Creek, YO27 - Pamunkey River-Mechumps Creek, YO28 - Crump Creek, YO30 - Totopotomoy Creek

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. (Attachment 1)

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>): In the Chickahominy River Bacterial TMDL approved on 9/19/2012, a combined waste load allocation was provided to the Hanover County MS4 (VAR040012), along with the MS4s for the Town of Ashland and VDOT. Waste load allocations are provided in Tables 5.6 and 5.8 of the TMDL (Attachment 2)

6. The name(s) of any regulated physically interconnected MS4s to which the regulated small MS4 discharges. Town of Ashland MS4 Permit#VAR040011, Virginia Department of Transportation MS4 Permit #VA040115

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 (A copy of the County's Current MS4 program plan signed 12/17/2008 is provided in Attachment 3)

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.

Memorandum of Understanding, Hanover Caroline Soil and Water Conservation District, Nov. 19, 1992

Memorandum of Understanding, Hanover County School Board, May 30, 2011

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.

Frank W. Harksen, Jr., Deputy County Administrator

P.O. Box 470, Hanover, VA 23069

804-365-6005 fwharksen@hanovercounty.gov

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

J. Michael Flagg, Director of Public Works

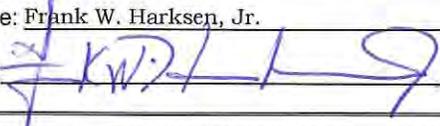
P.O. Box 470, Hanover, Va 23069

804-365-6179 jmflagg@hanovercounty.gov

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: Frank W. Harksen, Jr.

Title: Deputy County Administrator

Signature: 

Date: 3-19-2013

For Department of Conservation and Recreation Use Only

Accepted/Not Accepted by: _____ Date: _____

Basin _____ Stream Class _____ Section _____ Special Standards _____

INSTRUCTIONS for FORM DCR 199-148

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

WHO MUST FILE THE REGISTRATION STATEMENT

This registration statement must be completed and submitted by any regulated small MS4 requesting coverage under the above general permit for stormwater discharges.

1. Operators are regulated if they operate a small MS4, including but not limited to systems operated by federal, state, and local governments, including the Virginia Department of Transportation; and:
 - a. The small MS4 is located in an urbanized area as determined by the latest Decennial Census by the Census Bureau. If the small MS4 is not located entirely within an urbanized area, only the portion that is within the urbanized area is regulated; or
 - b. The small MS4 is designated by the Board.
2. An MS4 may be the subject of a petition to the Board to require a VSMF permit for their discharge of stormwater. If the Board determines that an MS4 needs a permit, the owner may use this registration statement to apply for coverage under the above general permit.

WHERE TO FILE THE REGISTRATION STATEMENT

The completed registration statement (with all attachments), a copy of the fee form and a copy of your check should be sent to the DCR's Stormwater Permitting Section in the Division of Soil and Water Conservation. The original fee form, application fee (as specified by Form DCR 199-145), and a copy of the registration statement (without attachments) should be sent to the DCR's Division of Finance, Accounts Payable at the address given on the fee form.

COMPLETENESS

Complete all items except where indicated in order for your registration statement to be accepted. Attach separate sheets of paper for Item 4 (Impaired Waters Information) and Item 7 (MS4 Program Plan).

DEFINITIONS

"Best management practice (BMP)" means schedules of activities, prohibitions of practices, including both a structural or nonstructural practice, maintenance procedures, and other management practices to prevent or reduce the pollution of surface waters and groundwater systems from the impacts of land-disturbing activities. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

"Operator" means the owner or operator of any facility or activity subject to regulation under the VSMF program.

"Small MS4" means all separate storm sewers that are: (1) Owned or operated by the United States, a state, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to state law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under state law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under subsection 208 of the CWA that discharges to surface waters; and (2) Not defined as "large" or "medium" municipal separate storm sewer systems, or designated under 4 VAC50-60-380 A 1. This term includes systems similar to separate storm sewer systems in municipalities, such as systems at military bases, large hospital or prison complexes, and highways and other thoroughfares. The term does not include separate storm sewers in very discrete areas, such as individual buildings.

LINE BY LINE INSTRUCTIONS

Item 1. Regulated Small MS4

Provide the name of the regulated small MS4.
Check the appropriate type of regulated small MS4

(DCR 199-148) (07/08)

Provide the location (county name or city name) where the small MS4 is located.

Item 2. Regulated Small MS4 Operator

Provide the name of the operator of the regulated small MS4.
Provide the small MS4 operator's address.
Provide the small MS4 operator's city, state and zip code.

Item 3. Receiving Waters

Provide the Hydrologic Unit Codes 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. An interactive map is available on-line at
http://www.dcr.virginia.gov/soil_&_water/hu.shtml

Item 4. Impaired Waters Information

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.

Item 5. TMDL Waste Load Allocations

Provide 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>.

Item 6. Discharges to Physically Interconnected MS4s

List the name(s) of any regulated physically interconnected MS4s to which the regulated small MS4 discharges.

Item 7. MS4 Program Plan

Attach 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.

Item 8. Signed Third Party Agreements

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.

Item 9. Principal Executive Officer or Ranking Elected Official

Provide 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.

10. Duly Authorized Representative

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

Item 11. Certification

State law provides for severe penalties for submitting false information on this Registration Statement. State regulations require this Registration Statement to be signed as follows:

(1) For a corporation: by a responsible corporate officer. For the purpose of this subsection, a responsible corporate officer means:

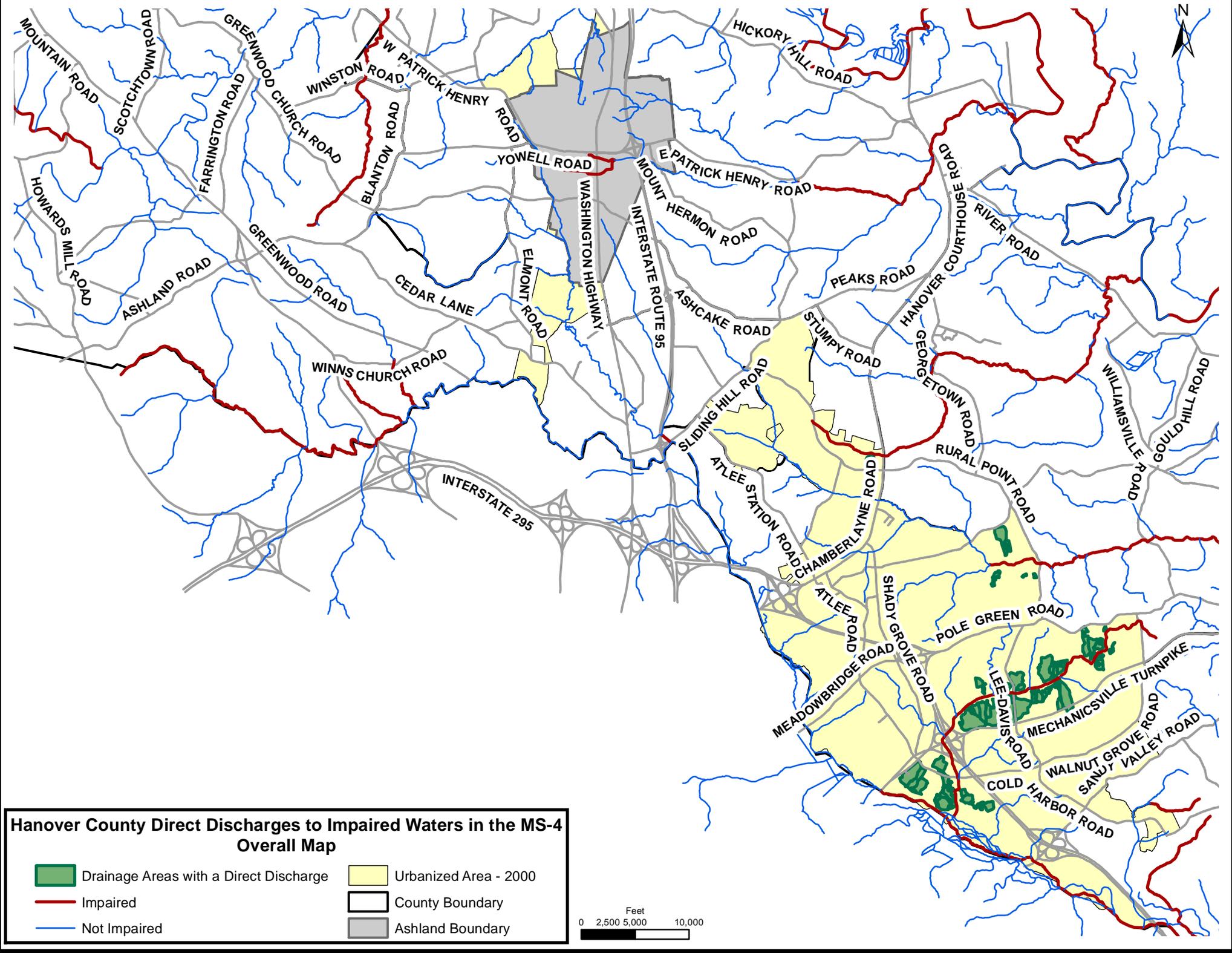
- (a) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or
- (b) the manager of one or more manufacturing, production, or operating facilities, provided the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

(2) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

(3) For a municipality, state, federal, or other public agency: By either a principal executive officer or ranking elected official. For purposes of this subsection, a principal executive officer of a public agency includes:

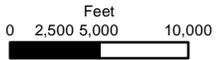
- (a) The chief executive officer of the agency, or
- (b) A senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.

Attachment 1
Drainage Area to Impaired Waters



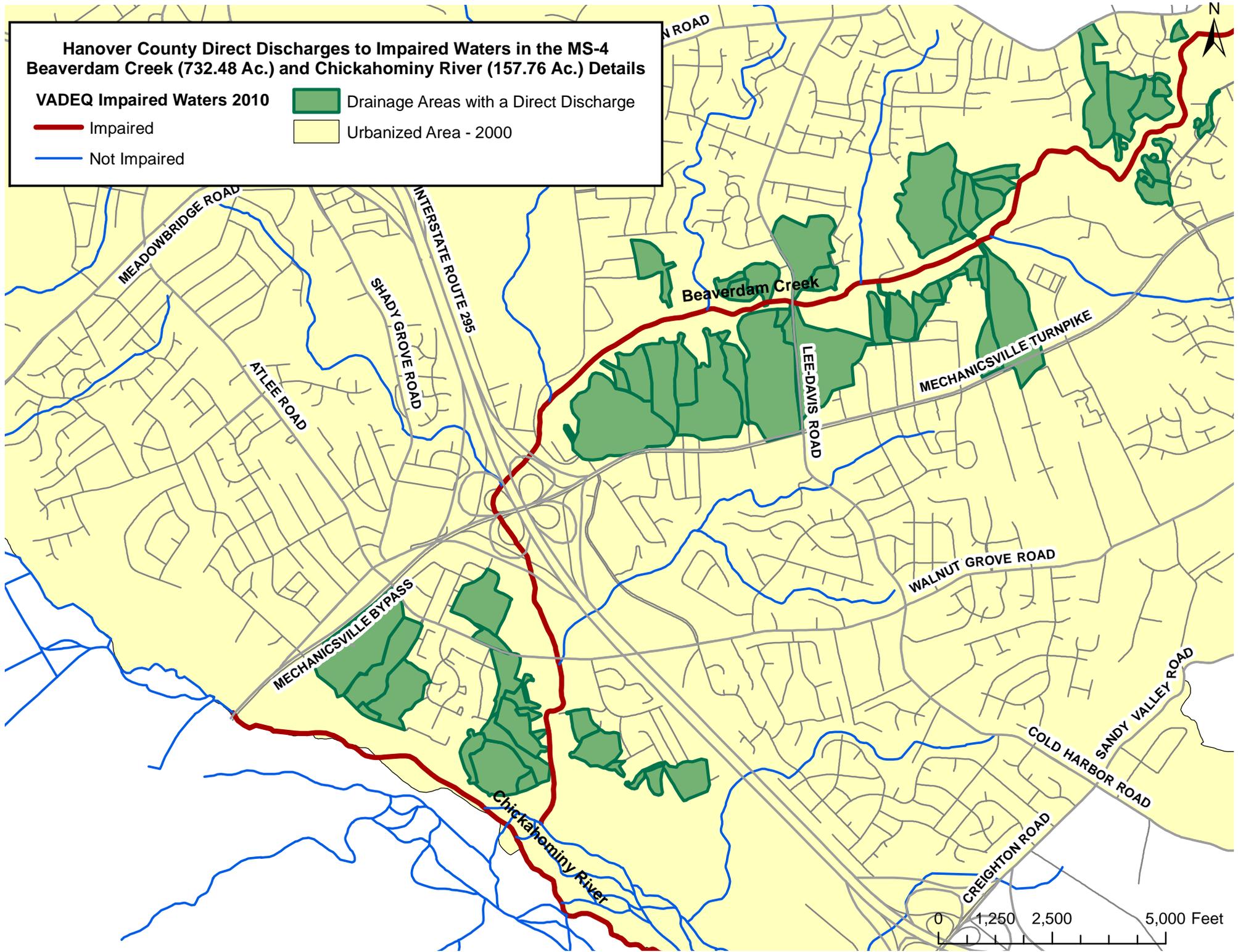
Hanover County Direct Discharges to Impaired Waters in the MS-4 Overall Map

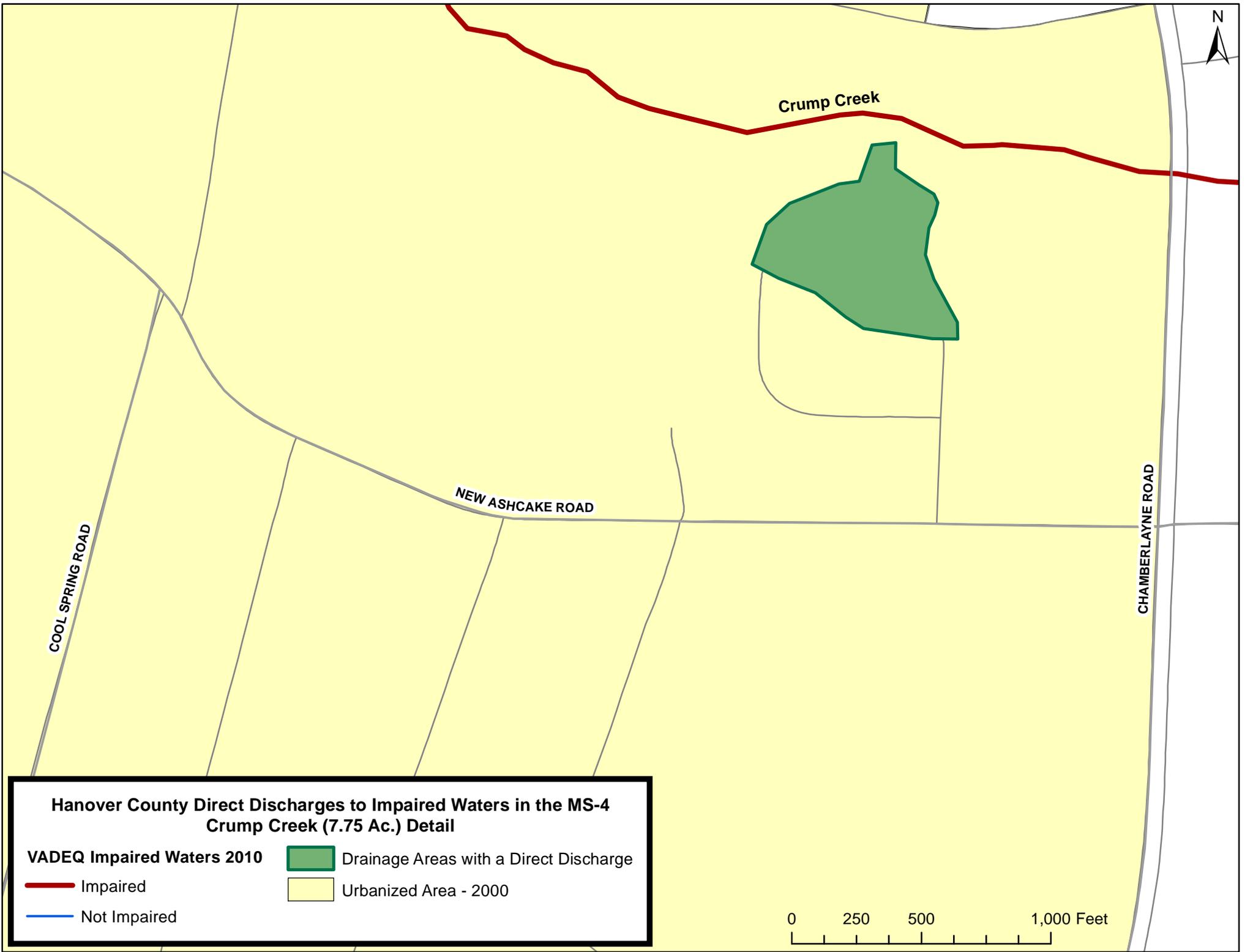
- Drainage Areas with a Direct Discharge
- Urbanized Area - 2000
- County Boundary
- Ashland Boundary
- Not Impaired



**Hanover County Direct Discharges to Impaired Waters in the MS-4
Beaverdam Creek (732.48 Ac.) and Chickahominy River (157.76 Ac.) Details**

- VADEQ Impaired Waters 2010**
- Impaired
 - Not Impaired
- Drainage Areas with a Direct Discharge**
- Urbanized Area - 2000



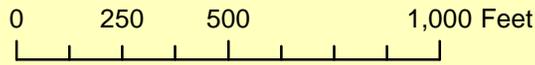


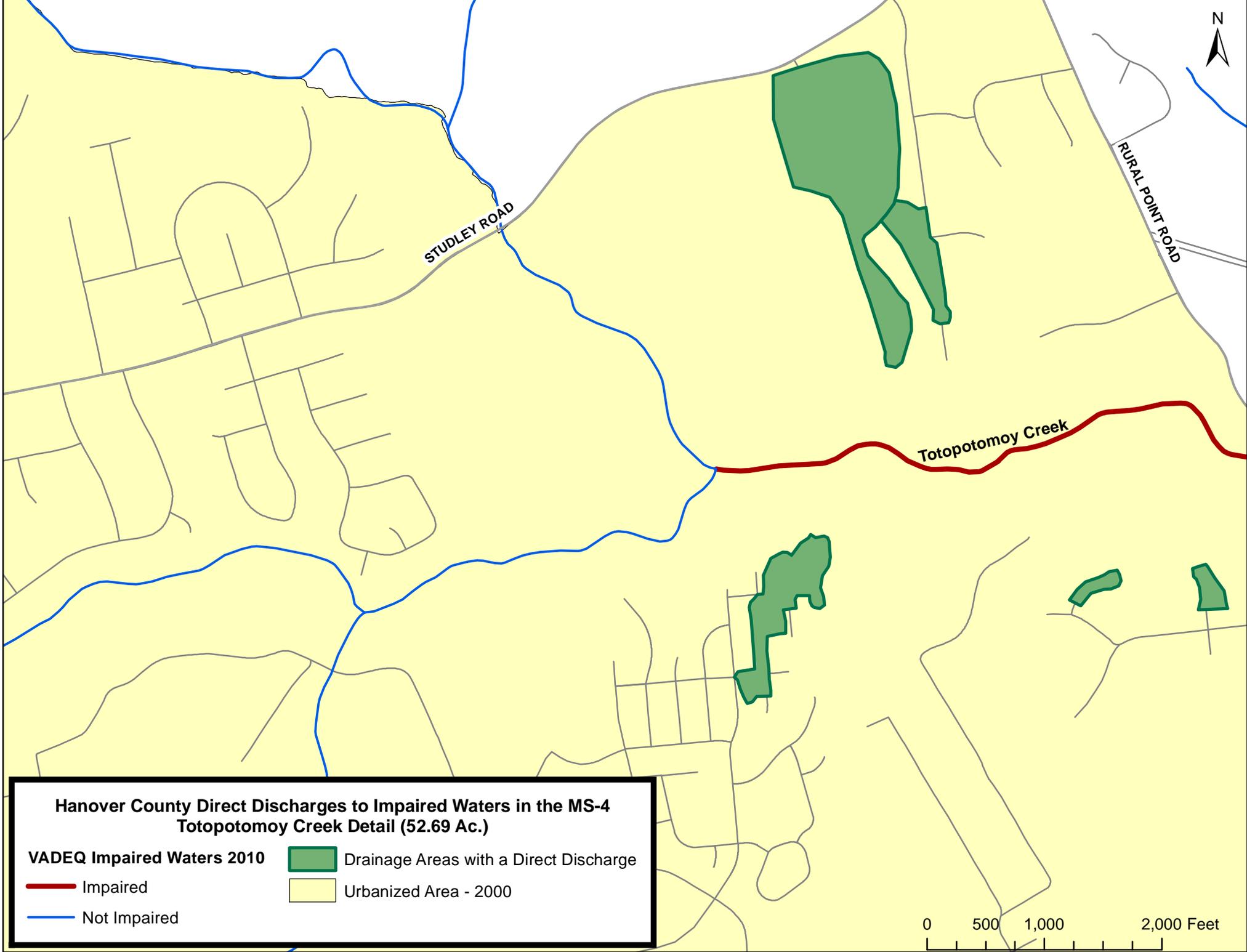
**Hanover County Direct Discharges to Impaired Waters in the MS-4
Crump Creek (7.75 Ac.) Detail**

VADEQ Impaired Waters 2010

-  Impaired
-  Not Impaired

-  Drainage Areas with a Direct Discharge
-  Urbanized Area - 2000





Attachment 2
TMDL Waste Load Allocations

Table 5.6 Final annual in-stream *E. coli* bacterial loads (cfu/year) modeled after TMDL allocation at the outlet of subwatershed 1 (entire study area) on the Chickahominy River.

Impairment	WLA ¹ (cfu/yr)	LA (cfu/yr)	MOS	TMDL (cfu/yr)
Chickahominy River at Subwatershed 1 outlet	2.41E+12	5.66E+12		8.07E+12
<i>Tyson Foods (VA0004031)</i>	2.18E+12			
<i>J. Sargeant Reynolds Community College MS4(VAR040107)</i>	3.50E+08			
<i>MS4 Henrico County (VA0088617)</i> <i>MS4 VDOT in Henrico County</i>	} ² 1.04E+11		<i>Implicit</i>	
<i>MS4 Hanover County (VAR040012)</i> <i>MS4 Town of Ashland (VAR040011)</i> <i>MS4 VDOT in Hanover County</i>		} ² 3.43E+10		
<i>MS4 Richmond City (VAR040005)</i> <i>MS4 VDOT in Richmond City</i>	} ² 1.26E+10			
<i>VPG100026</i> ³				0
<i>Future Load</i>		8.07E+10		

¹The WLA reflects an allocation for potential future permits issued for bacteria control. Any issued permit will include bacteria effluent limits in accordance with applicable permit guidance and will ensure that the discharge meets the applicable numeric water quality criteria for bacteria at the end-of-pipe.

² Each of the municipality MS4 loads has been aggregated with a portion of the adjacent VDOT MS4 load, due to the continuity of the system. For MS4/VSMP permits, the permittee may address the TMDL WLAs for stormwater through the iterative implementation of programmatic BMPs.

³ WLA should not be interpreted as a permit limit. Rather, it indicates that this facility is not assigned a WLA in the TMDL because its permit does not include a limit for bacteria.

Starting in 2007, the USEPA has mandated that TMDL studies include a daily load as well as the average annual load previously shown. The approach to developing a daily maximum load was similar to the USEPA approved approach to developing load duration bacterial TMDLs. The daily average in-stream loads at the same locations shown in **Table 5.5** and **Table 5.6** of the Chickahominy River are shown in **Table 5.7** and **Table 5.8**. The daily TMDL was calculated using the 99th percentile daily flow condition during the allocation time period at the numeric water quality criterion of 235 cfu/100ml.

Table 5.8 Final daily in-stream *E. coli* bacterial loads (cfu/day) modeled after TMDL allocation at the outlet of subwatershed 1 (entire study area) on the Chickahominy River.

Impairment	WLA ¹ (cfu/yr)	LA (cfu/yr)	MOS	TMDL (cfu/yr)
Chickahominy River	6.60E+09	1.26E+13		1.26E+13
<i>Tyson Foods (VA0004031)</i>	5.96E+09			
<i>J. Sargeant Reynolds Community College MS4(VAR040107)</i>	9.5E+05			
<i>MS4 Henrico County (VA0088617)</i> <i>MS4 VDOT in Henrico County</i> } ²	2.85E+08			<i>Implicit</i>
<i>MS4 Hanover County (VAR040012)</i> <i>MS4 Town of Ashland (VAR040011)</i> <i>MS4 VDOT in Hanover County</i> } ²	9.38E+07			
<i>MS4 Richmond City (VAR040005)</i> <i>MS4 VDOT in Richmond City</i> } ²	3.45E+07			
<i>VPGI00026</i> ³	0			
<i>Future Load</i>	2.21E+08			

¹The WLA reflects an allocation for potential future permits issued for bacteria control. Any issued permit will include bacteria effluent limits in accordance with applicable permit guidance and will ensure that the discharge meets the applicable numeric water quality criteria for bacteria at the end-of-pipe.

²The TMDL is presented for the 99th percentile daily flow condition at the numeric water quality criterion of 235 cfu/100ml. The TMDL is variable depending on flow conditions. The numeric water quality criterion will be used to assess progress toward TMDL goals.

³WLA should not be interpreted as a permit limit. Rather, it indicates that this facility is not assigned a WLA in the TMDL because its permit does not include a limit for bacteria.

Attachment 3
Previous Program Plan



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: Hanover County - Municipal Separate Storm Sewer System

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): Urbanized Area - Hanover County, VA per Census 2000

2. Regulated Small MS4 Operator

Name: Hanover County

Address: P.O. Box 470

City: Hanover State: VA Zip: 23069

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 attachment for part 3

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.

See attachment for part 4

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>):

See attachment for part 5

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.
See attachment for part 7

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.

MOU Hanover Caroline Soil and Water Conservation District

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.

John H. Hodges, Deputy County Administrator

P.O. Box 470, Hanover, VA 23069

804-365-6005 jhodges@co.hanover.va.us

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

J. Michael Flagg, Director of Public Works

P.O. Box 470, Hanover, VA 23069

804-365-6179 jmflagg@co.hanover.va.

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: John H. Hodges

Title: Deputy County Administrator

Signature: 

Date: 12/17/08

For Department of Conservation and Recreation Use Only

Accepted/Not Accepted by: _____ Date: _____

Basin _____ Stream Class _____ Section _____ Special Standards _____

INSTRUCTIONS for FORM DCR 199-148

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

WHO MUST FILE THE REGISTRATION STATEMENT

This registration statement must be completed and submitted by any regulated small MS4 requesting coverage under the above general permit for stormwater discharges.

1. Operators are regulated if they operate a small MS4, including but not limited to systems operated by federal, state, and local governments, including the Virginia Department of Transportation; and:

- The small MS4 is located in an urbanized area as determined by the latest Decennial Census by the Census Bureau. If the small MS4 is not located entirely within an urbanized area, only the portion that is within the urbanized area is regulated; or
- The small MS4 is designated by the Board.

2. An MS4 may be the subject of a petition to the Board to require a VSMP permit for their discharge of stormwater. If the Board determines that an MS4 needs a permit, the owner may use this registration statement to apply for coverage under the above general permit.

WHERE TO FILE THE REGISTRATION STATEMENT

The completed registration statement (with all attachments), a copy of the fee form and a copy of your check should be sent to the DCR's Stormwater Permitting Section in the Division of Soil and Water Conservation. The original fee form, application fee (as specified by Form DCR 199-145), and a copy of the registration statement (without attachments) should be sent to the DCR's Division of Finance, Accounts Payable at the address given on the fee form.

COMPLETENESS

Complete all items except where indicated in order for your registration statement to be accepted. Attach separate sheets of paper for Item 4 (Impaired Waters Information) and Item 7 (MS4 Program Plan).

DEFINITIONS

"Best management practice (BMP)" means schedules of activities, prohibitions of practices, including both a structural or nonstructural practice, maintenance procedures, and other management practices to prevent or reduce the pollution of surface waters and groundwater systems from the impacts of land-disturbing activities. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

"Operator" means the owner or operator of any facility or activity subject to regulation under the VSMP program.

"Small MS4" means all separate storm sewers that are: (1) Owned or operated by the United States, a state, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to state law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under state law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under subsection 208 of the CWA that discharges to surface waters; and (2) Not defined as "large" or "medium" municipal separate storm sewer systems, or designated under 4 VAC50-60-380 A 1. This term includes systems similar to separate storm sewer systems in municipalities, such as systems at military bases, large hospital or prison complexes, and highways and other thoroughfares. The term does not include separate storm sewers in very discrete areas, such as individual buildings.

LINE BY LINE INSTRUCTIONS

Item 1. Regulated Small MS4

Provide the name of the regulated small MS4.
Check the appropriate type of regulated small MS4

(DCR 199-148) (07/08)

Provide the location (county name or city name) where the small MS4 is located.

Item 2. Regulated Small MS4 Operator

Provide the name of the operator of the regulated small MS4.
Provide the small MS4 operator's address.
Provide the small MS4 operator's city, state and zip code.

Item 3. Receiving Waters

Provide the Hydrologic Unit Codes 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. An interactive map is available on-line at
http://www.dcr.virginia.gov/soil_&_water/hu.shtml

Item 4. Impaired Waters Information

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.

Item 5. TMDL Waste Load Allocations

Provide 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>.

Item 6. Discharges to Physically Interconnected MS4s

List the name(s) of any regulated physically interconnected MS4s to which the regulated small MS4 discharges.

Item 7. MS4 Program Plan

Attach a copy of the **MS4 Program Plan** that includes:

- 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:
 - A list of the existing policies, ordinances, schedules, inspection forms, written procedures, and other documents necessary for BMP implementation; and
 - The individual, department, division, or unit responsible for implementing the BMP;
- The objective and expected results of each BMP in meeting the measurable goals of the stormwater minimum control measures;
- The implementation schedule including any interim milestones for the implementation of a proposed new BMP; and
- The method that will be utilized to determine the effectiveness of each BMP and the program as a whole.

Item 8. Signed Third Party Agreements

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.

Item 9. Principal Executive Officer or Ranking Elected Official

Provide 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.

10. Duly Authorized Representative

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

Item 11. Certification

State law provides for severe penalties for submitting false information on this Registration Statement. State regulations require this Registration Statement to be signed as follows:

(1) For a corporation: by a responsible corporate officer. For the purpose of this subsection, a responsible corporate officer means:

- (a) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or
- (b) the manager of one or more manufacturing, production, or operating facilities, provided the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

(2) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

(3) For a municipality, state, federal, or other public agency: By either a principal executive officer or ranking elected official. For purposes of this subsection, a principal executive officer of a public agency includes:

- (a) The chief executive officer of the agency, or
- (b) A senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.

Hanover County

VSMP Registration Statement for Stormwater Discharges from
Small Municipal Separate Storm Sewer Systems
Receiving Waters - Attachment for Part 3

Names of all Hydraulic Unit Codes as identified in Virginia's 6th order National Watershed Boundary Dataset (version 2) that lie within the urbanized areas of Hanover County as identified in the Census 2000.

JL17 – Chickahominy River - Stony Run
JL19 – Chickahominy River - Powhite Creek
YO11 – South Anna River - Cedar Creek
YO28 – Crump Creek
YO30 – Totopotomoy Creek

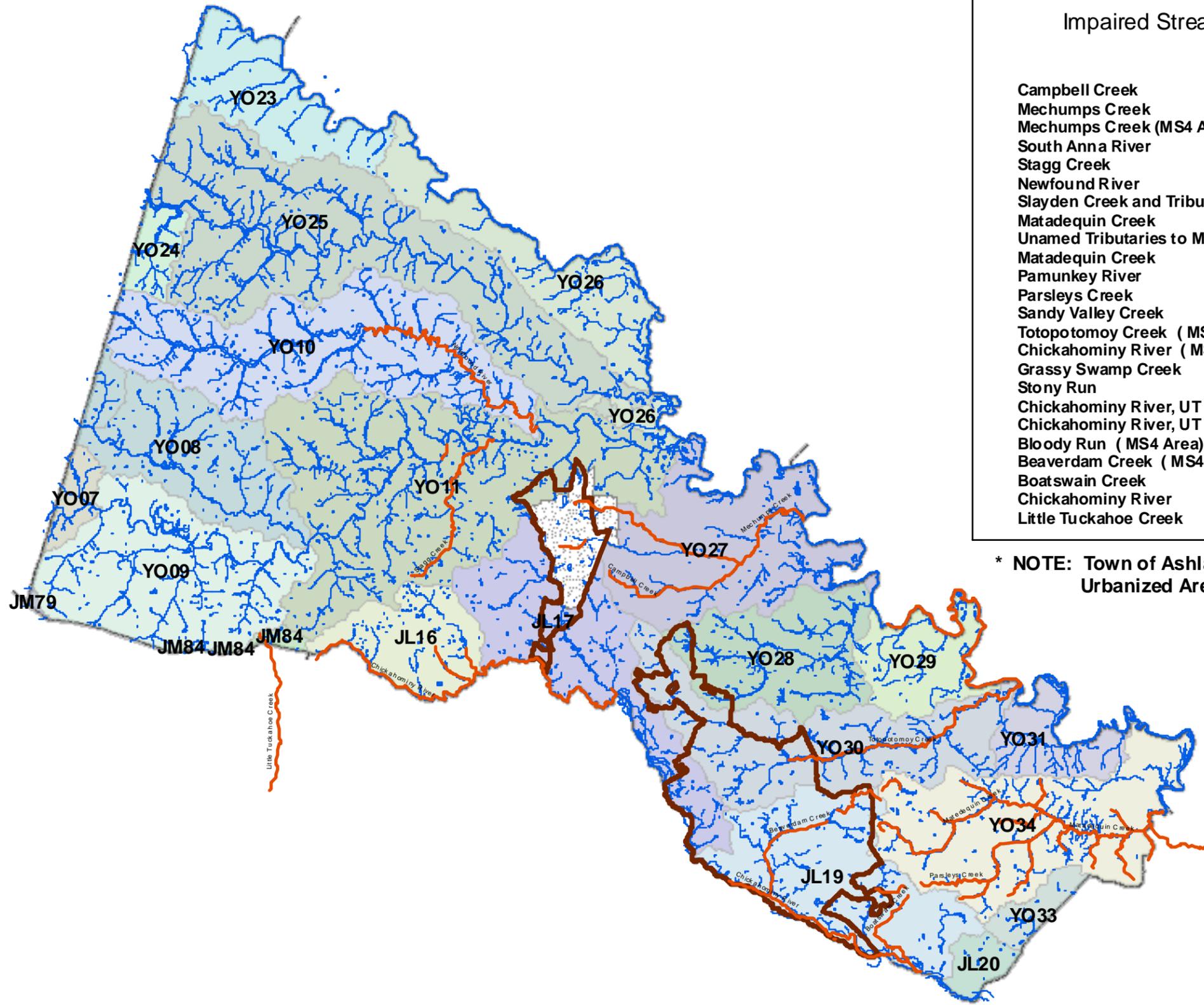
Hanover County Impaired Stream Segments



Impaired Stream Name & Designation

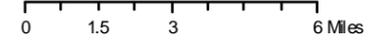
Campbell Creek	VAP-F12R_CBL01A04
Mechumps Creek	VAP-F12R_MCP01A94
Mechumps Creek (MS4 Area)	VAP-F12R_MCP03A06
South Anna River	VAP-F04R_SAR03B06
Stagg Creek	VAP-F04R_STG01A06
Newfound River	VAP-F05R_NFD01A00
Slayden Creek and Tributaries	VAP-F12R_SLD01A04
Matadequin Creek	VAP-F13R_MDQ01A98
Unnamed Tributaries to Matadequin Creek	VAP-F13R_MDQ01B06
Matadequin Creek	VAP-F13R_MDQ02A04
Pamunkey River	VAP-F13R_PMK01A98
Parsleys Creek	VAP-F13R_PRS01A04
Sandy Valley Creek	VAP-F13R_SVC01A04
Totopotomoy Creek (MS4 Area)	VAP-F13R_TPT01A98
Chickahominy River (MS4 Area)	VAP-G05R_CHK01A00
Grassy Swamp Creek	VAP-G05R_GRC01A04
Stony Run	VAP-G05R_SNF01A02
Chickahominy River, UT (MS4 Area)	VAP-G05R_XDD01A98
Chickahominy River, UT	VAP-G05R_XDD02A06
Bloody Run (MS4 Area)	VAP-G06R_BDY01A04
Beaverdam Creek (MS4 Area)	VAP-G06R_BEV01A00
Boatswain Creek	VAP-G06R_BTS01A02
Chickahominy River	VAP-G06R_CHK01A98
Little Tuckahoe Creek	VAP-H39R_LIY01A00

* NOTE: Town of Ashland is excluded from Hanover's Urbanized Area and is not part of MS4



Legend

- Impaired Streams
- Urbanized Areas 2002
- Streams
- Ashland Corp Limits
- County Boundary



Hanover County

VSMP Registration Statement for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems Drainage Areas to Impaired Waters - Attachment for Part 4

Names of all receiving waters listed in the final 2006 305(b)/303(d) Water Quality Assessment Integrated Report that lie within the urbanized areas of Hanover County as identified in the Census 2000. Provided below is a [keymap](#) of the area as well as individual receiving waters.

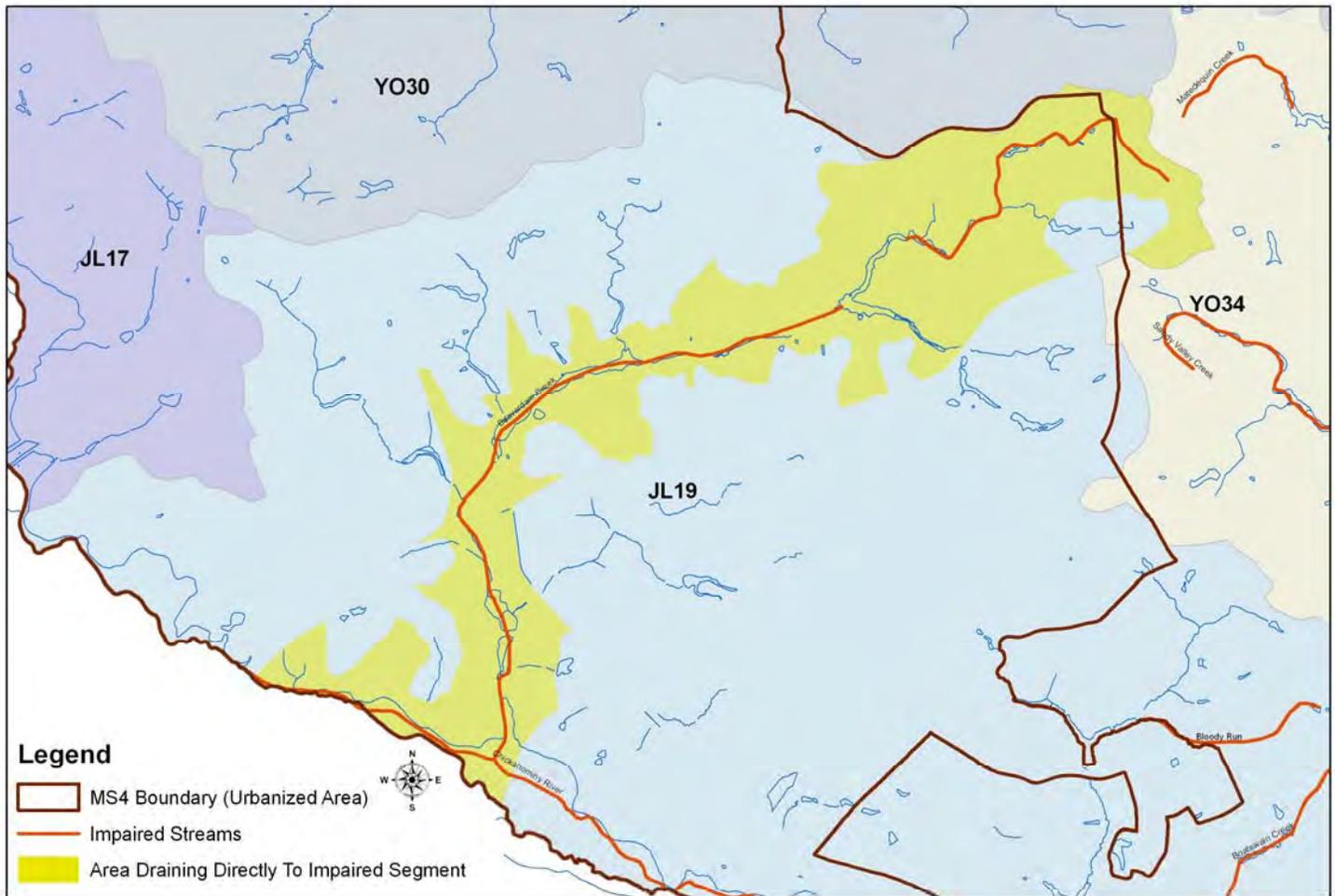
Beaverdam Creek
Bloody Run
Chickahominy River
Totopotomoy Creek

Beaverdam Creek (VAP-G06R REV01A00)

The sub-watersheds which account for the direct drainage area to this impaired segment are as follows. BDM-1, 4, 8, 15, 17, 20, 25, 26, 34, 45, and CR-11. This yields a total area of 2,482 acres.

The sub-watersheds which account for the total drainage area to this impaired segment are as follows. All of BDM, CR-11, and CR-12. This yields a total area of 7,770 acres.

The area directly discharging from the urbanized area to this segment is 2,312 acres. The direct drainage area is represented in yellow and the urbanized area is outlined in brown.



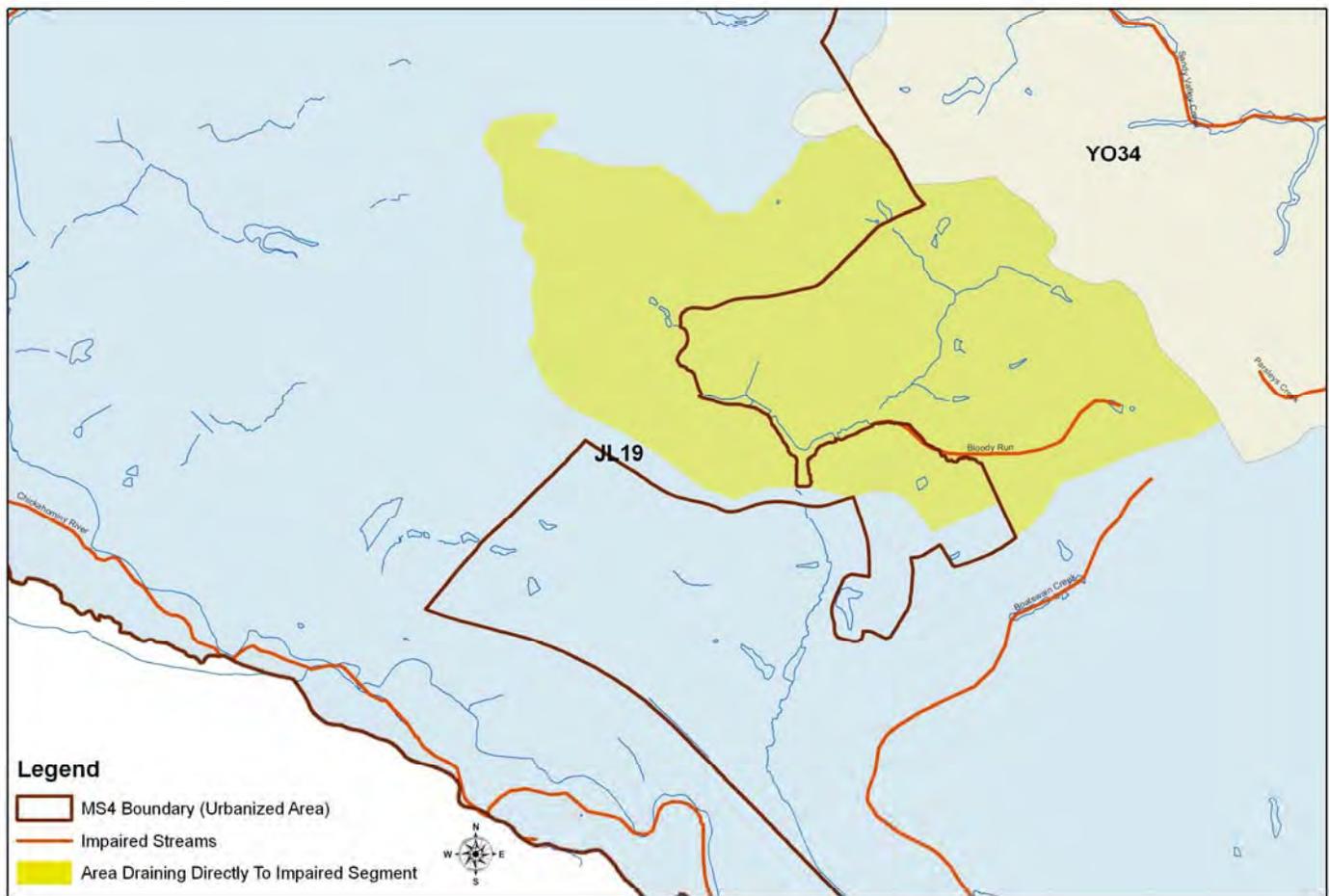
Bloody Run (VAP-G06R BDY01A04)

The PC-6 sub-watershed accounts for the direct drainage area to this impaired segment. This yields a total area of 1,779 acres.

The entire PC watershed accounts for the total drainage area to this impaired segment. This yields a total area of 3,120 acres.

The area directly discharging from the urbanized area to this segment is 109 acres.

The direct drainage area is represented in yellow and the urbanized area is outlined in brown.



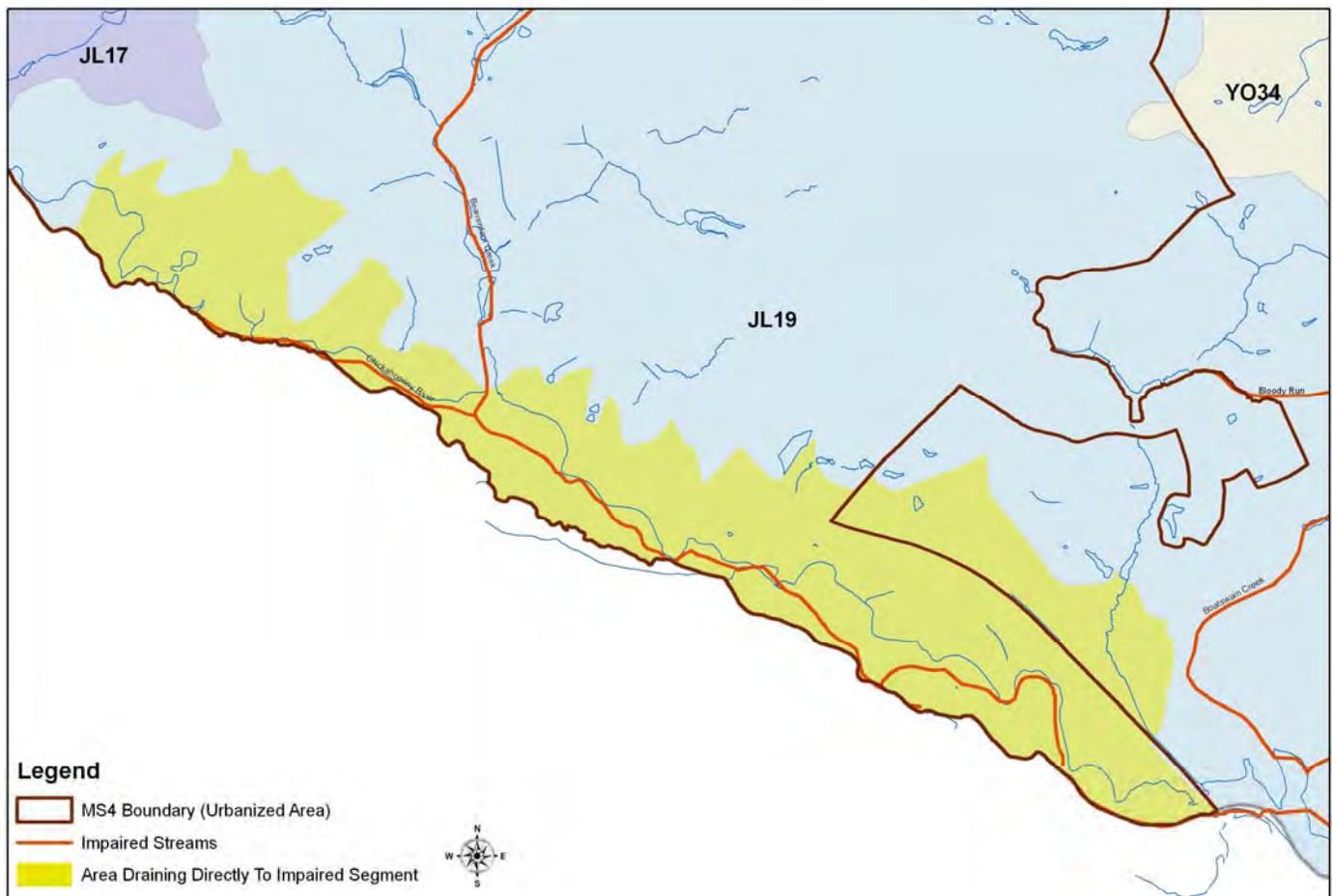
Chickahominy River (VAP-G06R CHK01A98)

The sub-watersheds which account for the direct drainage area to this impaired segment are as follows. CR-1, CR-6, CR-11, CR-15, PC-1, BWC-1, and BWC-2. This yields a total area of 4,192 acres.

The watersheds which account for the total drainage area to the impaired segment are CR, PC, and BWC. This yields a total area of 17,386 acres.

The area directly discharging from the urbanized area to this segment is 2,433 acres.

The direct drainage area is represented in yellow and the urbanized area is outlined in brown.



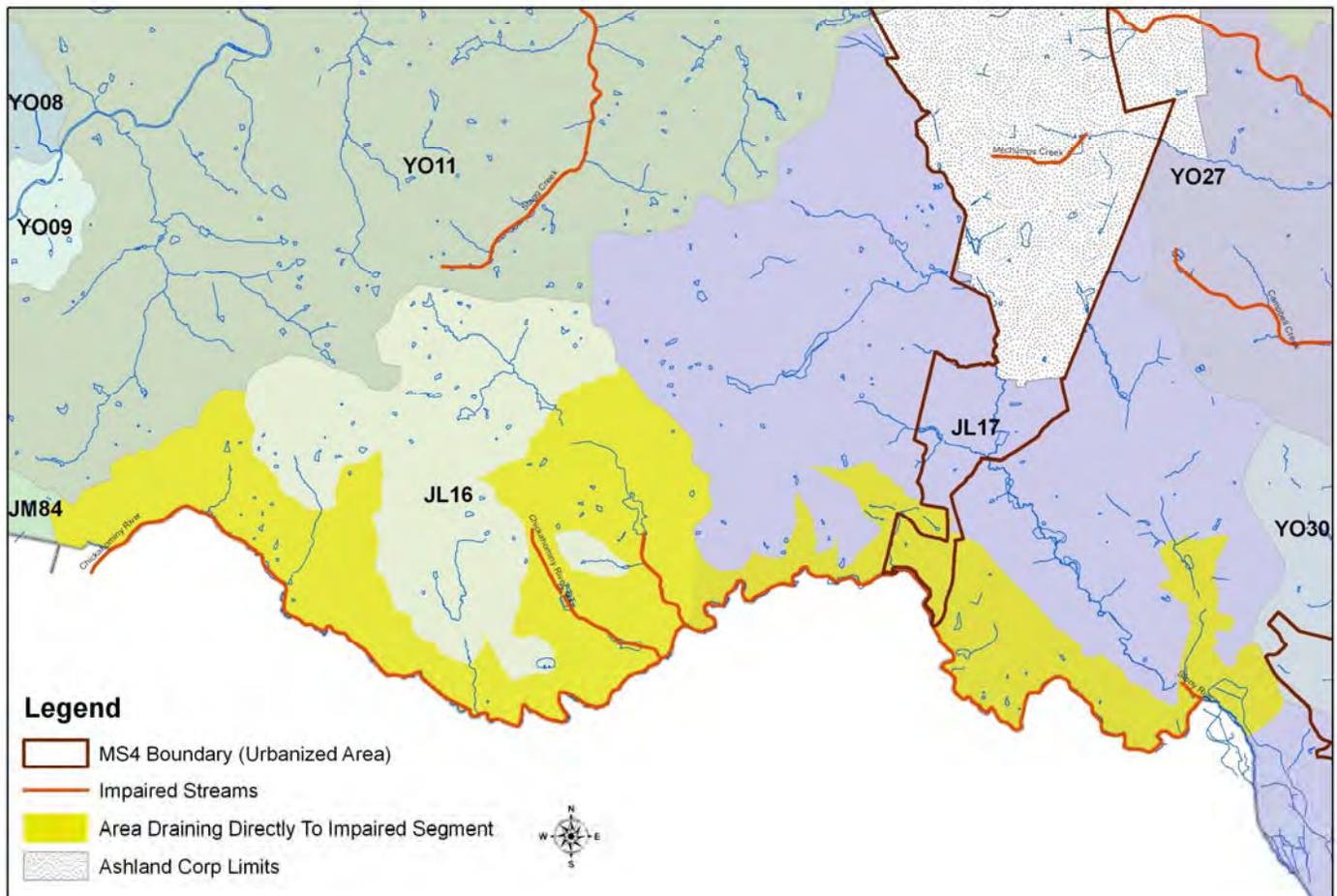
Chickahominy River (VAP-G05R CHK01A00)

The sub-watersheds which account for the direct drainage area to this impaired segment are as follows. BH-1, BH-4, BH-5, BH-6, BH-7, BH-8, BH-10, BH-14, GS-6, GS-7, CR-40, CR-41, CR-43, CR-44, CR-47, CR-49, CR-51, and CR-55. This yields a total area of 5,497 acres.

The watersheds which account for the total drainage area to the impaired segment are BH, GS, and CR. This yields a total area of 20,196 acres.

The area directly discharging from the urbanized area to this segment is 191 acres.

The direct drainage area is represented in yellow and the urbanized area is outlined in brown.



Totopotomoy Creek (VAP-F13R TPT01A98)

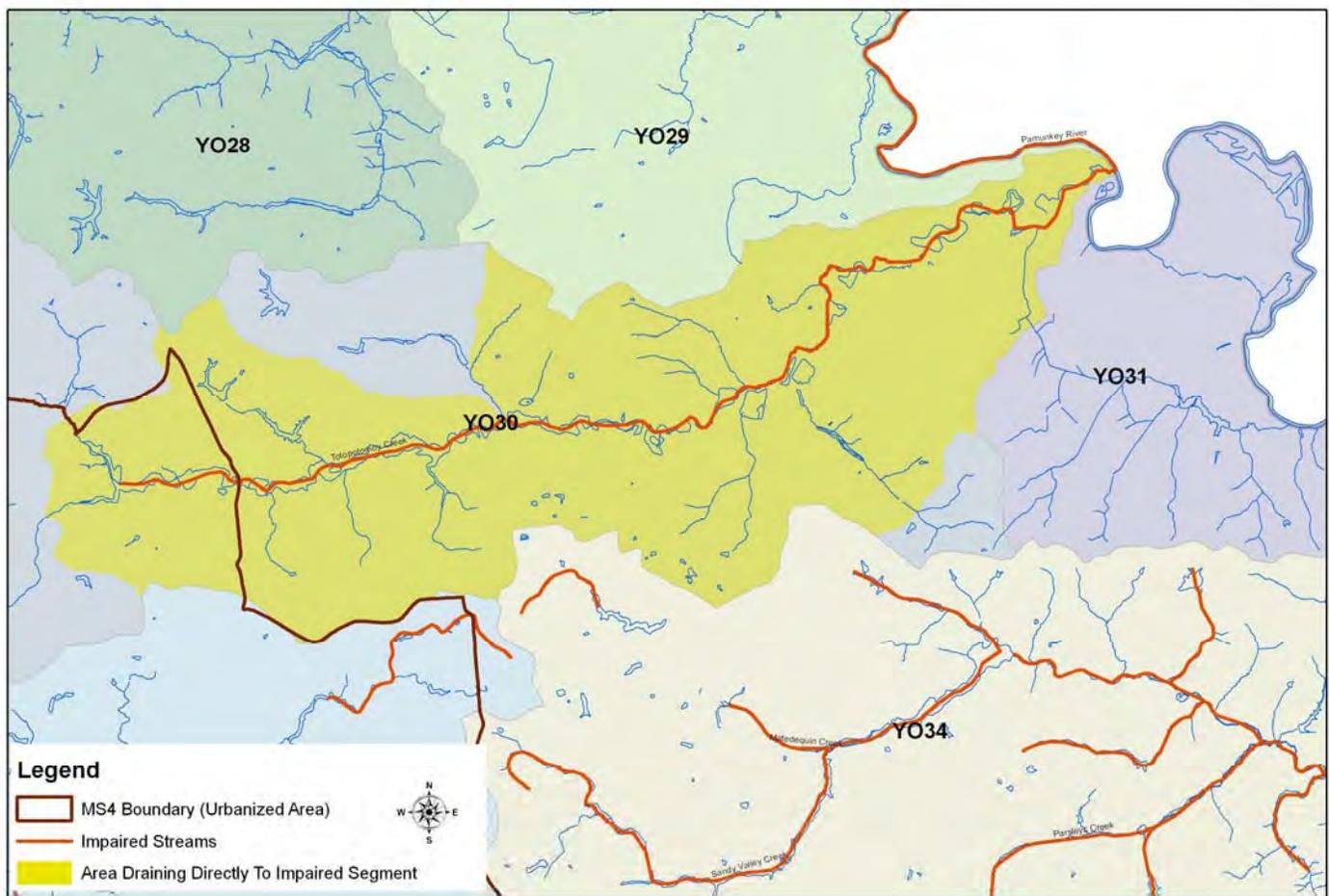
The sub-watersheds which account for the direct drainage area to this impaired segment are as follows. TY-1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 15, 16, 17, 19, 20, 21, 24, and 30. This yields a total area of 9,842 acres.

The watershed which accounts for the total drainage area is TY which totals 19,567 acres.

The total drainage area as listed by the 2006 TMDL for the Pamunkey River Basin is 20,050 acres.

The area directly discharging from the urbanized area to this segment is 1,060 acres.

The direct drainage area is represented in yellow and the urbanized area is outlined in brown.



Hanover County

VSMP Registration Statement for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems TMDL Waste Load Allocations - Attachment for Part 5

The following are the TMDL's which have been developed to date for Hanover County:

Matadequin Creek - No specific waste load allocation was provided for the MS4 in the TMDL.

Mechumps Creek - The Hanover MS4 permit does not include the Mechumps Creek watershed. Although waste load allocations were presented in the TMDL, no specific waste load allocation was provided for the MS4.

Pamunkey River - Although the TMDL stated that Hanover MS4 Permit #VAR040012 was within the area contributing to the impairment, no waste load allocation was provided for the MS4 in the TMDL. Section 6.4.3 of the TMDL for the Pamunkey River States "Wasteload allocations for stormwater discharges from storm sewer systems covered by a MS4 permit will be addressed in TMDL implementation plans. An implementation plan will identify types of corrective actions and strategies to obtain the wasteload allocation for the pollutant causing the water quality impairment."

Chickahominy River, Unnamed Tributary - Although waste load allocations were presented in the TMDL, no specific waste load allocation was provided for the Hanover County MS4.

Hanover County

VSMP Registration Statement for Stormwater Discharges from

Small Municipal Separate Storm Sewer Systems

Program Plan – Attachment for Part 7

TABLE OF CONTENTS

MINIMUM CONTROL MEASURE 1 - Public Education and Outreach.....	1
Measurable Goal 1.a - Increased Individual and Household Knowledge.....	1
BMP 1.a.(1) - Watershed education for students.....	1
BMP 1.a.(2) - Support of Master Gardeners program	2
BMP 1.a.(3) - Hanover Pet Waste Management Program (Pooch Pal).....	2
Measurable Goal 1.b - Increased Public Employee, Business and Public Knowledge	3
BMP 1.b.(1) - Stormwater Fact Sheets	3
BMP 1.b.(2) - Employee Education.....	4
BMP 1.b.(3) - Stormwater Web Resources	5
Measurable Goal 1.c – Increased Individual and Group Involvement.....	5
BMP 1.c.(1) – Adopt a Highway	5
BMP 1.c.(3) – Adopt-A-Stream.....	6
BMP 1.c.(4) - Development Community Meeting	7
Diverse Strategies 1.d. – Diverse Strategies.....	7
BMP 1.d.(1) – Diverse Strategies	7
Measurable Goal 1.e – Improved Outreach	8
BMP 1.e.(1) – Identify audiences	8
BMP 1.e.(2) – Develop strategies to address target audiences.....	9
BMP 1.e.(3) – Grass Roots Neighborhood Recycling.....	9
Measurable Goal 1.f. – Targeted Strategies.....	10
BMP 1.f.(1) – Commercial Site Inspections.....	10
MINIMUM CONTROL MEASURE 2 - Public Involvement/Public Participation	11
Measurable Goal 2.a. – Promote Availability of MS4 Program Plan	11
BMP 2.a.(1) – Place MS4 Program Plan on Hanover Website	11
Measurable Goal 2.b. – Provide Annual Report Upon Request	11
BMP 2.b. – Annual report provided upon request.....	12
Measurable Goal 2.c. – Participate in Activities Aimed at Reducing Pollutant Loads	12
BMP 2.c. – Identify organizations aimed at improving water quality.....	12
MINIMUM CONTROL MEASURE 3 - Illicit Discharge Detection and Elimination.....	14
Measurable Goal 3.a. – Illicit Discharge Program.....	14

BMP 3.a. – Outfall Screening	14
Measurable Goal 3.b. – Storm Sewer System Mapping	15
BMP 3.b. – Map outfalls	15
Measurable Goal 3.c. – Prohibit Non-stormwater Discharges Through Ordinance	15
BMP 3.c. – Review Ordinances	16
Measurable Goal 3.d. – Develop Procedures to Detect Illicit Discharge	16
BMP 3.d.(1) – Develop procedures to detect illicit discharge	16
Measurable Goal 3.e. – Prevent or Minimize Discharge of Hazardous Substances.....	17
BMP 3.e. – Review response procedures for illicit discharge	17
Measurable Goal 3.f. – Track Illicit Discharge.....	18
BMP 3.f. – Illicit discharge tracking reporting	18
Measurable Goal 3.g. – Downstream MS4 Notification.....	19
BMP 3.g. – None Required.....	19
Additional Efforts 3.h. – Hanover County Efforts to Address Illicit Discharge.....	19
BMP 3.h.(1) – Assign-A-Highway	19
BMP 3.h.(2) - Hanover Pet Waste Management Program (Pooch Pal).....	20
BMP 3.h.(3) – Household Hazardous Waste Collection	20
BMP 3.h.(4) – Street Sweeping Program.....	21
MINIMUM CONTROL MEASURE 4 - Construction Site Stormwater Run-off Control. 22	
Measurable Goal 4.a. – Implement Program to Address Construction Site Run-off	22
BMP 4.a. – Implement Erosion and Sediment Control Program Consistent with State Regulations	23
Measurable Goal 4.b. – Personnel Certification for Erosion and Sediment Control.....	24
BMP 4.b. – Plan reviewer, inspector, and administrator certification.....	24
Measurable Goal 4.c. – Land Disturbing Activity Tracking	24
BMP 4.c. – Land disturbance tracked in annual report.....	24
MINIMUM CONTROL MEASURE 5 - Post-construction Stormwater Management in New Development and Redevelopment..... 26	
Measurable Goal 5.a. – Stormwater Managed Consistent with Regulations.....	27
BMP 5.a.(1) – Stormwater program consistent with State regulations.....	27
BMP 5.a.(2) – VSMP construction permit for land disturbance.....	28
BMP 5.a.(3) – Maintenance agreement required	28
BMP 5.a.(4) – Site inspection and enforcement	29

BMP 5.a.(5) – Facility tracking	30
MINIMUM CONTROL MEASURE 6 - Pollution Prevention/Good Housekeeping for Municipal Operations.....	31
Measurable Goal 6.a. – Employee Education.....	31
BMP 6.a. – Employee Education.....	31
Measurable Goal 6.b. – Operation and maintenance programs	32
BMP 6.b. – Stormwater basin inspection program.....	32
Measurable Goal 6.c. – Illicit Discharge Elimination.....	33
BMP 6.c. – Illicit discharge	33
Measurable Goal 6.d. – Material Management.....	33
BMP 6.d. – Materials management notification	34

Hanover County

VSMP Registration Statement for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems Program Plan – Attachment for Part 7

BMPS ADDRESSING THE SIX MINIMUM CONTROL MEASURES

MINIMUM CONTROL MEASURE 1 - Public Education and Outreach

Hanover County will implement a public education program to distribute educational materials to the community or conduct equivalent outreach activities about the impacts of stormwater discharges on water bodies and the steps that the public can take to reduce pollutants in stormwater runoff.

Hanover County shall identify, schedule, implement, evaluate and modify, as necessary, BMPs to meet the following public education and outreach measurable goals:

Measurable Goal 1.a - Increased Individual and Household Knowledge

Increased individual and household knowledge about the steps that they can take to reduce stormwater pollution, placing priority on reducing impacts to impaired waters and other local water pollution concerns;

BMP 1.a.(1) - Watershed education for students

Watershed Education for Students - The County will continue to support the efforts of the Hanover/Caroline Soil and Water Conservation Service to provide a meaningful watershed experience for Hanover County Students.

Policies, Ordinances, and Written Procedures

Hanover/Caroline Soil and Water Conservation District - Plan of Work

Hanover/Caroline Soil and Water Conservation District - Memorandum of Understanding

Implementation Schedule

Continue watershed education for students - Years 1-5

Responsible Individual, Department, Division, or Unit

Hanover County Department of Public Works

Hanover/Caroline Soil and Water Conservation Service

Objective and Expected Results

Increased student knowledge on the influences of stormwater on water quality

Method to Determine BMP Effectiveness

Participation in class

Items Needed for Annual Report

Content of program and dates of seminars and/or outings

BMP 1.a.(2) - Support of Master Gardeners program

Support of Master Gardeners Program - The County will continue to participate in seminars for the Master Gardeners program. The Master Gardeners are environmental educators who we have routinely included in our educational efforts related to our MS4 program. Master Gardeners are environmental stewards who, in turn, educate the public regarding water quality and other environmental issues.

Policies, Ordinances, and Written Procedures

Hanover/Caroline Soil and Water Conservation District - Plan of Work

Hanover/Caroline Soil and Water Conservation District - Memorandum of Understanding

Implementation Schedule

Continue support of Master Gardeners program – Years 1-5

Responsible Individual, Department, Division, or Unit

Public Works

Objective and Expected Results

Increased knowledge of methods to reduce stormwater pollution

Method to Determine BMP Effectiveness

Participation in classes and training

Items Needed for Annual Report

Date and content of presentations

Training participants

BMP 1.a.(3) - Hanover Pet Waste Management Program (Pooch Pal)

Hanover Pet Waste Management Program (Pooch Pal) – The pet waste management program places post mounted distribution boxes for bags to be used for the collection of pet wastes in public parks, recreational areas, and in neighborhoods. A network of sponsors keeps the distribution boxes full of bags to be used to collect pet wastes. This will serve to educate the public of the importance of the collection of these wastes. In year 3 of our permit, we will develop and circulate a flier discussing pet wastes effects on stormwater. *See also BMP 3.h.(2)*.

Policies, Ordinances, and Written Procedures

Written policy to be developed

Implementation Schedule

Implement program - Years 1-5

Develop written pet waste program policy – Year 1

Develop public education flier for pet waste - Year 3

Responsible Individual, Department, Division, or Unit

Waste Services Superintendent

Public Works

Objective and Expected Results

Awareness that pet waste contributes to pollution

Collection of pet waste

Method to Determine BMP Effectiveness

Amount of pet waste collected based on the number of bags used

Items Needed for Annual Report

Tonnage Reported. Locations of all pet waste boxes and numbers of bags distributed to collect pet wastes in neighborhoods, parks and schools.

Measurable Goal 1.b - Increased Public Employee, Business and Public Knowledge

Increased public employee, business, and general public knowledge of hazards associated with illegal discharges and improper disposal of waste, including pertinent legal implications;

BMP 1.b.(1) - Stormwater Fact Sheets

Stormwater Fact Sheets - The County will continue to maintain stormwater fact sheets on the County's website. These fact sheets will be distributed to the public, businesses, and the construction community as appropriate. Also, new fact sheets will be developed as needed. Develop construction site inspection checklist items to document compliance with fact sheet elements.

Policies, Ordinances, and Written Procedures

Small MS4 Program Overview - Information Bulletin 1

Illicit Discharge Detection and Elimination - Information Bulletin 2

Implementation Schedule

Maintain and distribute stormwater fact sheets - Years 1-5

Develop fact sheet for retail waste management – Year 2

Implement checklist items to document compliance
with E&S related requirements by - Year 1

Responsible Individual, Department, Division, or Unit

Public Works

Objective and Expected Results

Increased compliance with requirements

Method to Determine BMP Effectiveness

Construction site checklist items added based on documents developed - Year 5

Items Needed for Annual Report

Copies of all fact sheets prepared by the County

Copy of checklist items

BMP 1.b.(2) - Employee Education

Employee Education - The County will perform educational programs for employees including employees of maintenance shops, parks and recreation grounds maintenance with the ultimate goal of preventing or reducing pollutant runoff from municipal operations.

Policies, Ordinances, and Written Procedures

None

Implementation Schedule

Conduct employee education for the MS4 program – Year 2

Responsible Individual, Department, Division, or Unit

Public Works

Objective and Expected Results

Increased employee knowledge of MS4 program and methods to decrease pollutants

Method to Determine BMP Effectiveness

Employee participation in training

Items Needed for Annual Report

Dates and content of seminars.

Quiz results

BMP 1.b.(3) - Stormwater Web Resources

Stormwater Web Resources - The County will develop a webpage to provide links to stormwater resources.

Policies, Ordinances, and Written Procedures

None

Implementation Schedule

Update website stormwater resources - Year 3

Responsible Individual, Department, Division, or Unit

Public Works

Objective and Expected Results

Increased public awareness of stormwater issues

Method to Determine BMP Effectiveness

Hits on the stormwater website

Items Needed for Annual Report

Hits on the stormwater portion of the Hanover County Website

Measureable Goal 1.c. – Increased Individual and Group Involvement

Increased individual and group involvement in local water quality improvement initiatives including the promotion of local restoration and clean up projects, programs, groups, meetings and other opportunities for public involvement;

BMP 1.c.(1) – Adopt a Highway

Adopt-A-Highway - The County will publicize the State’s adopt-a-highway program on the Hanover County website.

Policies, Ordinances, and Written Procedures

Website information developed to publicize the program

Implementation Schedule

Web site developed promoting Adopt-A-Highway – Year 2

Support Adopt-A-Highway program - Years 1-5

Responsible Individual, Department, Division, or Unit

Waste Services Superintendent

Public Works

Objective and Expected Results

Promotion of this program in Hanover

Method to Determine BMP Effectiveness

Document the number of visitors to the Adopt-a-highway webpage

Items Needed for Annual Report

Document the number of visitors to the Adopt-a-highway webpage

Miles managed

BMP 1.c.(3) – Adopt-A-Stream

Adopt-A-Stream - The County will promote the State's adopt-a-stream program on the Hanover County website. Waste disposal will be free for any wastes collected through this program.

Policies, Ordinances, and Written Procedures

Website information developed to promote program

Implementation Schedule

Web-site developed promoting Adopt-A-Stream – Year 2

Support Adopt-A-Stream program - Years 1-5

Responsible Individual, Department, Division, or Unit

Waste Services Superintendent

Objective and Expected Results

Visitors to Hanover's website will be made aware of the states program to promote stream clean ups.

Method to Determine BMP Effectiveness

Document the number of visitors to the Adopt-A-Stream webpage

Items Needed for Annual Report

Document the number of visitors to the Adopt-A-Stream webpage

BMP 1.c.(4) - Development Community Meeting

Development Community Meeting – Hanover County sponsors a regular development community meeting. Topics to discuss will include initiatives regarding stormwater, erosion and sediment control, Chesapeake Bay preservation and associated issues.

Policies, Ordinances, and Written Procedures

County sponsors regular development community meeting

Implementation Schedule

Conduct Development Community Meeting - Years 1-5

Responsible Individual, Department, Division, or Unit

Community Development Departments

Objective and Expected Results

Increased developer, consultant, and employee awareness of issues and initiatives regarding stormwater, erosion and sediment control, and Chesapeake Bay preservation.

Method to Determine BMP Effectiveness

Attendance for developers meeting

Items Needed for Annual Report

Agenda for Quarterly Developer’s Meeting

Attendance for developer’s meeting

Diverse Strategies 1.d. – Diverse Strategies

Diverse strategies to target audiences specific to the area serviced by the regulated small MS4;

BMP 1.d.(1) – Diverse Strategies

Diverse Strategies - The County will promote increased knowledge related to the MS4 program using diverse strategies including the County website, fliers, fact sheets, presentations, education of Master Gardeners, and Quarterly Developer meetings. Refer to specific BMP activities outline in Measurable Goal 1.

Policies, Ordinances, and Written Procedures

MS4 objectives for BMP 1 include the diverse elements outlined above.

Implementation Schedule

Implement diverse strategies to promote the MS4 program - Years 1-5

Responsible Individual, Department, Division, or Unit

Public Works

Objective and Expected Results

Employ the strategies outlined above to increase public knowledge of MS4 program elements.

Method to Determine BMP Effectiveness

Document diverse strategies employed to promote increased knowledge.

Items Needed for Annual Report

Strategies, publications, events and content

Measurable Goal 1.e – Improved Outreach

Improved outreach program to address viewpoints and concerns of target audiences, with recommended focus on minorities, disadvantaged audiences and minors;

BMP 1.e.(1) – Identify audiences

Identify target audiences in Hanover that require information in order to avoid contributing to storm water pollution.

Policies, Ordinances, and Written Procedures

Hanover County population data

Implementation Schedule

Identify target audiences to improve outreach - Years 1-5

Responsible Individual, Department, Division, or Unit

Public Works

Objective and Expected Results

Identify groups to target

Develop strategies to address the audiences

Method to Determine BMP Effectiveness

To be determined based on strategy developed. This issue will be addressed with each strategy.

Items Needed for Annual Report

Listing of target audiences

BMP 1.e.(2) – Develop strategies to address target audiences

Develop strategies to address target audiences identified under these provisions.

Policies, Ordinances, and Written Procedures

To be developed

Implementation Schedule

Develop strategies to address target audiences for improved outreach - Years 1-5

Responsible Individual, Department, Division, or Unit

Public Works

Objective and Expected Results

Identify groups to target

Develop strategies to address the audiences

Method to Determine BMP Effectiveness

To be determined based on strategy developed. This issue will be addressed with each strategy.

Items Needed for Annual Report

Identify groups for which outreach programs have been implemented. Develop strategies to address identified groups.

BMP 1.e.(3) – Grass Roots Neighborhood Recycling

In response to citizen input, Hanover has created special service districts that communities may participate in at their own option to increase recycling in individual subdivisions. At each community meeting the options available under the program are presented. In addition, information is presented on composting and other programs that encourage environmental responsibility.

Policies, Ordinances, and Written Procedures

Recycling service district application procedure

Implementation Schedule

Implement grass roots driven neighborhood recycling – Years 1-5

Responsible Individual, Department, Division, or Unit

Waste program manager

Public Works

Objective and Expected Results

Provide grass roots driven recycling in the County

Method to Determine BMP Effectiveness

List of participating neighborhoods

Items Needed for Annual Report

Neighborhood list

Measurable Goal 1.f. – Targeted Strategies

Targeted strategies towards local groups of commercial, industrial, and institutional entities likely to have significant stormwater impacts.

BMP 1.f.(1) – Commercial Site Inspections

Commercial site inspections – The County will conduct random inspections of designated retail areas and note any litter trash or stormwater issues to the management of the business located there.

Policies, Ordinances, and Written Procedures

List of designated commercial sites to be inspected for waste management and illicit discharge.

Implementation Schedule

Conduct commercial site inspections - Years 1-5

Responsible Individual, Department, Division, or Unit

Waste Collection Superintendent

Objective and Expected Results

Increased awareness of businesses management of waste materials.

Method to Determine BMP Effectiveness

Properly managed waste at commercial centers

Items Needed for Annual Report

Date and location of inspections as well as any follow-up actions.

MINIMUM CONTROL MEASURE 2 - Public Involvement/Public Participation

Hanover County will comply with applicable state, tribal, and local public notice requirements when implementing the MS4 Program.

Hanover County shall identify, schedule, implement, evaluate and modify, as necessary, BMPs to meet the following public involvement/participation measurable goals:

Measurable Goal 2.a. – Promote Availability of MS4 Program Plan

Promote the availability of the operator's MS4 Program Plan and any modifications for public review and comment. Public notice shall be given by any method reasonably calculated to give actual notice of the action in question to the persons potentially affected by it, including press releases or any other forum or medium to elicit public participation. Provide access to or copies of the MS4 Program Plan or any modifications upon request of interested parties in compliance with all applicable freedom of information regulations;

BMP 2.a.(1) – Place MS4 Program Plan on Hanover Website

The environmental section of the Public Works website will be updated to specifically promote the MS4 program plan and provide a contact for obtaining the plan and information on the MS4 program. The MS4 program plan will be placed on the website.

Policies, Ordinances, and Written Procedures

Website information developed to promote MS4 Program Plan

Implementation Schedule

MS4 Program Plan place on website - Year 1

Responsible Individual, Department, Division, or Unit

Public Works

Objective and Expected Results

Visitors to Hanover's website will be made aware of the MS4 Program Plan.

Method to Determine BMP Effectiveness

Document the number of visitors to the MS4 Program Plan webpage

Items Needed for Annual Report

Document the number of visitors to the MS4 Program Plan webpage

Measurable Goal 2.b. – Provide Annual Report Upon Request

Provide access to or copies of the annual report upon request of interested parties in compliance with all applicable freedom of information regulations; and

BMP 2.b. – Annual report provided upon request

Copies of the MS4 annual report will be available to interested parties upon request.

Policies, Ordinances, and Written Procedures

Website information developed to promote MS4 Program Plan

Implementation Schedule

Make Annual Report available - Years 1-5

Responsible Individual, Department, Division, or Unit

Public Works

Objective and Expected Results

Increase public awareness of availability of annual report

Method to Determine BMP Effectiveness

Document the number of visitors to the MS4 Program Plan webpage

Document the number of requests for the MS4 annual report

Items Needed for Annual Report

Document the number of visitors to the MS4 Program Plan webpage

Document the number of requests for the MS4 annual report

Measurable Goal 2.c. – Participate in Activities Aimed at Reducing Pollutant Loads

Participate, through promotion, sponsorship, or other involvement, in local activities aimed at increasing public participation to reduce stormwater pollutant loads and improve water quality.

BMP 2.c. – Identify organizations aimed at improving water quality

Hanover County will identify the local organizations aimed at improving water quality

Policies, Ordinances, and Written Procedures

None

Implementation Schedule

Identify organizations aimed at improving water quality - Years 1-5

Responsible Individual, Department, Division, or Unit

Public Works

Objective and Expected Results

Provide list of organization in Hanover County aimed at protecting water quality

Method to Determine BMP Effectiveness

Prepare listing of organizations

Items Needed for Annual Report

List of Local Organizations

MINIMUM CONTROL MEASURE 3 - Illicit Discharge Detection and Elimination

Hanover County shall identify, schedule, implement, evaluate and modify, as necessary, BMPs to meet the following illicit discharge detection and elimination measurable goals:

Measurable Goal 3.a. – Illicit Discharge Program

Develop, implement and enforce a program to detect and eliminate illicit discharges, as defined at 4VAC50-60-10, into the regulated small MS4

BMP 3.a. – Outfall Screening

Hanover County will screen all regulated outfalls during the term of the MS4 permit. Focus will be placed on watersheds with impaired stream segments. Watersheds where waste load allocations have been established will receive greatest focus.

Policies, Ordinances, and Written Procedures

- Policies
Internal Illicit Discharge Tracking and Response Procedures
Hanover County, outfall screening procedures
- Ordinances
Discharges to storm sewer system - Hanover County Code Chapter 10, Article IV, Sec. 10-74
- Other Documents
Internal Illicit Discharge Tracking and Response Procedures

Implementation Schedule

Screen all outfalls during the term of the MS4 permit – Years 1-5

Responsible Individual, Department, Division, or Unit

Public Works

Objective and Expected Results

Identify outfalls that may be regularly contributing to stormwater pollution or may contain illicit discharges

Method to Determine BMP Effectiveness

Outfalls screened and results of screening.

Items Needed for Annual Report

Documentation on outfalls screened during each year of the term of the permit, any indications of illicit discharge, and follow-up actions.

Measurable Goal 3.b. – Storm Sewer System Mapping

Develop, if not already completed, and maintain, an updated storm sewer system map, showing the location of all known outfalls of the regulated small MS4 including those physically interconnected to a regulated MS4, the associated surface waters and HUCs, and the names and locations of all impaired surface waters that receive discharges from those outfalls. The operator shall also estimate the acreage within the regulated small MS4 discharging to each HUC and impaired water;

BMP 3.b. – Map outfalls

Maps will be prepared of all known regulated outfalls, the associated HUCs and the names and locations of impaired surface waters receiving discharges for the outfalls. The acreage discharging to each HUC and impaired water will be noted.

Policies, Ordinances, and Written Procedures

None

Implementation Schedule

Develop standard content of mapping with GIS department – Year 1

Develop procedure to add new outfall locations – Year 2

Provide estimate of acreage directly draining to HUCs and impaired waters – Years 1-5

Responsible Individual, Department, Division, or Unit

Public Works

Objective and Expected Results

Prepare required maps

Method to Determine BMP Effectiveness

Maps to be updated during the term of the permit

Items Needed for Annual Report

Outfall map containing the required information

Measurable Goal 3.c. – Prohibit Non-stormwater Discharges Through Ordinance

To the extent allowable under state, tribal or local law or other regulatory mechanism, effectively prohibit, through ordinance, or other regulatory mechanism, non-stormwater

discharges into the storm sewer system and implement appropriate enforcement procedures and actions;

BMP 3.c. – Review Ordinances

Review ordinances to ensure prohibition of non-stormwater discharges as well as appropriate enforcement procedures and actions. Ensure consistency with state and federal regulations.

Policies, Ordinances, and Written Procedures

Erosion and Sediment Control – Hanover County Code Chapter 10, Article I

Discharges to the storm sewer system – Hanover County Code Chapter 10, Article IV, Sec. 10-74

Implementation Schedule

Review ordinances for compliance with federal and state regulations - Year 4

Responsible Individual, Department, Division, or Unit

Public Works

Objective and Expected Results

Ensure ordinances meet applicable regulatory requirements

Method to Determine BMP Effectiveness

Review ordinances to ensure they prohibit illicit discharges and allow enforcement consistent with federal and state regulations

Items Needed for Annual Report

Results of ordinance review

Measurable Goal 3.d. – Develop Procedures to Detect Illicit Discharge

Develop and implement procedures to detect and address nonstormwater discharges, including illegal dumping, to the regulated small MS4;

BMP 3.d.(1) – Develop procedures to detect illicit discharge

Develop procedures to detect illicit discharge – Outfall screening will be used to detect illicit discharge. In addition, procedures will be developed to inform property owners of the laws associated with illegal dumping and waste disposal. Hanover will develop a formal written procedure of this process. Continue to promote recycling and household hazardous waste management.

Policies, Ordinances, and Written Procedures

Property owner notification forms

Implementation Schedule

Prepare written procedure for property owner notification of illicit discharge – Year 1

Notification of local requirements for waste disposal – Years 1-5

Responsible Individual, Department, Division, or Unit

Public Works

Objective and Expected Results

Detect illicit discharge. Inform homeowners that illegal dumping violates stormwater and other provisions of Hanover ordinances

Method to Determine BMP Effectiveness

Document any enforcement actions resulting from illicit discharge violations

Items Needed for Annual Report

Written procedure for notification of property owners

Copy of property owner notification letter

Any enforcement actions resulting from non-compliance with ordinances

Measurable Goal 3.e. – Prevent or Minimize Discharge of Hazardous Substances

Prevent or minimize to the maximum extent practicable, the discharge of hazardous substances or oil in the stormwater discharge(s) from the regulated small MS4. In addition, the MS4 Program must be reviewed to identify measures to prevent the recurrence of such releases and to respond to such releases, and the program must be modified where appropriate. This permit does not relieve the operator or the responsible part(ies) of any reporting requirements of 40 CFR Part 110 (2001), 40 CFR Part 117 (2001) and 40 CFR Part 302 (2001) or §62.1-44.34:19 of the Code of Virginia;

BMP 3.e. – Review response procedures for illicit discharge

Review procedures to respond to discharges of hazardous substances including oil to the small MS4. Update written procedures as necessary. Respond to releases as appropriate.

Policies, Ordinances, and Written Procedures

Illicit Discharge Tracking and Response - March 29, 2006

Implementation Schedule

Coordinate illicit discharge response procedures with Fire Marshall – Years 1-5

Respond to illicit discharges – Years 1-5

Update of written procedure – as needed

Responsible Individual, Department, Division, or Unit

Public Works, Fire and EMS

Objective and Expected Results

Continued improvement of procedures and coordination with response agencies

Method to Determine BMP Effectiveness

Smooth response to illicit discharge

Items Needed for Annual Report

Provide copy of written procedure for response.

Measurable Goal 3.f. – Track Illicit Discharge

Track the number of illicit discharges identified, provide narrative on how they were eliminated, and submit the information in accordance with Section II E 2; and

BMP 3.f. – Illicit discharge tracking reporting

Illicit discharge tracking – report annually any illicit discharges.

Policies, Ordinances, and Written Procedures

Illicit Discharge Tracking and Response – March 29, 2006

Implementation Schedule

Respond to reports of illicit discharge – Years 1-5

Responsible Individual, Department, Division, or Unit

Public Works, Fire and EMS

Objective and Expected Results

Maintain procedures for illicit discharge tracking and response. Improve coordination with Fire and EMS department.

Method to Determine BMP Effectiveness

More efficient use of time and better documentation of illicit discharges

Items Needed for Annual Report

Provide the information in accordance with *Section II E 2*.

Measurable Goal 3.g. – Downstream MS4 Notification

Notify, in writing, any downstream regulated MS4 to which the small regulated MS4 is physically interconnected of the small regulated MS4's connection to that system.

BMP 3.g. – None Required

Additional Efforts 3.h. – Hanover County Efforts to Address Illicit Discharge

In addition to the required permit elements, the County is currently implementing the Assign a Highway Program to address litter along highway corridors, the Pooch Pal Program to address the proper disposal of dog waste, household hazardous waste collection to provide for the proper disposal of household hazardous waste, a street sweeping program for 2 weeks per year to remove particles from public right of way, and a community driven grass roots recycling program to assist communities with establishing recycling in their area.

BMP 3.h.(1) – Assign-A-Highway

The County is currently working with 3 groups on the Assign-A-Highway Program:

1. Pamunkey Regional Jail Crew
2. Hanover County Community Corrections
3. Hanover County Juvenile Court Services

Individuals are assigned to pick up litter on 22 separate highway segments in the County to reduce litter and the floatable wastes entering stormwater infrastructure.

Policies, Ordinances, and Written Procedures

Assign a Highway Outreach Program Quarterly Report. The report identifies tonnage collected and road segments that are addressed each quarter.

Implementation Schedule

Implement Assign a Highway Program – Years 1-5

Responsible Individual, Department, Division, or Unit

Waste Services Superintendent

Public Works

Objective and Expected Results

Reduced litter on highways

Method to Determine BMP Effectiveness

Tonnage collected and results of litter survey for highway segments.

Items Needed for Annual Report

Tonnage collected, road segments addressed and the results of litter survey for highway segments.

BMP 3.h.(2) - Hanover Pet Waste Management Program (Pooch Pal)

Hanover Pet Waste Management Program (Pooch Pal) – The pet waste management program places distribution boxes for bags to be used for the collection of pet wastes in public parks, recreational areas, and in neighborhoods. The county develops a network of sponsors to keep the distribution boxes full of bags to be used to collect pet wastes. This will serve to educate the public of the importance of the collection of these wastes. In year 3 of our permit, we will issue a flier discussing pet wastes effects on stormwater. This has also been included under Public Education (*see also section 1.a.(3)*)

Policies, Ordinances, and Written Procedures

Written policy to be developed

Implementation Schedule

Implement program - Years 1-5

Develop written pet waste program policy – Year 1

Develop public education flier for pet waste - Year 3

Responsible Individual, Department, Division, or Unit

Waste Services Superintendent

Public Works

Objective and Expected Results

Awareness that pet waste contribute to pollution and collection of pet waste

Method to Determine BMP Effectiveness

Amount of pet waste collected based on the number of bags used

Items Needed for Annual Report

Locations of all pet waste boxes and numbers of bags distributed to collect pet wastes in neighborhoods, parks and schools. Provide copy of the pet waste program policy in year 1. Provide a copy of the public education flier in year 3.

BMP 3.h.(3) – Household Hazardous Waste Collection

Used motor oil, used residential oil filters, used anti-freeze and automobile batteries are accepted at all convenience centers in Hanover County during normal operating hours. Special household hazardous waste is collected at a dedicated event 1 times per year.

Policies, Ordinances, and Written Procedures

Availability of these programs for household hazardous waste disposal will be advertised on Hanover County website.

Implementation Schedule

Implement household hazardous waste collection – Years 1-5

Responsible Individual, Department, Division, or Unit

Waste Services Superintendent

Public Works

Objective and Expected Results

Encourage proper disposal of household hazardous wastes.

Method to Determine BMP Effectiveness

Tonnage collected.

Items Needed for Annual Report

Tonnage collected.

BMP 3.h.(4) – Street Sweeping Program

Sweep roads within the MS4 area 2 weeks per year. Street sweeping will reduce pollutants discharged to the MS4.

Policies, Ordinances, and Written Procedures

List of roadways to be swept

Implementation Schedule

Implement street sweeping – Years 1-5

Responsible Individual, Department, Division, or Unit

Public Works

Objective and Expected Results

Remove small particles and trash from County roads

Method to Determine BMP Effectiveness

Tonnage collected.

Items Needed for Annual Report

Tonnage collected. Dates sweeping occurred.

MINIMUM CONTROL MEASURE 4 - Construction Site Stormwater Run-off Control

Hanover County shall identify, schedule, implement, evaluate and modify, as necessary, BMPs to meet the following construction site stormwater run-off control measurable goals:

Measurable Goal 4.a. – Implement Program to Address Construction Site Run-off

a. Hanover County shall develop, implement, and enforce procedures to reduce pollutants in any stormwater runoff to the regulated small MS4 from construction activities that result in a land disturbance of greater than or equal to one acre or equal to or greater than 2,500 square feet in all areas of the jurisdictions designated as subject to the Chesapeake Bay Preservation Area Designation and Management Regulations adopted pursuant to the Chesapeake Bay Preservation Act. Additionally, reduction of stormwater discharges from construction activity disturbing less than one acre must be included in the program if that construction activity is part of a larger common plan of development or sale that would disturb one acre or more.

The program procedures must include the development and implementation of, at a minimum:

- (1) An ordinance or other regulatory mechanism to require erosion and sediment controls, as well as sanctions to ensure compliance with the Erosion and Sediment Control Law and attendant regulations, to the extent allowable under state, tribal, or local law. Such ordinances and other mechanisms shall be updated as necessary;
- (2) Requirements for construction site owners and operators to implement appropriate erosion and sediment control best management practices as part of an erosion and sediment control plan that is consistent with the Erosion and Sediment Control Law and attendant regulations and other applicable requirements of state, tribal, or local law. Where determined appropriate by the operator, the operator shall encourage the use of structural and non-structural design techniques to create a design that has the goal of maintaining or replicating predevelopment runoff characteristics and site hydrology;
- (3) Requirements for construction site owners and operators to secure authorization to discharge stormwater from construction activities under a VSMP construction permit for construction activities that result in a land disturbance of greater than or equal to one acre or equal to or greater than 2,500 square feet in all areas of the jurisdictions designated as subject to the Chesapeake Bay Preservation Area Designation and Management Regulations adopted pursuant to the Chesapeake Bay Preservation Act. Additionally, stormwater discharges from construction activity disturbing less than one acre must secure authorization to discharge under a VSMP permit if that construction activity is part of a larger common plan of development or sale that would disturb one acre or more;
- (4) Procedures for receipt and consideration of information submitted by the public; and
- (5) Procedures for site inspection and enforcement of control measures.

b. The operator shall ensure that plan reviewers, inspectors, program administrators and construction site owners and operators obtain the appropriate certifications as required under the Erosion and Sediment Control Law;

c. The operator shall track regulated land-disturbing activities and submit the following information in accordance with Section II E:

- (1) Total number of regulated land-disturbing activities; and
- (2) Total disturbed acreage.

BMP 4.a. – Implement Erosion and Sediment Control Program Consistent with State Regulations

Hanover County will develop implement and enforce a program of plan review, site inspection and enforcement consistent with Sediment and Erosion Control regulations (4 VAC 50-30) and Hanover County Sediment and Erosion Control Ordinance. Update as needed for consistency with state regulations.

Policies, Ordinances, and Written Procedures

Requirements for erosion and sediment control plans, permits and bonds – Hanover County Code Chapter 10, Article I, Sec. 10-3

Requirement for VSMP permit – Hanover County Code Chapter 10, Article IV, Sec. 10-72

Implementation Schedule

Implement Erosion and Sediment Control Program - Years 1-5

Responsible Individual, Department, Division, or Unit

Public Works

Objective and Expected Results

Ordinances requiring erosion and sediment controls. Requirements for construction site operators to implement erosion and sediment control requirements. Requirements for construction site operators to obtain a VSMP permit. Reduction in sediment leaving construction site to MS4 facilities.

Method to Determine BMP Effectiveness

Implement code requirements cited above.

Items Needed for Annual Report

None

Measurable Goal 4.b. – Personnel Certification for Erosion and Sediment Control

The operator shall have policies in place requiring that plan reviewers, inspectors, program administrators and construction site operators obtain the appropriate certifications as required under the Erosion and Sediment Control Law;

BMP 4.b. – Plan reviewer, inspector, and administrator certification

Plan reviewers, inspectors and program administrators will maintain certifications in Sediment and Erosion Control.

Policies, Ordinances, and Written Procedures

Requirements for Responsible Land Disturber – Hanover County Code Chapter 10, Article I, Sec. 10-4

Implementation Schedule

Appropriate erosion and sediment control certifications required - Years 1-5

Responsible Individual, Department, Division, or Unit

Public Works, Building Inspections

Objective and Expected Results

Appropriate certification within 12 months of employment

Method to Determine BMP Effectiveness

Maintain tracking list of employees, position and certification

Items Needed for Annual Report

List of certified employees

Measurable Goal 4.c. – Land Disturbing Activity Tracking

The operator shall track regulated land-disturbing activities and submit the following information in accordance with *Section II E 2*:

- (1) Total number of regulated land-disturbing activities; and
- (2) Total disturbed acreage.

BMP 4.c. – Land disturbance tracked in annual report

Regulated land disturbing activities will be tracked and reported in the annual report

Policies, Ordinances, and Written Procedures

Hanover County database is used to track approved land disturbing activities

Implementation Schedule

Track and report regulated land disturbing activities - Years 1-5

Responsible Individual, Department, Division, or Unit

Public Works

Objective and Expected Results

Determine number and acreage of regulated land disturbance in Hanover County

Method to Determine BMP Effectiveness

Hanover County database

Items Needed for Annual Report

Number of regulated land disturbing activities and the associated and acreage of land disturbance.

MINIMUM CONTROL MEASURE 5 - Post-construction Stormwater Management in New Development and Redevelopment

The operator shall develop, implement, and enforce procedures to address stormwater runoff to the regulated small MS4 from new development and redevelopment projects that disturb greater than or equal to one acre or equal to or greater than 2,500 square feet in all areas of the jurisdictions designated as subject to the Chesapeake Bay Preservation Area Designation and Management Regulations adopted pursuant to the Chesapeake Bay Preservation Act, including projects less than one acre that are part of a larger common plan of development or sale, that discharge into the regulated small MS4. The procedures must ensure that controls are in place that would prevent or minimize water quality and quantity impacts in accordance with this section.

The operator shall:

- (1) Develop and implement strategies which include a combination of structural and/or nonstructural best management practices (BMPs) appropriate for the operator's community. Where determined appropriate by the operator, the operator shall encourage the use of structural and non-structural design techniques to create a design that has the goal of maintaining or replicating predevelopment runoff characteristics and site hydrology ;
- (2) Use an ordinance, regulation, or other mechanism to address post-construction runoff from new development and redevelopment projects to ensure compliance with the Virginia Stormwater Management Act (§10.1-603.1 et seq. of the Code of Virginia) and attendant regulations, and to the extent allowable under state, tribal or local law. Such ordinances and other mechanisms shall be updated as necessary;
- (3) Require construction site owners and operators to secure authorization to discharge stormwater from construction activities under a VSMP permit for new development and redevelopment projects that result in a land disturbance of greater than or equal to one acre or equal to or greater than 2,500 square feet in all areas of the jurisdictions designated as subject to the Chesapeake Bay Preservation Area Designation and Management Regulations adopted pursuant to the Chesapeake Bay Preservation Act. Additionally, reduction of stormwater discharges from construction activity disturbing less than one acre secure authorization to discharge under a VSMP permit if that construction activity is part of a larger common plan of development or sale that would disturb one acre or more;
- (4) Require adequate long-term operation and maintenance by the owner of structural stormwater management facilities through requiring the owner to develop a recorded inspection schedule and maintenance agreement to the extent allowable under state, tribal or local law or other legal mechanism. The operator shall additionally develop, through the maintenance agreement or other method, a mechanism for enforcement of maintenance responsibilities by the operator if they are neglected by the owner;
- (5) Conduct site inspection and enforcement measures consistent with the Virginia Stormwater Management Act and attendant regulations; and
- (7) Track all known permanent stormwater management facilities that discharge to the regulated small MS4 and submit the following information in accordance with Section II E 2:

- (a) Type of structural stormwater management facility installed as defined in the Virginia Stormwater Management Handbook;
- (b) Geographic location (HUC);
- (c) Where applicable, the impaired surface water that the stormwater management facility is discharging into; and
- (d) Number of acres treated;

Measurable Goal 5.a. – Stormwater Managed Consistent with Regulations

Provide stormwater management program consistent with all applicable regulations.

BMP 5.a.(1) – Stormwater program consistent with State regulations

Hanover County will develop implement and enforce a program consistent with State regulations.

Policies, Ordinances, and Written Procedures

Design of drainage structures and systems – Hanover County Code Chapter 12, Article I, Sec. 12-8

Hanover County Drainage Design Handbook

Hanover County Regional Stormwater Management Program

Small Municipal Separate Storm Sewer Systems - Program Plan

Implementation Schedule

Implement stormwater program - Years 1-5

Responsible Individual, Department, Division, or Unit

Public Works

Objective and Expected Results

A stormwater management program consistent with applicable regulations and ordinances

Method to Determine BMP Effectiveness

Plan review, site inspection, and public and private facility maintenance

Items Needed for Annual Report

None

BMP 5.a.(2) – VSMP construction permit for land disturbance

Hanover County requires construction site owners and operators in the urbanized area to apply for authorization to discharge stormwater from construction activities under a VSMP permit for new development and redevelopment projects that result in a land disturbance of greater than or equal to one acre or equal to or greater than 2,500 square feet in all areas of the jurisdictions designated as subject to the Chesapeake Bay Preservation Area Designation and Management Regulation

Policies, Ordinances, and Written Procedures

Applicability and Additional Requirements – Hanover County Code Chapter 10, Article IV, Sec. 10-72

Implementation Schedule

Implement VSMP construction permit program - Years 1-5

Responsible Individual, Department, Division, or Unit

Public Works

Objective and Expected Results

Regulated construction activities in the MS4 area apply for a VSMP construction permit prior to land disturbing activities

Method to Determine BMP Effectiveness

Regulated land disturbing activities in the MS4 area apply for VSMP construction permit prior to approval of land disturbance permits.

Items Needed for Annual Report

None

BMP 5.a.(3) – Maintenance agreement required

Hanover County requires adequate long-term operation and maintenance by the owner of structural stormwater management facilities through requiring the owner to develop a recorded inspection schedule and maintenance. Hanover County provides for enforcement of maintenance responsibilities. See *BMP6.b. for inspection program*.

Policies, Ordinances, and Written Procedures

Hanover County Drainage Design Handbook

Hanover County Stormwater Basin Inspection and Maintenance Requirements, March 15, 2007, and as amended.

Implementation Schedule

Maintenance agreements required for stormwater facilities - Years 1-5

Responsible Individual, Department, Division, or Unit

Public Works

Objective and Expected Results

Maintain stormwater facilities in proper working order consistent with applicable maintenance agreements,

Method to Determine BMP Effectiveness

Facilities maintained in proper working order

Items Needed for Annual Report

Stormwater basin tracking list with repair and maintenance status delineated

BMP 5.a.(4) – Site inspection and enforcement

Hanover County will conduct site inspection and enforcement measures consistent with the Virginia Stormwater Management Act and attendant regulations

Policies, Ordinances, and Written Procedures

Hanover County Drainage Design Handbook

Hanover County Stormwater Basin Inspection and Maintenance Requirements, March 15, 2007, and as amended

Implementation Schedule

Inspection and enforcement required for stormwater facilities - Years 1-5

Responsible Individual, Department, Division, or Unit

Public Works

Objective and Expected Results

Proper implementation of stormwater requirements

Method to Determine BMP Effectiveness

Plan review and site inspection to ensure consistency with design

Items Needed for Annual Report

None

BMP 5.a.(5) – Facility tracking

Hanover County will track all known permanent stormwater management facilities that discharge to the regulated small MS4 and submit the required information.

Policies, Ordinances, and Written Procedures

None

Implementation Schedule

Track stormwater facilities - Years 1-5

Responsible Individual, Department, Division, or Unit

Public Works

Objective and Expected Results

Track all stormwater facilities

Method to Determine BMP Effectiveness

List of all stormwater facilities in Hanover County is maintained

Items Needed for Annual Report

Tracking list for stormwater facilities

MINIMUM CONTROL MEASURE 6 - Pollution Prevention/Good Housekeeping for Municipal Operations

Develop and implement an operation and maintenance program consistent with the MS4 Program Plan that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations. Using training materials including those available from EPA, state, tribe, or other organizations, the program shall include employee training to prevent and reduce stormwater pollution from activities such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and MS4 maintenance. The operator is encouraged to review the Environmental Protection Agency's (EPA's) National Menu of Stormwater Best Management Practices for ideas and strategies to incorporate into its program. The menu can be accessed at <http://cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm>.

a. The operator shall identify, implement, evaluate and modify, as necessary, BMPs to meet the following pollution prevention/good housekeeping for municipal operations measurable goals:

(6) For state agencies with lands where nutrients are applied, nutrient management plans shall be developed and implemented in accordance with the requirements of §10.1-104.4 of the Code of Virginia

Measurable Goal 6.a. – Employee Education

Provide a program plan with a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations.

BMP 6.a. – Employee Education

Employee Education - The County will perform an educational program for employees including employees of maintenance shops, parks and recreation grounds maintenance with the goal of preventing or reducing pollutant runoff from municipal operations. This is also addressed under BMP1.b.(2) for Measurable Goal 1b which requires increased employee knowledge of hazards associated with illegal discharges and improper disposal of waste.

Policies, Ordinances, and Written Procedures

Content of educational program to be developed

Implementation Schedule

Conduct employee education – Year 1-5 with all employees trained during the term of the permit

Responsible Individual, Department, Division, or Unit

Public Works

Objective and Expected Results

Increase employee knowledge with respect to stormwater pollution prevention. Hazards associated with poor housekeeping, improper material storage, spills, vehicle maintenance, outdoor activities, and waste management.

Method to Determine BMP Effectiveness

Maintain training records

Items Needed for Annual Report

Content of seminars

Measurable Goal 6.b. – Operation and maintenance programs

Operation and maintenance programs including activities, schedules, and inspection procedures shall include provisions and controls to reduce pollutant discharges into the regulated small MS4 and receiving surface waters;

BMP 6.b. – Stormwater basin inspection program

Stormwater Basin Inspection Program - The County will perform Stormwater Basin inspections for publicly owned stormwater facilities. The County will administer a program monitoring the inspection of private stormwater basins. This is also addressed under BMP5 for Measurable Goal 5 which requires a program to address post construction storm water management.

Policies, Ordinances, and Written Procedures

Hanover County Stormwater Basin Inspection and Maintenance Requirements, March 15, 2007, as amended.

Implementation Schedule

Conduct basin inspections – Years 1-5

Responsible Individual, Department, Division, or Unit

Public Works

Objective and Expected Results

Maintain stormwater basins in good condition.

Method to Determine BMP Effectiveness

Maintain records of basin inspections and repairs

Items Needed for Annual Report

Basin list with inspection status

Measurable Goal 6.c. – Illicit Discharge Elimination

Illicit discharges shall be eliminated from storage yards, fleet or maintenance shops, outdoor storage areas, rest areas, waste transfer stations, and other municipal facilities

BMP 6.c. – Illicit discharge

Notify all Hanover County storage yards, fleet or maintenance shops, outdoor storage areas, rest areas, waste transfer stations, and other municipal facilities the sources of illicit discharges and the potential to pollute. Provide policy documents to these facilities.

Policies, Ordinances, and Written Procedures

Policy to be developed

Implementation Schedule

Develop policy – Year 2

Develop inspection procedures – Year 3

Implement inspections – Years 4-5

Responsible Individual, Department, Division, or Unit

Public Works

Objective and Expected Results

Elimination illicit discharges from municipal operations

Method to Determine BMP Effectiveness

Inspections beginning in year 3

Items Needed for Annual Report

Inspection results

Measurable Goal 6.d. – Material Management

Waste materials shall be disposed of properly;

Materials that are soluble or erodible shall be protected from exposure to precipitation;

Materials including, but not limited to, fertilizers and pesticides, that have the potential to pollute receiving surface waters shall be applied according to manufacturer’s recommendations; and

BMP 6.d. – Materials management notification

Notify all Hanover County storage yards, fleet or maintenance shops, outdoor storage areas, rest areas, waste transfer stations, and other municipal facilities of the requirements for managing wastes, soluble/erodible materials and chemicals with the potential to pollute. Provide policy document to these facilities.

Policies, Ordinances, and Written Procedures

Policy to be developed.

Implementation Schedule

Develop policy – Year 2

Develop inspection procedures – Year 3

Implement inspections – Years 4-5

Responsible Individual, Department, Division, or Unit

Public Works

Objective and Expected Results

Proper storage of soluble/erodible materials and chemicals with the potential to pollute.

Method to Determine BMP Effectiveness

Inspection starting year 3

Items Needed for Annual Report

Inspection results

Items	Year 1	Year 2	Year 3	Year 4	Year 5
<u>MINIMUM CONTROL MEASURE 1 - Public Education and Outreach</u>					
<p><u>Measurable Goal 1.a - Increased Individual and Household Knowledge</u></p> <p>Increased individual and household knowledge about the steps that they can take to reduce stormwater pollution, placing priority on reducing impacts to impaired waters and other local water pollution concerns;</p>					
<p><u>BMP 1.a.(1) - Watershed education for students</u></p> <p>The County will continue to support the efforts of the Hanover/Caroline Soil and Water Conservation Service to provide a meaningful watershed experience for Hanover County Students.</p>					
<p>Continue watershed education for students - Years 1-5</p>					
<p><u>BMP 1.a.(2) - Support of Master Gardeners program</u></p> <p>Support of Master Gardeners Program - The County will continue to participate in seminars for the Master Gardeners program. The Master Gardeners are environmental educators who we have routinely included in our educational efforts related to our MS4 program. Master Gardeners are environmental stewards who, in turn, educate the public regarding water quality and other environmental issues.</p>					
<p>Continue to support Master Gardeners program – Years 1-5</p>					
<p><u>BMP 1.a.(3) - Hanover Pet Waste Management Program (Pooch Pal)</u></p> <p>Hanover Pet Waste Management Program (Pooch Pal) – The pet waste management program places post mounted distribution boxes for bags to be used for the collection of pet wastes in public parks, recreational areas, and in neighborhoods. A network of sponsors keeps the distribution boxes full of bags to be used to collect pet wastes. This will serve to educate the public of the importance of the collection of these wastes. In year 3 of our permit, we will develop and circulate a flier discussing pet wastes effects on stormwater. <i>See also BMP 3.h.(2).</i></p>	<p><u>Note:</u> This provision will help to prevent illicit discharge under Minimum Control Measure 3 see also BMP 3.h(2)</p>				
<p>Implement program - Years 1-5</p>					
<p>Develop written pet waste program policy – Year 1</p>					

<u>Items</u>	Year 1	Year 2	Year 3	Year 4	Year 5
Develop public education flier for pet waste - Year 3					
<p><u>Measurable Goal 1.b - Increased Public Employee, Business and Public Knowledge</u></p> <p>Increased public employee, business, and general public knowledge of hazards associated with illegal discharges and improper disposal of waste, including pertinent legal implications;</p>					
<p><u>BMP 1.b.(1) - Stormwater Fact Sheets</u></p> <p>Stormwater Fact Sheets - The County will continue to maintain stormwater fact sheets on the County's website. These fact sheets will be distributed to the public, businesses, and the construction community as appropriate. Also, new fact sheets will be developed as needed. Develop construction site inspection checklist items to document compliance with fact sheet elements.</p>	<p><u>Note:</u> This provision will help to prevent illicit discharge under Minimum Control Measure 3</p>				
Maintain and distribute stormwater fact sheets - Years 1-5					
Develop fact sheet for retail waste management – Year 2					
Implement checklist items to document compliance with E&S related requirements by - Year 1					
<p><u>BMP 1.b.(2) - Employee education</u></p> <p>Employee Education - The County will perform educational programs for employees including employees of maintenance shops, parks and recreation grounds maintenance with the ultimate goal of preventing or reducing pollutant runoff from municipal operations.</p>	<p><u>Note:</u> Also see BMP 6.a for Employee Education</p>				
Conduct employee education – Year 2					
<p><u>BMP 1.b.(3) - Stormwater Web Resources</u></p> <p>The County will develop a webpage to provide links to stormwater resources.</p>					
Update website stormwater resources - Year 3					

<u>Items</u>	Year 1	Year 2	Year 3	Year 4	Year 5
<p><u>Measureable Goal 1.c. – Increased Individual and Group Involvement</u></p> <p>Increased individual and group involvement in local water quality improvement initiatives including the promotion of local restoration and clean up projects, programs, groups, meetings and other opportunities for public involvement;</p>					
<p><u>BMP 1.c.(1) – Adopt a Highway</u></p> <p>The County will publicize the State’s adopt-a-highway program on the Hanover County website.</p>					
<p>Web site developed promoting Adopt-A-Highway – Year 2</p>					
<p>Support Adopt-A-Highway program - Years 1-5</p>					
<p><u>BMP 1.c.(3) – Adopt-A-Stream</u></p> <p>The County will promote the State’s adopt-a-stream program on the Hanover County website. Waste disposal will be free for any wastes collected through this program.</p>					
<p>Web-site developed promoting Adopt-A-Stream – Year 2</p>					
<p>Support Adopt-A-Stream program - Years 1-5</p>					
<p><u>BMP 1.c.(4) – Development Community Meeting</u></p> <p>Development Community Meeting – Hanover County sponsors a regular development community meeting. Topics to discuss will include initiatives regarding stormwater, erosion and sediment control, Chesapeake Bay preservation and associated issues.</p>					
<p>Conduct Development Community Meetings - Years 1-5</p>					

<u>Items</u>	Year 1	Year 2	Year 3	Year 4	Year 5
<p><u>Diverse Strategies 1.d. – Diverse Strategies</u> Diverse strategies to target audiences specific to the area serviced by the regulated small MS4;</p>					
<p><u>BMP 1.d.(1) – Diverse Strategies</u> The County will promote increased knowledge related to the MS4 program using diverse strategies including the County website, fliers, fact sheets, presentations, education of Master Gardeners, and Quarterly Developer meetings. <i>Refer to specific BMP activities outline in Measurable Goal 1.</i></p>	<p><u>Note:</u> Refer to the diverse BMPs activities outlined in Measurable Goal 1</p>				
<p>Implement diverse strategies to promote the MS4 program - Years 1-5</p>					
<p><u>Measurable Goal 1.e – Improved Outreach</u> Improved outreach program to address viewpoints and concerns of target audiences, with recommended focus on minorities, disadvantaged audiences and minors;</p>					
<p><u>BMP 1.e.(1) – Identify audiences</u> Identify target audiences in Hanover that require information in order to avoid contributing to storm water pollution.</p>					
<p>Identify target audiences to improve outreach - Years 1-5</p>					
<p><u>BMP 1.e.(2) – Develop strategies to address target audiences</u> Develop strategies to address target audiences identified under these provisions.</p>					
<p>Develop strategies to address target audiences for improved outreach - Years 1-5</p>					

Items	Year 1	Year 2	Year 3	Year 4	Year 5
<p><u>BMP 1.e.(3) – Grass Roots Neighborhood Recycling</u></p> <p>In response to citizen input, Hanover has created special service districts that communities may participate in at their own option to increase recycling in individual subdivisions. At each community meeting the options available under the program are presented. In addition, information is presented on composting and other programs that encourage environmental responsibility.</p>					
<p>Implement grass roots driven neighborhood recycling – Years 1-5</p>					
<p><u>Measurable Goal 1.f. – Targeted Strategies</u></p> <p>Targeted strategies towards local groups of commercial, industrial, and institutional entities likely to have significant stormwater impacts.</p>					
<p><u>BMP 1.f.(1) – Commercial Site Inspections</u></p> <p>Commercial site inspections – The County will conduct random inspections of designated retail areas and note any litter trash or stormwater issues to the management of the business located there.</p>	<p><u>Note:</u> This provision will help to prevent illicit discharge under Minimum Control Measure 3</p>				
<p>Conduct Commercial Site Inspections - Years 1-5</p>					

<u>Items</u>	Year 1	Year 2	Year 3	Year 4	Year 5
<u>MINIMUM CONTROL MEASURE 2 - Public Involvement/Public Participation</u>					
<p><u>Measurable Goal 2.a. – Promote Availability of MS4 Program Plan</u></p> <p>Promote the availability of the operator's MS4 Program Plan and any modifications for public review and comment. Public notice shall be given by any method reasonably calculated to give actual notice of the action in question to the persons potentially affected by it, including press releases or any other forum or medium to elicit public participation. Provide access to or copies of the MS4 Program Plan or any modifications upon request of interested parties in compliance with all applicable freedom of information regulations;</p>					
<p><u>BMP 2.a.(1) – Place MS4 Program Plan on Hanover Website</u></p> <p>The environmental section of the Public Works website will be updated to specifically promote the MS4 program plan and provide a contact for obtaining the plan and information on the MS4 program. The MS4 program plan will be placed on the website.</p>					
<p>MS4 Program Plan place on website - Year 1</p>					
<p><u>Measurable Goal 2.b. – Provide Annual Report Upon Request</u></p> <p>Provide access to or copies of the annual report upon request of interested parties in compliance with all applicable freedom of information regulations; and</p>					
<p>Make Annual Report available -Years 1-5</p>					

<u>Items</u>	Year 1	Year 2	Year 3	Year 4	Year 5
<p><u>Measurable Goal 2.c. – Participate in Activities Aimed at Reducing Pollutant Loads</u></p> <p>Participate, through promotion, sponsorship, or other involvement, in local activities aimed at increasing public participation to reduce stormwater pollutant loads and improve water quality.</p>					
<p><u>BMP 2.c. – Identify organizations aimed at improving water quality</u></p> <p>Hanover County will identify the local organizations aimed at improving water quality</p>					
<p>Identify organizations aimed at improving water quality - Years 1-5</p>					

<u>Items</u>	Year 1	Year 2	Year 3	Year 4	Year 5
<u>MINIMUM CONTROL MEASURE 3 - Illicit Discharge Detection and Elimination</u>					
<p><u>Measurable Goal 3.a. – Illicit Discharge Program</u></p> <p>Develop, implement and enforce a program to detect and eliminate illicit discharges, as defined at 4VAC50-60-10, into the regulated small MS4</p>					
<p><u>BMP 3.a. – Outfall Screening</u></p> <p>Hanover County will screen all regulated outfalls during the term of the MS4 permit. Focus will be placed on watersheds with impaired stream segments. Watersheds where waste load allocations have been established will receive greatest focus.</p>					
<p>Screen all outfalls during the term of the MS4 permit – Years 1-5</p>					
<p><u>Measurable Goal 3.b. – Storm Sewer Sytem Mapping</u></p> <p>Develop, if not already completed, and maintain, an updated storm sewer system map, showing the location of all known outfalls of the regulated small MS4 including those physically interconnected to a regulated MS4, the associated surface waters and HUCs, and the names and locations of all impaired surface waters that receive discharges from those outfalls. The operator shall also estimate the acreage within the regulated small MS4 discharging to each HUC and impaired water;</p>					
<p><u>BMP 3.b. – Map outfalls</u></p> <p>Maps will be prepared of all known outfalls, the associated HUUS and the names and locations of impaired surface waters receiving discharges for the outfalls. The acreage discharging to each HUC and impaired water will be noted.</p>					
<p>Develop standard content of mapping with GIS department – Year 1</p>					
<p>Develop procedure to add new outfall locations – Year 2</p>					
<p>Provide estimate of acreage directly draining to impaired waters – Years 1-5</p>					

<u>Item</u>	Year 1	Year 2	Year 3	Year 4	Year 5
<p><u>Measurable Goal 3.c. – Prohibit Non-stormwater Discharges Through Ordinance</u></p> <p>To the extent allowable under state, tribal or local law or other regulatory mechanism, effectively prohibit, through ordinance, or other regulatory mechanism, non-stormwater discharges into the storm sewer system and implement appropriate enforcement procedures and actions;</p>					
<p><u>BMP 3.c. – Review Ordinances</u></p> <p>Review ordinances to ensure prohibition of non-stormwater discharges as well as appropriate enforcement procedures and actions. Ensure consistency with state and federal regulations.</p>					
<p>Review ordinances for compliance with federal and state regulations Year 4</p>					
<p><u>Measurable Goal 3.d. – Develop Procedures to Detect Illicit Discharge</u></p> <p>Develop and implement procedures to detect and address nonstormwater discharges, including illegal dumping, to the regulated small MS4;</p>					
<p><u>BMP 3.d.(1) – Develop procedures to detect illicit discharge</u></p> <p>Outfall screening will be used to detect illicit discharge. In addition, procedures will be developed to inform property owners of the laws associated with illegal dumping and waste disposal. Hanover will develop a formal written procedure of this process. Continue to promote recycling and household hazardous waste management.</p>					
<p>Notification of local requirements for waste disposal – Years 1-5</p>					
<p>Prepare written procedure for property owner notification of illicit discharge – Year 1</p>					

<u>Items</u>	Year 1	Year 2	Year 3	Year 4	Year 5
<p><u>Measurable Goal 3.e. – Prevent or Minimize Discharge of Hazardous Substances</u></p> <p>Prevent or minimize to the maximum extent practicable, the discharge of hazardous substances or oil in the stormwater discharge(s) from the regulated small MS4. In addition, the MS4 Program must be reviewed to identify measures to prevent the recurrence of such releases and to respond to such releases, and the program must be modified where appropriate. This permit does not relieve the operator or the responsible part(ies) of any reporting requirements of 40 CFR Part 110 (2001), 40 CFR Part 117 (2001) and 40 CFR Part 302 (2001) or §62.1-44.34:19 of the Code of Virginia;</p>					
<p><u>BMP 3.e. – Review response procedures for illicit discharge</u></p> <p>Review procedures to respond to discharges of hazardous substances including oil to the small MS4. Update written procedures as necessary. Respond to releases as appropriate.</p>					
<p>Coordinate illicit discharge response procedures with Fire Marshall – Years 1-5</p>					
<p>Respond to illicit discharges – Years 1-5</p>					
<p>Update of written procedure – as needed</p>					
<p><u>Measurable Goal 3.f. – Track Illicit Discharge</u></p> <p>Track the number of illicit discharges identified, provide narrative on how they were eliminated, and submit the information in accordance with Section II E 2; and</p>					
<p><u>BMP 3.f. – Illicit discharge tracking reporting</u></p> <p>Report annually any illicit discharges.</p>					
<p>Respond to reports of illicit discharge – Years 1-5</p>					

<u>Items</u>	Year 1	Year 2	Year 3	Year 4	Year 5
<p><u>Measurable Goal 3.g. – Downstream MS4 Notification</u></p> <p>Notify, in writing, any downstream regulated MS4 to which the small regulated MS4 is physically interconnected of the small regulated MS4's connection to that system.</p>					
<p><u>BMP 3.g. – None Required</u></p>					
<p><u>Additional Efforts 3.h. – Hanover County Efforts to Address Illicit Discharge</u></p> <p>In addition to the required permit elements, the County is currently implementing the Assign a Highway Program to address litter along highway corridors, the Pooch Pal Program to address the proper disposal of dog waste, household hazardous waste collection to provide for the proper disposal of household hazardous waste, a street sweeping program for 2 weeks per year to remove particles from public right of way, and a community driven grass roots recycling program to assist communities with establishing recycling in their area.</p>					
<p><u>BMP 3.h.(1) – Assign-A-Highway</u></p> <p>The County is currently working with 3 groups on the Assign-A-Highway Program:</p> <ol style="list-style-type: none"> 1. Pamunkey Regional Jail Crew 2. Hanover County Community Corrections 3. Hanover County Juvenile Court Services <p>Individuals are assigned to pick up litter on 22 separate highway segments in the County to reduce litter and the floatable wastes entering stormwater infrastructure.</p>					
<p>Implement Assign a Highway Program – Years 1-5</p>					

<u>Items</u>	Year 1	Year 2	Year 3	Year 4	Year 5
<p><u>BMP 3.h.(2) - Hanover Pet Waste Management Program (Pooch Pal)</u></p> <p>Hanover Pet Waste Management Program (Pooch Pal) – The pet waste management program places distribution boxes for bags to be used for the collection of pet wastes in public parks, recreational areas, and in neighborhoods. The county develops a network of sponsors to keep the distribution boxes full of bags to be used to collect pet wastes. This will serve to educate the public of the importance of the collection of these wastes. In year 3 of our permit, we will issue a flier discussing pet wastes effects on stormwater. This has also been included under Public Education (<i>see also section 1.a.(3)</i>)</p>					
Implement program - Years 1-5					
Develop written pet waste program policy – Year 1					
Develop public education flier for pet waste - Year 3					
<p><u>BMP 3.h.(3) – Household Hazardous Waste Collection</u></p> <p>Used motor oil, used residential oil filters, used anti-freeze and automobile batteries are accepted at all convenience centers in Hanover County during normal operating hours. Special household hazardous waste is collected at a dedicated event 1 times per year.</p>					
Implement household hazardous waste collection – Years 1-5					
<p><u>BMP 3.h.(4) – Street Sweeping Program</u></p> <p>Sweep roads within the MS4 area 2 weeks per year. Street sweeping will reduce pollutants discharged to the MS4.</p>					
Implement street sweeping – Years 1-5					

<u>Items</u>	Year 1	Year 2	Year 3	Year 4	Year 5
<u>MINIMUM CONTROL MEASURE 4 - Construction Site Stormwater Run-off Control</u>					
<p><u>BMP 4.a. – Implement Erosion and Sediment Control Program Consistent with State Regulations</u></p> <p>Hanover County will develop implement and enforce a program of plan review, site inspection and enforcement consistent with Sediment and Erosion Control regulations (4 VAC 50-30) and Hanover County Sediment and Erosion Control Ordinance. Update as needed for consistency with state regulations.</p>					
<p>Implement Erosion and Sediment Control Program - Years 1-5</p>					
<p><u>Measurable Goal 4.b. – Personnel Certification for Erosion and Sediment Control</u></p> <p>The operator shall have policies in place requiring that plan reviewers, inspectors, program administrators and construction site operators obtain the appropriate certifications as required under the Erosion and Sediment Control Law;</p>					
<p><u>BMP 4.b. – Plan reviewer, inspector, and administrator certification</u></p> <p>Plan reviewers, inspectors and program administrators will maintain certifications in Sediment and Erosion Control.</p>					
<p>Appropriate erosion and sediment control certifications required - Years 1-5</p>					
<p><u>Measurable Goal 4.c. – Land Disturbing Activity Tracking</u></p> <p>The operator shall track regulated land-disturbing activities and submit the following information in accordance with Section II E 2:</p> <p>(1) Total number of regulated land-disturbing activities; and</p> <p>(2) Total disturbed acreage.</p>					
<p><u>BMP 4.c. – Land disturbance tracked in annual report</u></p> <p>Regulated land disturbing activities will be tracked and reported in the annual report</p>					
<p>Track and report land disturbing activities - Years 1-5</p>					

<u>Items</u>	Year 1	Year 2	Year 3	Year 4	Year 5
<u>MINIMUM CONTROL MEASURE 5 - Post-construction Stormwater Management in New Development and Redevelopment</u>					
<p><u>Measurable Goal 5.a. – Stormwater Managed Consistent with Regulations</u> Provide stormwater management program consistent with all applicable regulations.</p>					
<p><u>BMP 5.a.(1) – Stormwater program consistent with State regulations</u> Hanover County will develop implement and enforce a program consistent with State regulations.</p>					
<p>Implement stormwater program - Years 1-5</p>					
<p><u>BMP 5.a.(2) – VSMP construction permit for land disturbance</u> Hanover County requires construction site owners and operators in the urbanized area to apply for authorization to discharge stormwater from construction activities under a VSMP permit for new development and redevelopment projects that result in a land disturbance of greater than or equal to one acre or equal to or greater than 2,500 square feet in all areas of the jurisdictions designated as subject to the Chesapeake Bay Preservation Area Designation and Management Regulation</p>					
<p>Implement VSMP construction permit program - Years 1-5</p>					
<p><u>BMP 5.a.(3) – Maintenance agreement required</u> Hanover County requires adequate long-term operation and maintenance by the owner of structural stormwater management facilities through requiring the owner to develop a recorded inspection schedule and maintenance. Hanover County provides for enforcement of maintenance responsibilities. See <i>BMP6.b. for inspection program.</i></p>					
<p>Maintenance agreements required for stormwater facilities - Years 1-5</p>					
<p><u>BMP 5.a.(4) – Site inspection and enforcement</u> Hanover County will conduct site inspection and enforcement measures consistent with the Virginia Stormwater Management Act and attendant regulations</p>					
<p>Inspection and enforcement required for stormwater facilities - Years 1-5</p>					

Note: See BMP 6.b for inspection program

<u>Items</u>	Year 1	Year 2	Year 3	Year 4	Year 5
<p><u>BMP 5.a.(5) – Facility tracking</u></p> <p>Hanover County will track all known permanent stormwater management facilities that discharge to the regulated small MS4 and submit the required information.</p>					
Track stormwater facilities - Years 1-5					

<u>Items</u>	Year 1	Year 2	Year 3	Year 4	Year 5
<u>MINIMUM CONTROL MEASURE 6 - Pollution Prevention/Good Housekeeping for Municipal Operations</u>					
<p><u>Measurable Goal 6.a. – Employee Education</u> Provide a program plan with a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations.</p>					
<p><u>BMP 6.a. – Employee Education</u> Employee Education - The County will perform an educational program for employees including employees of maintenance shops, parks and recreation grounds maintenance with the goal of preventing or reducing pollutant runoff from municipal operations. This is also addressed under BMP1.b.(2) for Measurable Goal 1b which requires increased employee knowledge of hazards associated with illegal discharges and improper disposal of waste.</p>					
<p>Conduct employee education – Year 1-5 with all employees trained during the term of the permit</p>					
<p><u>Measurable Goal 6.b – Operation and maintenance programs</u> Operation and maintenance programs including activities, schedules, and inspection procedures shall include provisions and controls to reduce pollutant discharges into the regulated small MS4 and receiving surface waters;</p>					
<p><u>BMP 6.b. – Stormwater basin inspection program</u> Stormwater Basin Inspection Program - The County will perform Stormwater Basin inspections for publicly owned stormwater facilities. The County will administer a program monitoring the inspection of private stormwater basins. This is also addressed under BMP5 for Measurable Goal 5 which requires a program to address post construction storm water management.</p>					
<p>Conduct basin inspections – Years 1-5</p>					

Note: Also see BMP 1.b(2) for Employee Education

Note: See Minimum Control Measure 5 for post construction stormwater requirements

<p><u>Measurable Goal 6.c. – Illicit Discharge Elimination</u></p> <p>Illicit discharges shall be eliminated from storage yards, fleet or maintenance shops, outdoor storage areas, rest areas, waste transfer stations, and other municipal facilities</p>					
<p><u>BMP 6.b. – Illicit discharge</u></p> <p>Notify all Hanover County storage yards, fleet or maintenance shops, outdoor storage areas, rest areas, waste transfer stations, and other municipal facilities the sources of illicit discharges and the potential to pollute. Provide policy documents to these facilities.</p>	<p><u>Note:</u> See Minimum Control Measure 3 for illicit discharge requirements</p>				
<p>Develop policy – Year 2</p>					
<p>Develop inspection procedures – Year 3</p>					
<p>Implement inspections – Years 4-5</p>					
<p><u>Measurable Goal 6.d. – Material Management</u></p> <p>Waste materials shall be disposed of properly;</p> <p>Materials that are soluble or erodible shall be protected from exposure to precipitation;</p> <p>Materials, including but not limited to fertilizers and pesticides, that have the potential to pollute receiving surface waters shall be applied according to manufacturer’s recommendations; and</p>					
<p><u>BMP 6.d. – Materials management notification</u></p> <p>Notify all Hanover County storage yards, fleet or maintenance shops, outdoor storage areas, rest areas, waste transfer stations, and other municipal facilities of the requirements for managing wastes, soluble/erodible materials and chemicals with the potential to pollute. Provide policy document to these facilities.</p>					
<p>Develop policy – Year 2</p>					
<p>Develop inspection procedures – Year 3</p>					
<p>Implement inspections – Years 4-5</p>					